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Vol. I.

TRANSCRIPT AS STIPULATED.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1887.

No. 16.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, NELSON W. GREEN AND NOAH J. PARSONS, APPELLANTS,

vs.

GEORGE HOVEY.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF IOWA.

FILED OCTOBER 29, 1883.

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1-3 In the Circuit Court of the United States for the District of Iowa. In Equity.

To the honorable the judges of the circuit court of the United States for the eighth judicial circuit within and for the district of Iowa:

William D. Andrews and George H. Andrews, doing business in the city of New York, in the State of New York; Nelson W. Green, doing business in Springfield, in the State of Massachusetts, and Noah J. Parsons, residing and doing business in Cedar Rapids, in the State of Iowa, bring this their bill of complaint against George Hovey, residing in the county of Buchanan and in the district of Iowa aforesaid; and thereupon your orators complain and say, the said
William D. Andrews and George H. Andrews and Noah J.
4 Parsons, on information and belief—

That said Green was the original and first inventor of a new and useful improvement in wells, fully described in the letters patent hereinafter mentioned, and which had not been known or used before his said invention, and which, at the time of his application for a patent, as hereinafter mentioned, had not been for more than two years in public use or on sale with his consent or allowance.

And your orators, on information and belief, further show unto your honors that said Green, being so as aforesaid the first inventor and discoverer of said improvement, and being also a citizen of the United States, did, on the 14th day of January, 1868, upon due
application therefor, obtain letters patent of the United States
5 for said invention in due form of law, under the seal of the
Patent Office of the United States, signed by the Secretary of the Interior and countersigned by the Commissioner of Patents of the United States, bearing date the day and year last aforesaid, whereby there was granted and secured to said Green, his heirs, administrators, or assigns, or intended so to be, for the term of seventeen years from and after the date of said letters patent, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention and improvement as set forth in said letters patent, which are now remaining on record in the Patent Office of the United States, and by virtue
whereof said Green became and was the sole owner of all the
6 rights and privileges granted and secured, or intended to be
granted and secured, in and by said letters patent.

And your orators further show unto your honors that said Green, having for good and lawful cause surrendered said letters patent to the Commissioner of Patents, and having made due application therefor, and having in all things complied with the acts of Congress in such case made and provided, did, on the 9th day of May, 1871, obtain new letters patent, being for the same invention, for the residue of said term, and which were marked "reissue No. 4372," and were issued in due form of law, under the seal of the Patent Office of the United States, signed by the Secretary of the Interior

and countersigned by the Commissioner of Patents, and bear-
7 ing date the day and year last aforesaid, as by the said last-
mentioned letters patent or a duly authenticated copy thereof
ready in court to be produced will more fully and at large appear.

And your orators have ratified and adopted said reissue.

And your orators further show unto your honors that by virtue
of a certain mesne assignment duly executed the said Green did, on
the 3d day of July, 1871, assign and transfer to your orators, Wil-
liam D. Andrews and George H. Andrews, the undivided one-half of
all his, the said Green's, right, title, and interest in and to the said
invention as secured to him by said letters patent, including certain
rights which he had theretofore excepted and reserved to himself from
sundry mesne assignments by him to others before made,
8 which said instrument was duly recorded in the Patent Office
of the United States, as by said instrument or a duly authen-
ticated copy thereof and of the certificate of said recording thereto
affixed ready in court to be produced will fully and at large appear.

And your orators further show unto your honors that by virtue
of a mesne assignment duly executed the said William D. Andrews
and George H. Andrews, as the firm of William D. Andrews &
Brother, and the said Green did, on the 15th day of October, 1878,
assign and transfer to your orator, Noah J. Parsons, the undivided
one-twentieth part of their right, title, and interest in and to the
said invention as secured by said letters patent, including all
9 royalties and damages which have previously accrued and re-
main unpaid in and for the State of Iowa, excepting in the
counties of Polk, Dallas, Iowa, Tama, Woodbury, Monona, Des
Moines, and Cedar, and reserving the exclusive right to dispose of
the same to the United States for military, naval, and cemetery pur-
poses, which said instrument was duly recorded in the Patent Office
of the United States, as by said instrument or a duly authenticated
copy thereof and of the certificate of said recording thereto affixed
ready in court to be produced will fully and at large appear.

And your orators further show unto yours honors that by virtue
of the said letters patent issued to said Green as aforesaid and of the
mesne assignments, as hereinbefore recited, and by virtue of other
various mesne assignments by, to, and from the said Green
10 and others duly made, executed, and recorded in the Patent
Office of the United States, as by such instruments or duly
authenticated copies thereof and of the certificate of such recording
thereto affixed ready in court to be produced will duly and at large
appear, your orators did by virtue of the premises become and now
are the sole and exclusive owners of said letters patent and inven-
tion, and of all the rights and privileges granted and secured, or
intended to be granted and secured, thereby in and for the county
of Buchanan and district of Iowa.

And that since they became the owners thereof as aforesaid they
have invested and expended large sums of money and have been to
great trouble in and about said invention and for the purpose of carry-
ing on the business of constructing said wells and using the same
11 and making the same profitable to themselves and useful to

the public, and that said invention has been and is of great benefit and advantage, and that wells were constructed and made according to said invention and sold by said your orators to great advantage to the public, and that the public have generally acknowledged and acquiesced in the aforesaid rights of your orators; and your orators believe that they will realize and receive large gains and profits therefrom if infringements by said defendant and his confederates shall be prevented.

And your orators further show unto your honors that your orators, in connection with Orlando Bennet and Platt Conklin, being the owners of said reissue letters patent for the county of Queens,
12 in the State of New York, did, in the month of April, 1872,
file a bill in the circuit court of the United States for the eastern district of New York against Theodore A. Carman for infringement of said reissue letters patent, and praying for an injunction and an account; that said Carman appeared in said suit and filed an answer denying infringement and setting up that your orator Green was not the first and original inventor of the invention patented by said reissue letters patent, and alleging that before the invention thereof by said Green the same had been known to and used by many persons in different parts of the United States, and had been described in patents and in many printed publica-
13 tions; that said Green had forfeited his right to a patent by
said invention having been in public use and on sale for more than two years before his application for letters patent therefor; that said Green had abandoned his invention and dedicated it to the public, and that said reissue letters patent were for an invention different from that described in said original letters patent, and were therefore null and void.

That your orators filed a replication to said answer, and a very large amount of testimony was taken on both sides, the record on the part of your orators amounting to more than fourteen hundred printed pages, and that on the part of the defendant amounting to more than twelve hundred printed pages, the taking of said
14 testimony having been commenced in June, 1872, and con-
cluded in November, 1873.

That said testimony was taken at many different places, among them at Detroit, Mich.; Chicago, Ill.; Amherst, Mass.; Middletown, Ct., and at many cities and villages in the central and western parts of the State of New York, as well as in the city of New York, and witnesses were brought from several adjoining States and the District of Columbia, and that the evidence comprises the testimony of about one hundred and seventy witnesses.

That said suit was brought to a hearing on pleadings and proofs, and was elaborately argued by eminent counsel on both sides,
15 the arguments consuming many days in delivery; that said
suit was taken under advisement by the court, which thereafter rendered its decision, giving an elaborate opinion, overruling all the defendant's defenses, holding said reissue letters patent valid, and directing a decree for the complainants in conformity with the prayer of the bill of complaint for an account of profits and dam

ages, which decree was duly entered, a copy of which is hereto annexed, marked Exhibit A, and directing a perpetual injunction, which was duly issued, a copy of which is hereto annexed, marked Exhibit B, as by the record and proceedings in said suit now remaining in the office of the clerk of said court or a duly authenticated copy thereof will appear.

16 And your orators further show unto your honors that since said adjudication numerous injunctions have been issued by said court against persons using said invention in infringement of said reissue letters patent.

And your orators further show unto your honors that your orators, William D. Andrews, George H. Andrews, and Nelson W. Green, being the owners of said reissue letters patent for the county of Hennepin, in the State of Minnesota, did, in the months of November and December, 1876, and January, 1877, file separate bills in the circuit court of the United States for the district of Minnesota against O. E. Spear, Joel B. Bassett, Sweet W. Case, Stephen Pratt, Robert L. Pratt, William L. Nichols, Anthony Kelly, George
17 B. Wright, and De Witt R. Wagner for infringement of said
reissue letters patent and praying for injunction and account; that the several defendants appeared in the said suits by the same counsel and each filed the same answer denying the infringement and setting up that the reissue letters patent were false, fraudulent, and untrue and not for the same invention as patented and claimed in the original letters patent, and therefore void and of no effect; that your orator Green was not the first or original inventor of the invention patented by said reissue letters patent, and alleging that long prior to the invention thereof by said Green the same
18 had been described in certain letters patent, applications for
letters patent, and in many books, pamphlets, and publications, and that it had been long known and used by many persons in different parts of the United States; that said Greene had forfeited his right to a patent by reason of the invention having been in public use and on sale for more than two years before his application for letters patent therefor; that any letters patent issued to Greene were obtained by fraud and deceit, and that *if* he had abandoned the invention and dedicated it to the use of the public.

That your orators filed replications to said answers, and the court permitted the several defendants to unite their defenses, the
19 evidence taken in one case to be used in all; that the suit
against George B. Wright was selected for trial and a large amount of testimony was taken, nearly sixty witnesses having been examined, in five different States, during the months of August, September, October, November, and December, 1877; that said suit was brought to a hearing on pleadings and proofs, the entire evidence in the previous suit against Theodore A. Carman was submitted to the court, and the case thoroughly argued by able counsel in December, 1877; that the said suit was taken under advisement by the court, which thereafter rendered its decision, overruling all the defendant's defenses, holding said reissue letters patent valid,

and directing a decree for complainants, in conformity with
20 the prayer of the bill of complaint, for an account of profits
and damages, which decree was duly entered in each of the
several cases, a copy of which is hereto annexed, marked Exhibit C,
and directing a perpetual injunction, which was duly issued, a copy
of which is hereto annexed, marked Exhibit D, as by the records
and proceedings in said suits now remaining in the office of the clerk
of said court or a duly authenticated copy thereof will appear.

And your orators further show unto your honors that since said
adjudication by the circuit court of the United States for the district
of Minnesota large numbers of injunctions have been issued by said
court against persons using said invention in infringement of
21 said reissue letters patent, yet the said defendant, well knowing
the premises and the rights secured to your orators aforesaid,
but contriving to injure your orators and to deprive them of the
benefits and advantages which might and otherwise would accrue
unto them from said invention after the reissuing of said letters
patent as aforesaid, and your orators becoming the owners of said
reissue letters patents in, to, and for the county of Buchanan and
district of Iowa, and before the commencement of this suit, did, as
your orators are informed and believe, within the said district of
Iowa, without the license or allowance and against the will of your
orators, and in violation of their rights, and in infringements of the
aforesaid letters patent, unlawfully and wrongfully and in
22 defiance of the rights of your orators make, sell, and use wells
embracing said invention in the counties of Buchanan, Lima,
Johnson, Muscatine, Wapello, Black Hawk, and other places to your
orators unknown, all in district of Iowa aforesaid, and that he still
continues so to do, and that he is threatening to make, sell, and
use the aforesaid wells in larger quantities and to supply the market
therewith, and to continue to use the wells as constructed by him,
all in defiance of the rights acquired by and secured to your orators
as aforesaid, and to their great and irreparable loss and injury, and
by which they have been and still are being deprived of great gains
and profits which they might and otherwise would have obtained,
but which have been received and enjoyed and are being received
23 and enjoyed by the said defendant by and through his
aforesaid unlawful acts and doings.

And your orators further show unto your honors, on information
and belief, that said defendant has one or more of said wells and is
now making the same and has made and realized large profits and
advantages therefrom, but to what extent and how much exactly
your orators do not know and pray a discovery thereof; and your
orators say that the use of said invention by said defendant and his
preparation for and avowed determination to continue the same and
his other aforesaid unlawful acts in disregard and defiance of the
rights of your orators have the effect to encourage and induce others
to venture to infringe said patent in disregard of your orators'
rights.

24 And your orators further show unto your honors that they
have caused notice to be given to said defendant of said in-

fringements and of the rights of your orators in the premises, but he has disregarded said notice and still continues to make, sell, and use the same.

And your orators pray that said defendant, George Hovey, and his servants, agents, attorneys, and workmen and each and every of them may be restrained and enjoined by the order and injunction of this honorable court from directly or indirectly making, constructing, using, vending, delivering, working, or putting into practice, operation, or use or in anywise counterfeiting or imitating the said invention or any part thereof or any wells made in ac-
25 cordance therewith or like or similar to those which he has heretofore made or used, and that the said defendant may be decreed to pay the costs of this suit, and that your orators may have such further relief or such other relief as to this honorable court shall seem meet and as shall be agreeable to equity.

May it please your honors to grant unto your orators a provisional or preliminary injunction, issuing out of and under the seal of this honorable court, commanding, enjoining, and restraining the said defendant, George Hovey, and his servants, agents, attorneys, and workmen, and each and every of them, as is hereinbefore in that behalf prayed.

And forasmuch as your orators can have no adequate re-
26 lief except in this court, to the end, therefore, that the said defendant may, if he can, show why your orators should not have the relief hereby prayed, and may, upon his corporal oath and according to his best and utmost knowledge, remembrance, information, and belief, full, true, direct, and perfect answers make to the premises and to all the several matters hereinbefore stated and charged as fully and particularly as if severally and separately interrogated as to each and every of such matters, and that he may be compelled to account for and pay to your orators the profits by him acquired and the damages suffered by your orators from the aforesaid unlawful acts, and that the court may assess said profits and damages and may increase the damages to a sum not
27 exceeding three times the amount thereof:

May it please your honors to grant unto orators the writ of subpœna, issuing out of and under the seal of this honorable court, directed to the said defendant, commanding him by a certain day and under a certain penalty to be and appear in this honorable court, then and there to answer the premises and to stand to and abide such order and decree as may be made against him.

And your orators will ever pray, etc.

(Signed) WM. D. ANDREWS & BROS.
NELSON W. GREEN.
NOAH J. PARSONS,
By N. J. PARSONS.

(S'g'd) RICKEL, WEST & EASTMAN,
Solicitors for Complainants.
(S'g'd) HENRY RICKEL, *Of Counsel.*

28 UNITED STATES OF AMERICA, } ss:
District of Iowa, }

On this 9th day of Dec., 1878, before me appeared Noah J. Parsons, to me personally known, and who, being by me duly sworn, did *dispose* and say that he is one of the complainants above named; that he has read the foregoing bill in equity and knows the contents thereof, and that the same is true of his own knowledge, except as to matters therein stated on information and belief, and as to those matters he believes it to be true.

(Signed) A. N. EASTMAN,
U. S. Com. for the Dist. of Iowa.

29 At a stated term of the circuit court of the United States of America in the eastern district of New York, in the second circuit, held at the court-rooms, in the city of Brooklyn, on the second day of May, in the year of our Lord one thousand eight hundred and seventy-six.

Present: Hon. Charles L. Benedict, district judge.

EXHIBIT A.

Circuit Court of the United States for the Eastern District of New York. In Equity.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, NELSON W. GREEN, ORLANDO BENNET, and PLATT CONKLIN
vs.
THEODORE A. CARMAN.

30 This cause having come on to be heard upon the bill of complaint herein, the answer thereto of the defendant, the replication of the complainants to such answer, and the proof, oral, documentary, and written, taken and filed in said cause, and having been argued at length by counsel for the respective parties:

Now, therefore, on consideration thereof, it is ordered, adjudged, and decreed, and the court doth hereby order, adjudge, and decree, as follows, to wit:

That the reissued letters patent No. 4372 granted to Nelson W. Green on the 9th day of May, 1871, for improvements in wells, being the letters patent referred to in the bill of complaint herein, are good and valid in law.

That the said Nelson W. Green was and is the first and original inventor and discoverer of the "improvement in wells" described and claimed in the said letters patent and the specifications annexed thereto. 31

That the said William D. Andrews, George H. Andrews, Nelson W. Green, Orlando Bennet, and Platt Conklin are the exclusive owners of the said letters patent for the county of Queens, in the State of New York, within this district.

That the said Theodore A. Carman, the defendant herein, has infringed upon the said letters patent and upon the exclusive rights of the complainants under the same by the construction and use of wells, as charged in said bill of complaint.

And it is further ordered, adjudged, and decreed that the complainants do recover of the defendant the profits, gains, and advantages which the defendant has received or made or which
32 have in any way arisen or accrued to him from the infringement of the said reissued letters patent by practising, making, using, or selling the invention and thing patented, as described and secured by the said reissued letters patent No. 4372, since the grant and issue thereof on the 9th day of May, 1871, and also the damages which the complainants have or may have sustained by reason of any infringement of said reissued letters patent.

And it is further ordered, adjudged, and decreed that it be referred to B. Lincoln Benedict, Esq., special master appointed by this court, to ascertain and take and state and report to the court an account of the gains, profits, and advantages which the said defendant has received or which *has* accrued to or arisen to him since the 9th
33 day of May, 1871, from infringing the aforesaid exclusive rights of the said complainants by the construction and use of wells such as are described in the aforesaid reissued letters patent numbered 4372, and also to compute, assess, ascertain, state, and report the amount of damages which the complainants have sustained by reason of the said infringements.

And it is further ordered, adjudged, and decreed that the complainants have on such accounting the right to cause an examination of the said defendant, *ore tenus* or otherwise, and also the production of the books, vouchers, and documents of said defendant, and that said defendant attend for such purposes before said special master from time to time within this district as said master shall direct.

34 And it is also further ordered, adjudged, and decreed that a perpetual injunction be issued in this cause against the said defendant, Theodore A. Carman, restraining him, his agents, attorneys, clerks, servants, workmen, and all working or holding under or through him, from constructing or using wells such as are described in the aforesaid reissued letters patent, numbered 4372, pursuant to the prayer of said bill of complaint.

And it is further ordered, adjudged, and decreed that the complainants do recover of the defendant their costs and charges and disbursements of this suit, to be taxed.

CHAS. L. BENEDICT.

I certify the foregoing to be a true copy of the original decree entered in the above-entitled action.

B. LINCOLN BENEDICT, *Clerk.*

35 EXHIBIT B.

UNITED STATES OF AMERICA, *Eastern District of New York,* } *ss:*

I, B. Lincoln Benedict, clerk of the circuit court of the United States of America for the eastern district of New York, do hereby certify that the writings annexed to this certificate are true copies of their respective originals on file and remaining of record in my office.

In testimony whereof I have caused the seal of the said court to be hereunto affixed, at the city of Brooklyn, in the eastern district of New York, this thirty-first day of October, in the year of our Lord one thousand eight hundred and seventy-six, and of the Independence of the said United States the 101st.

B. LINCOLN BENEDICT, *Clerk.*

36 The President of the United States of America to Theodore A. Carman, his clerks, attorneys, servants, agents, and workmen, Greeting:

Whereas it has been represented to us, in our circuit court of the United States for the second circuit and the eastern district of New York, that reissued letters patent of the United States were issued and granted in due form of law on the ninth day of May, in the year of our Lord one thousand eight hundred and seventy-one, to Nelson W. Green for improvements in wells, said letters patent being known and distinguished as "reissue number 4372;

And that you, Theodore A. Carman aforesaid, have infringed the rights secured by the aforesaid letters patent by constructing 37 and using wells, contrary to the form of the statute in such case made and provided:

Now, therefore, we do strictly command and perpetually enjoin you, the said Theodore A. Carman, your clerks, attorneys, agents, servants, and workmen, under the pains and penalties which may fall on you and each of you, that you forthwith desist and refrain from constructing or using wells such as are described in the said reissued letters patent numbered 4372.

Witness the Honorable Morrison R. Waite, Chief Justice of the United States of America, at the city of Brooklyn, this third day of May, in the year of our Lord one thousand eight hundred and seventy-six.

[SEAL.] B. LINCOLN BENEDICT, *Clerk, &c.*

38 EXHIBIT C.

In the Circuit Court of the United States for the District of Minnesota. In Equity.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, and NELSON W. GREEN
against
GEORGE B. WRIGHT.

This cause came on to be heard at the December term of said court, A. D. 1887, upon pleadings and proofs, and was argued by the counsel for the respective parties.

And the court, having considered said pleadings, proofs, and arguments, upon due advisement, it is now hereby ordered, adjudged, and decreed in this cause as follows:

That the reissued letters patent No. 4372, of the United States, granted to said Nelson W. Green on the 9th day of May, 1871, 39 for improvements in wells, being the letters patent referred to in the bill of complaint herein, are good and valid in law.

That the said Nelson W. Green was and is the first inventor and discoverer of the invention of the improvement in wells described and claimed in the said letters patent and the specifications annexed thereto.

That the complainants, said William D. Andrews, George H. Andrews, and Nelson W. Green, are the exclusive owners of the said letters patent for the county of Hennepin, in the State of Minnesota, within this district, and of all rights of action for infringement thereof.

That the said defendant herein, George B. Wright, has infringed upon said letters patent, and upon the exclusive right of the complainants under the same, by the construction or use of wells,
40 as charged in said bill of complaint.

And it is further ordered, adjudged, and decreed that the complainants do recover of said defendant the profits, gains, and advantages which the said defendant has received or made or which have in any way arisen or accrued to him from the infringement of the said reissued letters patent by practising, making, using, or selling the invention and thing patented or described and secured by the said reissued letters patent No. 4372, since the grant and issue thereof on the 9th day of May, 1871, and also the damages which the complainants have or may have sustained by reason of any infringement of said letters patent by said defendant.

And it is further ordered, adjudged, and decreed that it
41 be referred to Horatio E. Mann, Esq., master of this court, to ascertain and take and state and report to this court an account of the gains and profits and advantages which the said defendant has received or which has accrued to or arisen to him since the 9th day of May, 1871, from infringing the aforesaid exclusive rights of the said complainants by the construction of, dealing in, using, or selling the said Wells such, as are described in the aforesaid reissued letters patent numbered 4372, and also to compute, assess, ascertain, state, and report the amount of damages which the complainants have sustained by reason of said infringement.

And it is further ordered, adjudged, and decreed that the complainants have on such accounting the right to cause an ex-
42 amination of said defendant, and also the production of the books, vouchers, and documents of said defendant, and that said defendant attend for such purposes before said master from time to time within this district as said master shall direct.

And it is also further ordered, adjudged, and decreed that a perpetual injunction be issued in this cause against the said defendant, George B. Wright, restraining him and his agents, attorneys, clerks, servants, workmen, and all working or holding under or through him from constructing, selling, putting down, or using wells such as are described in the aforesaid reissued letters patent number 4372, pursuant to the prayer of said bill of complaint.

And it is further ordered, adjudged, and decreed that 43 complainants do recover of the defendant their costs and disbursements of this suit to be taxed.

R. R. NELSON, *Judge.*

STATE OF MINNESOTA,
County of Ramsey, } *ss:*

I, Horatio E. Mann, the clerk of the within-named circuit court of the United States for the district of Minnesota, as such clerk, do hereby certify that I have carefully compared the foregoing paper with the original decree on file and *and* entered in the within-entitled cause and of which, as such clerk, I am the custodian, and that the same is a true and correct and — transcript of said original decree and of the whole thereof.

Witness my hand and the seal of this said court this July 10th, A. D. 1878.

H. E. MANN, *Clerk.*

44 EXHIBIT D.

In the Circuit Court of the United States, District of Minnesota.

The United States of America to George B. Wright, his agents, attorneys, clerks, servants, workingman, and all working or holding under or through him, Greeting:

Whereas William D. Andrews, George H. Andrews, and Nelson W. Green have exhibited their bill of complaint before the judges of our circuit court of the United States for the circuit within and for the district of Minnesota against you, the said George B. Wright, praying to be relieved touching the infringement by you of their rights under reissued letters patent of the United States granted and issued in due form of law on the 9th day of May, 1881, to said Nelson W. Green for "improvements in wells," said reissued 45 letters patent being known and distinguished as "reissue number 4372," and which was duly assigned to and are now owned by said William D. Andrews, George H. Andrews, and Nelson W. Green; and whereas by the decree of said court entered on the tenth day of July, A. D. 1878, it was ordered adjudged, and decreed that a writ of injunction issue under the seal of said court to restrain you and each and every one of you from constructing, making, manufacturing, selling, putting down, or using any well or wells such as are described in said reissued letters patent No. 4372:

We, therefore, in consideration thereof, do hereby strictly command and perpetually enjoin you, the said George B. Wright, your agents, attorneys, clerks, servants, workingmen, and all hold- 46 ing under or through you, under the pains and penalties which may fall upon you and each of you in case of disobedience, that you forthwith cease, desist, and refrain from constructing, making, manufacturing, selling, putting down, or using, either by or for yourself or as the servant or workingman of another, in violation of said reissued letters patent, any well or wells such as are described in said reissued letters patent No. 4372; whereof you are not to fail at your peril.

Witness the Honorable Morrison R. Waite, Chief Justice of the Supreme Court of the United States, at St. Paul, this twenty-second day of July, in the year of our Lord one thousand eight hundred and seventy-eight.

[Seal U. S. Court.]

H. E. MANN, *Clerk.*

LAMPREY & JAMES,
Complainants' Solicitors.

47 (Endorsed:) 1350. (No. 51.) United States circuit court, district of Iowa. In equity. William D. Andrews, George H. Andrews, Nelson W. Green, and Noah J. Parsons *vs.* George Hovey. Bill of complaint. Filed Dec. 10, 1878. E. R. Mason, clerk. Rickel, West & Eastman, complainants' solicitors, No. 32 Iowa avenue, Cedar Rapids. George Gifford, Milo Goodrich, B. F. Tracy, complainants' counsel.

48 And on the 10th day of December, 1878, a subpœna in chancery was issued out of the clerk's office in said cause; which said subpœna, together with the marshal's return thereon, was filed on the 26 day of December, 1878, in the words and figures following, to wit:

49 UNITED STATES OF AMERICA, } *ss:*
District of Iowa, }

The President of the United States of America to George Hovey, Greeting:

You are hereby commanded to appear before our judges of our circuit court of the United States of America for the district of Iowa, at Des Moines, in said district, on the first Monday in the month of January next, it being the 6th day of January, A. D. 1879, to answer the bill of complaint of William D. Andrews, George H. Andrews, Nelson W. Green, and Noah J. Parsons, this day filed in the clerk's office of said court, in said city of Des Moines, then and there to receive and abide by such judgment and decree as shall then or thereafter be made, upon pain of judgment being pronounced against you by default. 50

To the marshal of the district of Iowa to execute.

Witness the Hon. Morrison R. Waite, Chief Justice of the Supreme Court of the United States of America, at Des Moines aforesaid, this 10 day of December, in the year of our Lord one thousand eight hundred and seventy-eight, and of our Independence the one hundred and third year.

[L. S.] (Signed) EDWARD R. MASON, *Clerk.*

MEMORANDUM.—The within-named defendant is notified that unless he enters his appearance in the clerk's office of said court, at Des Moines aforesaid, on or before the day to which this writ is returnable the complaint will be taken against him as confessed, and a decree entered accordingly.

[L. S.] (S'g'd) EDWARD R. MASON, *Clerk.*

RICKEL, WEST & EASTMAN,
Plaintiffs' Solicitors.

51 United States Circuit Court, District of Iowa, *ss.* In Chancery.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, NELSON W. GREEN,
and NOAH J. PARSONS
vs.
GEORGE HOVEY.

To said defendant, George Hovey:

Take notice that the complainants will move this honorable court on this 27th day of Dec., A. D. 1878, at 10 of the clock in the forenoon or as soon thereafter as counsel can be heard, at the chambers of the Honorable James M. Love, one of the judges of said court, at chambers, in the city of Keokuk, in said district, that a writ of injunction issue against you, the said defendant, 52 George Hovey, upon the bill of complaint and affidavit on file with the clerk of said court in the above-entitled cause, in accordance with the prayer of the said bill of complaint therein.

Yours, &c.,
(Signed) RICKEL, WEST & EASTMAN,
Complainants' Solicitors.

Dated this 9th day of Dec., A. D. 1878.

I hereby certify that the within is a true copy of the original subpœna and of the original notice of application for an injunction in chancery delivered to me for service.

——— ———,
U. S. Marshal.

I hereby appoint Charles H. Turner my true and lawful deputy to serve this writ.

(S'g'd) J. W. CHAPMAN,
U. S. Marshal.

53 This suit came into my hands for service on the 10 day of Dec., 1878, and I served the same on the within-named Geo. Hovey on the 14th day of Dec., 1878, by leaving with him a true copy of the same at his usual place of residence in Independence, Buchanan Co., Iowa.

J. W. CHAPMAN,
U. S. Marshal,
(S'g'd) By CHAS. H. TURNER,
Spe. Dep.

Service	2 00
Copy	50
Mil'g.	11 40
	13 90

(Endorsed.) No. 1350. Eq. Circuit court of U. S., district of Iowa. William D. Andrews *et al. vs.* George Hovey. Chancery subpœna. Returnable first Monday in January, A. D. 1879. Filed Dec. 26, 1878. E. R. Mason, clerk. Rickel, West & Eastman, complainants' solicitors, 32 Iowa avenue, Cedar Rapids, Iowa.

54 And on the 6 day of January, 1879, the complainants, by Rickel, West & Eastman, their solicitors, & file an amendment to their bill in said cause in the words and figures following, to wit:

55 In the United States Circuit Court, District of Iowa. In Equity.

W. D. ANDREWS, GEO. H. ANDREWS, NELSON W. GREEN, & NOAH J. PARSONS

vs.

GEORGE HOVEY.

To the honorable judges of the circuit court of the United States for the eighth judicial circuit, within and for the district of Iowa:

Comes now the complainants in the above-entitled cause and amends their bill of complaint as follows:

By inserting after the words "in the State of New York," in the second line thereof, the words "and being citizens of the said State of New York;"

56 By inserting after the words "State of Massachusetts," in the second line, the following words: "And being a citizen of said State of Massachusetts;"

Inserting after the word "Iowa," in the 3rd line of said bill, the following words: "And being a citizen of the said State of Iowa."

And — addition to the allegation that said defendant, George Hovey, is a resident of Buchanan county, Iowa, complainants allege that said defendant, George Hovey, is a citizen of the said State of Iowa.

And complainants further aver and charge that parties above named were citizens of the States as above stated at the time of the commencement of this action and the filing — the bill of complaint herein.

(Signed) W. D. ANDREWS & BRO.
NELSON W. GREEN.
NOAH J. PARSONS,
By NOAH J. PARSONS.

57 (S'g'd) RICKEL, WEST & EASTMAN,
Complainants' Solicitors.
(S'g'd) HENRY RICKEL, *Of Counsel.*

UNITED STATES OF AMERICA, }
District of Iowa, } *ss:*

On this 4th day of January, A. D. 1879, before me appeared Noah J. Parsons, to me personally known to be such person, and who, being by me duly sworn, did depose and say that he is one of complainants above named; that he has read the foregoing amendment to complainants' bill of complaint and knows the contents thereof, and that the same is true of his own knowledge.

(Signed) A. N. EASTMAN,
United States Commissioner in and for the District of Iowa.

58-71 (Endorsed:) In the United States circuit court. W. D. Andrews *et al. vs.* Geo. Hovey. Amendment to complainants' bill. Filed Jan. 6, 1879. E. R. Mason, clerk. Rickel, West & Eastman, compl't- solicitors, &c.

72 And on the 13th day of May, 1879, the defendant, by Lake & Harmon, his solicitors, filed his answer to complainant's bill in the words & figures following, to wit:

73 In the Circuit Court of the United States, District of Iowa. In Equity.

WILLIAM D. ANDREWS *et al.*
vs. } No. 1350.
GEORGE HOVEY.

The answer of George Hovey to the bill of complaint of William D. Andrews, George H. Andrews, Nelson W. Green, and Noah J. Parsons, complainants.

The defendant, now and at all times hereafter reserving to himself all benefit and advantage of exceptions which can or may be taken to the many errors, uncertainties, and imperfections in the said complainants' bill of complaint contained, for answer thereto or unto so much and such parts thereof as he is advised are material for him to answer *with* —:

74 He denies that said Green was the original or first inventor of any new or useful improvements in wells, whether as set forth in any letters patent or otherwise, but he avers that identically and in substance the same pretended improvement, as hereinafter more expressly stated, had been known and used by many persons other than said Green long before the date of his pretended invention, and was by them known and used and was on sale and was in public use more than two years before the time of his pretended application for letters patent.

And this defendant is not advised or informed, save by the said bill of complaint, and cannot set forth as to his belief or other-
75 wise, whether the said Green was ever a citizen of the United States or whether he ever made application for any letters patent whatever, or whether any letters patent were ever granted or issued to him, whether as stated in said bill of complaint or otherwise, or as to whether he ever surrendered such letters patent or ever made any application for or obtained new letters patent in the premises, or whether the same were ever granted or issued, or as to whether said Green ever executed any assignment of any interest or right in or to any letters patent to any person or persons, or as to whether any such assignment, if it ever was made, was ever recorded in the Patent Office, or as to whether the complainants ever,
76 by the means stated in their bill of complaint or otherwise, became or ever were the owners of any letters patent or invention, rights or privileges, in and for the county of Buchanan, Iowa, or elsewhere, or as to whether they have ever invested any sum of money in the premises or been to any trouble, or as — whether

said pretended invention is of any benefit or advantage, or as to whether any wells were ever constructed or made according to said invention, save as in this answer stated; they deny that the public have ever acknowledged or acquiesced in any right asserted by the complainants in the premises.

And this said defendant is not advised or informed, save by the
said bill of complaint, and cannot set forth as to his belief or
77 otherwise whether any such suits as those averred in the bill
of complaint were ever commenced in the circuit court of the
United States for the eastern district of New York or the district of Minnesota, or whether any of the alleged proceedings were ever had in those courts, or as to whether any such adjudication or decree as that alleged was ever given, rendered, or had therein.

And the said defendant, further answering, denies that he ever at any place, whether as alleged in the said bill of complaint or otherwise, in violation of any right of the complainants or in infringement of any letters patent, wrongfully or unlawfully or in defiance of the rights of any person constructed or used any wells
or threatens to construct or use any wells, or that he has ever
78 done or intends to do any act whatever in violation of any
right of the complainants, or that he has ever caused them
any loss or injury or deprived them of any gains or profits, or that any act which he has ever done or threatened has any effect to encourage or induce any person to infringe on said pretended patent or upon any rights of the said complainants, or that he has ever been notified of any infringement.

And he denies severally and specifically each and every averment contained in the said bill of complaint save as in this answer admitted, qualified, explained, or otherwise denied.

And the defendant, further answering, denies that the said Nelson
N. Green was the first or original inventor of the pretended
79 invention in said bill of complaint described or any or either
of them, or of any substantial, material, or meritorious component
thereof, but, on the contrary, he avers and says that the alleged invention and all the substantial, material, and meritorious components thereof were, long prior to any alleged invention thereof by said Green, described in certain letters patent and in certain applications for letters patent and in certain books, pamphlets, and publications hereinafter particularly described, and were known and used by divers persons in this country and elsewhere, to wit:

The application for letters patent of the United States filed in Patent Office of the United States on the 16th day of May, A. D.
1865, by S. R. & W. S. Hunter, of the town of Cortland, in
80 the State of New York.

The application of James Suggett, of the town of Cortland, in the State of New York, for letters patent of the United States filed in the office of the Commissioner of Patents on the 29th day of March, A. D. 1864.

The application for letters patent of the United States made and filed by Byron Mudge, of said Cortland, in the office of said Commissioner on the 24th day of October, A. D. 1865.

Letters patent of the United States granted and issued to James Suggett aforesaid and dated March 29, A. D. 1864.

Letters patent of the United States granted and issued to Byron Mudge, dated October 25th, 1865.

81 Letters patent of the United States granted and issued to S. R. and W. S. Hunter, of said Cortland, dated May 16th, 1865.

The application of John Chandler, of Coldwater, Michigan, for letters patent of the United States and such letters patent granted to him dated September 4, A. D. 1866.

The application of H. R. and M. T. Barnes, of Watkins, New York, for letters patent of the United States and such letters granted to them dated August 15, A. D. 1865.

Also that the pretended invention, process, device, and apparatus and each thereof substantially the same in construction and operation as that asserted in said bill of complaint to be included in, covered, and protected by said letters patent to said Green were made and were in public use for more than two years prior 82 to any application by said Green for said original letters patent and more than two years prior to the date of said pretended invention, at Naperville, in the State of Illinois, as was known by James J. Hunt and A. McS. S. Ridler, of that place, and by others, due notice of whose names and places of residence will be given to the complainants or their counsel.

Also to Albert L. Rollo, who resides at Vineland, in the State of New Jersey, who had knowledge of the same at Cortland, in the State of New York, and in the towns adjoining said Cortland; also James Suggett, Stephen R. Hunter, Richard Lambert, James C. Carmichal, M. M. Waters, Howard Baker, A. P. Smith, and Henry Baker, who reside in said Cortland, and who severally had the 83 same knowledge of the same at said Cortland and in the towns adjoining.

Also to H. W. Smith, who resides at Pontiac, Illinois, who knew of such use and actually made such use in Warren county, Ohio, in the year 1857.

Also to Duane A. Tinckelpaugh, who resides in Minneapolis, Minnesota, and knew of and saw such use in October or November, 1859, at Fairbury, in the State of Illinois, near a mill owned by one McDowell.

Also to J. Phillips, Stephen Barnes, R. B. Amesbury, H. M. Gillett, John Zimmerman, H. Remington, all residents of Fairbury, who have the same knowledge as Tinckelpaugh, and particular to said Amesbury, who saw such use- at said Fairbury, in 1859, upon the premises occupied as a store by the firm of Amesbury, Pogne 84 & Thomas.

Also at Piper City (then called Brenton), in the State of Illinois, in 1856, as was known to Michael Fitzmorris, now residing at Chatsworth, Illinois, and to John R. Lewis, —— Michenson, and —— Atwood, who reside at said Piper City, and to many others, whose names and places of residence will be furnished to the complainants or their counsel.

Also L. Meeker and John Grimes, of Farmington, Minnesota, who knew of its use at Saratoga, New York, in 1858 and 1859.

Also Chas. Seward, of Farmington, Minn., who knew of its use in Hillsboro, Illinois, in 1850 to 1857.

Also to George Parish and —— Richards, who reside at
85 Chatham, Iowa, and knew of its use in Victor, New York,
before 1855.

Also John H. Edwards, of Stillwater, Minn., who knew of its use in Manlius, Ill., in 1859 and 1860.

Also to C. C. Linville, who now resides at Decorah, Iowa, who knew of such use in the State of Kansas in 1860.

Also to A. J. Parker, who resides at Ithaca, in the State of New York, and to George Geddes and —— Spencer, of Syracuse, New York, and who had knowledge of the same at Ithaca, Syracuse, and Salina, in said State.

Also to J. P. Reeves and Wm. Dixon, of Minneapolis, Minn., — knew of its use in said Minneapolis in 1860.

Also to William Clark, now residing at Minneapolis, Minn., who knew of its use in Johnson county, Iowa, in 1858.

Also to J. M. Underwood, who resides at Minneapolis, Minn.,
86 and who knew of its use at Kennebec, Maine, in 1859.

Also to E. W. Purdy, who resides at Independence, Iowa, who put in these wells at Milwaukee, Wisconsin, in 1849 and 1850.

Also to O. T. Whitney, who resides in Minneapolis, Minnesota, who knew of — saw such use- on the State fair grounds at Elmira, New York, in the years 1859 and 1860.

Also to Mr. Donelly, who resides at said Minneapolis, who knew of and saw such use- at the place of Wm. R. Wadsworth at Constableville, Lewis county, New York, in or about the year 1860, and also upon the lot of Mr. Sidle at the same place and time.

Also to John W. Webster, who resides at said Minneapolis, who knew of and saw such use- in August, A. D. 1854, at the mouth of Calumet creek, near Chicago, Illinois.

87 Also to Frank Goodwin, who resides at said Minneapolis,
who knew of and saw such use- in 1856 or in 1857 in repeated
instances in the town of Harbor Creek, Erie county, Pennsylvania.

Also to J. O. Miline, who resides at said Minneapolis, who knew of and saw such use- in the summer or fall of 1856 at his & his father's place of residence in the town of Macedon, Wayne Co., N. Y.

Also J. M. Griffiths, who resides at said Minneapolis, who knew of and saw such use- at the place of residence or business of Nat. Shary at Montgomery City, Missouri, in 1860 or 1861.

That the knowledge of each of the aforesaid persons was of the pretended invention, process, device, and apparatus and of each thereof and of the actual use of the same at the times and places stated more than two years prior to the time when said Green made his first application for such patent.

This defendant states further that in the month of April
88 or May, 1861, there was put in at Independence, Iowa, a well
made by driving down into the earth an iron tube shod with
an iron or steel point, with perforations in the tube above the point,

without a screen over the same, and sections of tubing attached as driven down until it was projected some feet into the water, and to the top of this tube was attached an iron pump, and the same was used for pumping water through, and was known and publicly used at such place from April or May, 1861, until some time in July or August, 1861, and was known to and used by the following-named
persons, whose post-office address is Independence, Iowa,
89 to wit: Thomas Sherwood, Frank Trask, Perry Munson,
Thomas H. Tyson, S. P. McEwen, Dr. George Warne, S. S. Allen, S. M. Marquette, A. F. Williams, C. B. Kandy, George B. Warne, T. J. Marinus, D. S. Deering, George Hovey, J. J. Travis, J. M. King, W. Wallace, A. H. Fonda, M. B. Jones, J. A. Davis, E. W. Purdy.

And said well was also known to the following-named persons, whose post-office address is Jessup, Iowa: C. T. Kimball, John Ganier.

And to the following, whose post-office address is Quasqueton, Iowa: B. C. Hale.

And to the following, whose post-office address is Swanton, Iowa: Elias S. Hovey.

And to the following, whose post-office address is Waterloo,
90 Iowa: S. W. Fenstermaker.

And to the following, whose post-office address is Fairbank, Iowa: William Codling.

This defendant, further answering, states that said invention was known and used in all its parts as described in said complainants' bill of complaint and his letters patent long before the pretended invention claimed to have been made by Nelson W. Green, and was known to and used by the following-named persons now residing in Buchanan county, Iowa, in said *county*, in the spring of 1861: C. T. Kimball, Thomas Sherwood, Frank Trask, Perry Munson, Thomas H. Tyson, Samuel P. McEwen, Dr. George Warne, S. S. Allen, S. M.
Marquette, A. F. Williams, C. B. Kandy, George B. Warne,
91 B. C. Hale, T. J. Marinus, John Ganier, D. S. Deering, George
Hovey, J. J. Davis, J. M. King, W. Wallace.

And was also known to Elias S. Hovey, who now resides at Swanton, Iowa, and that such knowledge and use was open and notorious and known to the public at that time and place, and that such use was before the pretended invention by said Green.

And the defendant avers that the alleged invention and all the substantial, material, and meritorious components thereof were more than two years before said Green made any application for a patent and a long time before his alleged inventions described in certain printed books, pamphlets, and publications as follows, to wit:

92 In a report of Thomas Spencer, superintendent, and Henry
W. Allen, inspector, of the salt wells at Syracuse and Salina, in the State of New York, and dated January 8th, A. D. 1842, in which the material parts of said pretended invention are described.

In a report of said Spencer and Allen concerning said salt wells and the method of sinking wells at said places, dated January 9, 1841.

In a report made by Richard Wright and James M. Allen, of said Syracuse, concerning the salt wells of Salina and Syracuse, New York.

In a report of the superintendent of the salt wells in said Syracuse, dated January, 1853, on pages 10 and 11, in which the material parts of said claim and invention are described.

In a certain book or publication known as "McKenzie's
93 Five Thousand Receipts," published by James King, Jr., and
Brother, at Philadelphia, A. D. 1829, and being a republication from a London edition of the same work, on page 388, in which all the material parts of said pretended invention are described.

In a certain book known as and called "Un's Dictionary of Arts and Manufactures," published more than twenty years ago, but in what year defendant cannot now state, on pages 65, 66, and 67, in which all the material parts of said pretended invention are described.

In volume 35 of a certain work known as "Ree's Cyclopedia," published in Philadelphia about A. D. 1817, under the title of
"Spring Draining Pump;" also in volume 5 of said work,
94 under the title of "Borer in Ru-al Economy," in each of which
volumes all of the material parts of said pretended invention are described.

Also in a book published in A. D. 1859 or 1860 by authority of the State of New York, entitled "Transactions of the State Agricultural Society of the State of New York for the Year 1859," on page 280, where all the material parts of said pretended invention are described.

Also in a certain report of Thomas Spencer, of Syracuse, New York, contained in the annual report of the New York State Agricultural Society for the year 1843 and published A. D. 1843 or 1844, on pages 8 and 9, in which all the material parts of said pretended invention are described.

This defendant, further answering, states that said inven-
95 tion, after it was claimed to have been made in 1861 by the
said Nelson W. Green, at Cortland, in the State of New York, was by him made and put in use, under his order and direction, in the said county of Cortland, and was allowed to go into public use, with his knowledge and consent, and was allowed to remain in such use from October, 1861, until in March, 1866, when be made his first appearance for a patent, and that the said invention was used in public in said Cortland and was known to Byron Mudge, A. P. Smith, James Carmichal, James Suggett, W. S. Hunter, William O. Bonnard, M. M. Waters, Julius A. Graham, Henry Bates,
Henry Mead, Edward Ashdown, Horace Baker, Horato
96 Ballord, Ebinezer Mudge, Ira V. Hicks, James Freeman,
Henry Woodruff, George N. Copeland, and Cornelius Brown, all of whom knew of such use for more than two years from the time said invention is claimed to have been made and before the said Green made any application for a patent.

This defendant, further answering as to the well he has and uses, and the only well that this defendant ever possessed, owned, used, or in any manner controlled, states that his well was not made in the manner claimed by said complainants in their bill of complaint, nor in manner and form like the said wells claimed by said complainants in any particular.

This defendant says that he has no well except an open-
97 dug well at his house, in Independence, and an open-dug
well on his farm, in Perry township, Buchanan Co., Iowa,
with a hole drilled in the rock in the bottom.

That all the wells he owns are open wells.

This defendant says that he has made some wells since 1871, and that he makes all his wells by boring down to and into the water; then puts in a tube, with large holes in the bottom, without a screen; attaches a sand pump and pumps out a quantity of fine mud; then puts in a tube with wire screens over the holes and attaches to that a pump. This is his method of making wells. Defendant says that he never makes wells by driving a rod or instrument into the ground without removing the earth upwards as it is in boring.

98 And the defendant denies that the said pretended invention in said bill of complaint described or any material part thereof was not known or used or had not been on sale or in public use for more than two years prior to the date of said pretended letters patent or to the date of the application therefor and with the knowledge and consent of the said Green; but he avers that, if it shall be held that said Green was the first or original inventor of said invention or any substantial or material part thereof, *that* after his said invention and before he ever took any measures to obtain a patent and prior to the date of said patent, and for a date of more than five years before the date of his pretended application for a
patent, said invention as claimed in said bill of complaint
99 and in said pretended letters patent and the substantial and
material parts thereof were in common, public use, and were
on sale with the knowledge and consent of the said Nelson N. Green, and that he, with full knowledge of said public use and sale, abandoned the said pretended invention, if any he had, and dedicated the same to the use of the public.

And the defendant avers that any letters patent which may have been issued to said Green in the premises were obtained by fraud and deceit, and that all and singular the several allegations in the application, specifications, — claims of or pertaining to said original
and to the surrendered and reissued letters patent were wholly
100 false, fraudulent, and untrue, as the said Green has always
well known, and denies that the several owners in said original letters patent joined in the surrender of said letters patent or in the application for a reissue of the same; and likewise, on information and belief, denies that said original letters patent were ever surrendered to the said Commissioner of Patents, as claimed in said bill, for good and lawful cause, but, on the contrary, the defendant, on information and belief, alleges that said reissued patent on which this complaint is brought was obtained by fraud and for the fraudulent purpose of enabling the said N. W. Green, complainant, and the other owners of said letters patent to include in said reissued letters

patent more and other matters and things than those of which
101 he was or claimed to be the first or original inventor and more than he or the said complainants were entitled to include in his said original letters patent and things and inventions of which he, the said N. W. Green, was not, at the time of his said original patent or his said application therefor, the first and original inventor, and that said reissued letters patent, on which this suit is brought, does include, describe, and contain and claims to have patented therein inventions and things of which the said complainant, the said Nelson W. Green, was not the first and original inventor; and, further, that, upon the face of said letters patent, the invention therein patented appears to be different from the invention patented
101¼ and claimed in said original letters patent, and that the same are therefore void and of no effect.

And the defendant therefore says, on information and belief, that said reissued letters patent on which this suit is brought were obtained by the said Nelson W. Green by false and fraudulent representations and suggestions to the Commissioner of Patents, and that said patent is therefore void.

This defendant, further answering, says that the well as invented and patented by the said Nelson W. Green, and as described by him in his said letters patent and the specification thereto annexed and also to the reissue of the same, will not work and make a well in the soil as it is in Iowa.

101½ That in no part of the premises occupied by him, as this defendant is informed and believes, would such a well be of any use or benefit to this defendant.

This defendant says that by reason of the imperfections in the construction of said wells and the manner in which the said Green describes them they will not succeed as wells in the soil of Iowa, but are wholly and totally a failure by reason of the accumulation of fine particles of matter in the tube.

This defendant further avers, on information and belief, that some time in the years 1871 and 1872 Elias S. Hovey and Elijah A. Hovey did discover and invent a method or process by which wells could be made in the soil of Iowa.

102 That some time in 1872 the said Elias S. Hovey procured from the Commissioner of Patents, at the office of said Commissioner, at Washington, in the District of Columbia, letters patent bearing date on the 20th day of February, 1872, and numbered 123,903, and that said process is entirely independent from and different than the process pretended to have been invented by said Nelson W. Green, and is not any infringement on the rights or claims of the complainants herein, which letters patent or a duly certified copy thereof this defendant is ready to exhibit to the court and to present the same for inspection at such time or times as may by the honorable the judges of this court be required.

And this defendant further avers and states to this court that
103 by means of the removal of the earth upwards out of the well pit as described in said letters patent issued to the said Elias S. Hovey, No. 123,903, as stated in said letters patent and the speci-

fications accompanying the same, the said process invented by the said Hovey will and does make a good and useful well in the soil as it is in the State of Iowa and especially in the land occupied by this defendant, whereas a well made as stated and described in the process as claimed to have been invented by the said Nelson W. Green and as set out in his letters patent reissue No. 4372 and the specifications accompanying the same *a well* could not be successfully made in the soil of the premises occupied by this defendant.

104 This defendant says that he is the owner of the right to make wells by the process patented to Elias S. Hovey as set out in his patent No. 123,903 for the State of Iowa; that he makes all the wells he has ever made by that process; that he bores to water and uses the Hovey process for the purpose of cleaning out the well pit; that he has never made a well according to Green's patent, except for experiment.

And this defendant denies all and all manner of unlawful combinations and confederacy wherewith he is by the said bill charged, without this, that there is any other matter, cause, or thing in the said complainants' said bill of complaint contained material or necessary for this defendant to make answer unto and not 105 herein and hereby well and sufficiently answered, confessed, traversed, and avoided and denied is not true to the knowledge and belief of this defendant; all which matters and things this defendant is ready and willing to aver, maintain, and prove as this honorable court shall direct, and prays to be hence dismissed with his reasonable costs and charges in this behalf most wrongfully sustained.

(S'g'd) LAKE & HARMON,
Solicitors and of Counsel for Defendant.

DISTRICT OF IOWA, *ss:*

I, Geo. Hovey, the above-named defendant, having been duly sworn, deposes that what is contained in the foregoing answer, 106 so far as concerns my own act and deed, is true to my own knowledge, and that what relates to the act and deed of any other person or persons I believe to be true.

(Signed) GEO. HOVEY.

Subscribed and sworn to before me this 24 day of April, A. D. 1879, by Geo. Hovey.

[SEAL.] JED. LAKE,
Notary Public, Buchanan County, Iowa.

(Endorsed:) 1350. United States circuit court, district of Iowa. In equity. William D. Andrews *et al. vs.* Geo. Hovey. Filed May 13, 1879. E. R. Mason, clerk. Lake & Harmon, solicitors for defendant, Independence, Iowa.

107 And on the 26th day of May, 1879, the complainants, by their solicitors, filed in said cause their replication to defendant's answer in the words and figures following, to wit:

108 *Replication.*

In the Circuit Court of the U. S., District of Iowa.

W. D. ANDREWS AND BRO. *et al. vs.* GEORGE HOVEY, Defendant.

The replication of W. D. Andrews & Bro. *et al.*, complainants, to the answer of George Hovey, defendant.

These repliants, saving and reserving unto themselves — and at all times hereafter all and all manner of benefits and advantages of exceptions which may be had or taken to the manifold insufficiencies of the said answer, for replication thereunto say that they will
109 aver, maintain, and prove their said bill of complaint to be true, certain, and sufficient in law to be answered unto, and that the said answer of said defendant is uncertain, untrue, and incufficient to be replied unto by these repliants, without this, and any other matter or thing in said answer whatsoever contained material or effectual in the law to be replied unto and not herein and hereby well and sufficiently replied unto, confessed or avoided, traversed or denied, is true; all which matters and things these repliants are and will be ready to aver, maintain, and prove as this honorable court shall direct, and humbly pray as in and by their said bill they have already prayed.

(Signed) RICKEL, WEST & EASTMAN,
Complainants' Solicitors.

110–118 (Endorsed:) W. D. Andrews & Bro. *et al. vs.* George Hovey. Replication of complainants. Filed May 26, 1879. E. R. Mason, clerk. Rickel, West & Eastman, complainants' solicitors.

119 And on the 2 day of January, 1880, in the record of the proceedings in said court, is an entry in said cause in the words and figures following, to wit:

120–122 United States Circuit Court, District of Iowa. October Term, 1879. Friday, January 2, 1880.

WM. D. ANDREWS *et al.*
vs. } Eq. No. 1350.
GEORGE HOVEY.

DECEMBER 30, 1879.

Leave granted, by consent of counsel, to amend answer.

(Signed) J. M. LOVE, *Judge.*

123 And on the 1st day of March, 1880, the defendant, by his solicitors, filed in said court a motion for leave to file amendment to his answer in the words & figures following, to wit:

124 *Motion.*

UNITED STATES OF AMERICA:

In the Circuit Court in and for the District of Iowa. In Equity.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, *et al.*
vs.
GEORGE HOVEY.

Now comes the respondent in the above-entitled cause, George Hovey, and submits to the court the annexed amendment to his answer herein and asks leave of court to file the same in this cause.

The defendant states that the citations of the printed publications, as stated in this amendment, are made in the original answer, to wit:

125 The citation to Reese Cyclopedia is to a different edition, but is the same work, only the edition to which we have been able to get access was published in 1819 instead of 1817, as stated in the edition cited in the original answer. The reference made to Mackinzie's 5,000 Receipts in the amendment is one published in 1829, on page 500, and is the one to which we can get access, while this one, cited in the original answer, was published in 1829 by J. King, on page 388.

Wherefor- this defendant says that the amendment does not in any manner increase the proof necessary to be made by the complainant- and does not change the nature of the answer, and asks that it may be filed without costs or terms.

(Signed) LAKE & HARMON,
Solicitors for Def't.

126 The solicitors ask that they may file the same amendment to all the cases tried of this nature in which they appear for the defendants.

(Signed) LAKE & HARMON,
Solicitors for Numerous Def'ts.

DISTRICT OF IOWA:

The application for leave to file the foregoing amendment in the case specified above and cases of the same nature coming on for hearing this day at chambers, Lake & Harmon being present for the defendants and Rickel, West & Eastman for the complainants, and the complainants' counsel waiving all objections to said motion and not resisting the same, it is ordered that said motion be allowed and that leave be granted to file said amendment accordingly.

December, 30, 1879.

(S'g'd) J. M. LOVE.

127

Amendment to Answer.

UNITED STATES OF AMERICA:

In the Circuit Court in and for the District of Iowa. In Equity.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, *et al.*

vs.

—— ——.

Now comes —— ——, the defendant in the above-entitled cause, and, leave of court having been first obtained to make an amendment to his answer herein filed, in addition to the matters and facts heretofore in his answer in this cause filed, states:

That the invention patented by Nelson W. Green and claimed by
him to be his invention, as set forth in the bill of complain-
128 ants herein, was, long prior to the time of such claimed in-
vention, mentioned and described in certain printed publica-
tions and books as follows:

In Reese Cyclopedia, published in London, England, about the year 1819, in volume 5, under the head or title of "Borer in Ru-al Economy;" and in volume 33, under the head or title of "Spring Draining Pump," and in volume 38, under the head of "Well in Ru-al Economy."

Also as shown in plates, volume 1, plate 37, of said Reese Cyclopedia, under the head of "Agriculture." Said work known as Reese Cyclopedia is not paged, but the subject are arranged in alphabet-
ical order, and the above subjects are described under the several
heads and plates as stated.

129 Also in a certain book known as Mackenzie's 5,000 Re-
ceipts, published in Philadelphia about the year 1829 by one
J. J. Woodward, on page 500, under the head and title of "To Raise Water in All Situations."

Also in a certain book known as Livingston's South Africa, being an account of the missionary travels and researches in South Africa by David Livingston, published by Harper Brothers in 1858, 1859, 1860, on page 59 of said book.

Also in certain letters patent of the United States issued to Levi Disbro Nov. 1st, 1830.

Also that said claimed invention was known in all its various parts, and the principles involved in said invention were used by
and known to the following persons residing at Preble, in the
130 county of Courtland and State of New York, to wit: William
E. Tallman, now deceased; Moses C. Tallman, Mrs. Moses C.
Tallman, Abram Vandenburg, Theodore Klock, Thomas Getman, John Wilbur, Edwin Wilbur, Charles White, George Taylor, Calvin Sheppard, John D. F. Woolston, John Hilligus, and Ezra Hilligus, who had knowledge of the same at Preble aforesaid.

Also Henry C. Tallman, residing at Tully, Onondaga county, New York, who had knowledge of the same at Preble.

Also to Timothy H. Buxton, Chancey Buxton, Hiram Adams, Alonso Burr, Jabez B. Warren, and Spencer Cronkite, who resides at Warsaw, New York, and who knew of such use at Warsaw aforesaid.

131 Also to B. C. Hales, who resides at Quasqueton, Iowa, and to Elias S. Hovey, who resides at Swanton, Iowa, and to S. W. Fenstermaker, J. E. Trexler, and Martin Rust, who reside at Waterloo, Iowa, and to William Codling, who resides at Fairbank, Iowa, and to M. B. Trins, John A. Davis, E. W. Purdy Almon I. Francis, Oliver Marquett, Walton Hill, H. A. King, — W. H. H. Morse, who reside at Independence, Iowa, and knew of such use at Independence, Iowa, aforesaid.

This defendant further state- that after the time that the said Nelson W. Green claims to have invented said well or process the same was abandoned by the said Green to the public and was used by the public for more than two years before a patent was applied for.

132 Wherefore defendant asks that the foregoing may be made a part of his answer in this case in addition to the matters and facts as alleged in the original answer filed.

—— ——,

Solicitors for Defendant.

UNITED STATES OF AMERICA, *District of Iowa:*

—, —— ——, being duly sworn, deposes and says that I am the defendant in the above-entitled cause; that the matters as set forth in this amendment to my answer are true, so far as my own knowledge is concerned, and those stated on belief I believe to be true.

—— ——.

Subscribed in my presence and sworn to before me by —— —— this — day of ——, 1880.

133 Witness my hand and seal.

—— ——,

Notary Public.

WILLIAM D. ANDREWS *et al.*
vs.
GEORGE HOVEY and Other Causes.

M-r-. Rickel, West & Eastman, of Cedar Rapids, Iowa, *and* solicitors for complainants, do hereby consent that the amendment to the answer *to* which the within is a copy may be used by defendants in lieu of the one that Judge J. M. Love gave order to be filed on the 30th day of December, 1879, and that this may be used in all the cases, as the other was ordered to be used.

Jan. 22, 1880.

(Signed) RICKEL, WEST & EASTMAN,
Solicitors for Complainants.

134 (Endorsed:) Wm. D. Andrews, Geo. H. Andrews, *et al. vs.* George Hovey. Amendment to answer and order of J. M. Love, dist. judge, allowing same, filed in this cause and in all other causes. Consent of Rickel, W. & E. to file this in lieu of one ordered. Lake & Harmon, solicitors for defendants. Filed Mar. 1, 1880. E. R. Mason, clerk.

135 And on the 1st day of March, 1880, the defendant, by his solicitors, filed in said cause an amendment to his answer in the words and figures following, to wit:

136 *Amendment to Answer.*

UNITED STATES OF AMERICA:

In the Circuit Court in and for the District of Iowa. In Equity.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, *et al.*
vs.
GEORGE HOVEY.

Now comes George Hovey, the defendant in the above-entitled cause, and, leave of court having been first obtained to make an amendment to his answer herein filed, in addition to the matters and facts heretofore in his answer in this cause filed, states—

That the invention patented by Nelson W. Green and claimed by him to be his invention, as set forth in the bill of *complainants* herein, was, long prior to the time of such claimed invention, mentioned and described in certain printed publications and books as follows: 137

In Reese Cyclopedia, published in London, England, about the year 1819.

In volume 5, under the head or title of "Borer in Rural Economy."

And in volume 33, under the head or title of "Spring Draining Pump," and in volume 38, under the head of "Well in Rural Economy."

Also as shown in plates, volume 1, plate 37, of said Reese Cyclopedia, under the head of "Agriculture."

Said work known as Reese Cyclopedia is not paged, but the subjects are arranged in alphabetical order, and the above subjects are described under the several heads and plates as stated.

138 Also in a certain book known as "Mackenzie's 5,000 Receipts," published in Philadelphia about the year 1829, by one J. J. Woodward, on page 500, under the head and title of "To Raise Water in all Situations."

Also in a certain book known as "Livingston's South Africa," being an account of the missionary travels and researches in South Africa by David Livingston, published by Harper Brothers, in 1858, 1859, 1860, on page 59 of said book.

Also in certain letters patent of the United States issued to Levi Disbro Nov. 1st, 1830.

Also that said claimed invention was known in all its various parts, and the principles involved in said invention were used by and known to the following persons residing at Preble, in the country of Cortland and State of New York, to wit: William E. Tallman, now deceased; Moses C. Tallman, Mrs. Moses C. Tallman, Abram Vandenburg, Theodore Klock, Thomas Getman, John Wilbur, Edwin Wilbur, Charles White, George Taylor, Calvin Shepard, John D. F. Woolston, John Hilligus, and Ezra Hilligus, who had knowledge of the same at Preble aforesaid. 139

Also Henry C. Tallman, residing at Tully, in Onondaga county, New York, who had knowledge of the same at Preble.

Also to Timothy H. Buxton, Chancey Buxton, Hiram Adams, Alonson Burr, Jabez B. Warren, and Spencer Cronkite, who reside at Warsaw, New York, and who knew of such use at Warsaw aforesaid.

Also to B. C. Hale, who resides at Quasqueton, Iowa, and to Elias S. Harvey, who resides at Swanton, Iowa, and to S. W. Fenstermaker, J. E. Trexler, and Martin Rust, who reside at Water-
140 loo, Iowa, and to William Codling, who resides at Fairbank,
Iowa, and to M. B. Tims, John A. Davis, E. W. Purday, Almon I. Francis, Oliver Marquett, Walton Hill, H. A. King, W. H. H. Morse, who reside at Independence, Iowa, and knew of such use at Independence, Iowa, aforesaid.

This defendant further states that after the time that the said Nelson W. Green claims to have invented said well or process the same was abandoned by the said Green to the public, and was used by the public for more than two years before a patent was applied for; wherefore defendant asks that the foregoing may be made a part of
his answers in this case in addition to the matters and facts
141 as alleged in the original answer filed.

(Signed) LAKE & HARMON,
Solicitors for Defendant.

UNITED STATES OF AMERICA, *District of Iowa:*

I, George Hovey, being duly sworn, deposes and says that I am the defendant in the above-entitled cause; that the matters as set forth in this amendment to my answers are true, so far as my own knowledge is concerned, and those stated on belief I believe to be true.

Subscribed in my presence and sworn to before me by George Hovey this 25 day of February, 1880.

Witness my hand and seal.

[SEAL.] (Signed) JED. LAKE,
Notary Public in and for Buchanan County, Iowa.

142 (Endorsed:) William D. Andrews, Geo. H. Andrews, *et al. vs.*
Geo. Hovey. Amendment to Answer. Filed Mar. 1, 1880.
E. R. Mason, clerk. Lake & Harmon for def'ts.

143 And on the 14th day of June, 1880, the defendant, by Lake & Harmon, his solicitors, filed in said cause a list of wells made by defendant in the words and figures following to wit:

144 *Notice of Provisions in Stipulation Dec. 13th,* 1879.

UNITED STATES OF AMERICA:

In Circuit Court for the District of Iowa.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, *et al.*
vs.
GEORGE HOVEY.

In accordance with the provisions in the stipulation entered into by and between the complainants and defendant herein, by Rickel, West and Eastman, solicitors for complainants, and Lake and Harmon, solicitors for defendant, on the 13th day of December, 1879, at the city of New York, and in pursuance of the conditions in said stipulation, notice is hereby given that the defendants 145 hereinafter named, against whom suits have been brought for infringing letters patent reissue No. 4372, dated May 9th, 1871, issued to Nelson W. Green, by the above-named complainants in the above-named court, admit that they each have a well made in the same manner, and the method of construction was the same as that used by the above-named defendant, George Hovey, since 1871, lease No. 1260:

W. Butterfield, No. 1267.
H. Griswold, No. 1270.
William Hayes, No. 1275.
G. W. Rice, No. 1277.
E. Stratton, No. 1345.
J. Couch, No. 1355.
G. M. Miller, No. 1356.
C. Marton, No. 1417.
J. Burke, No. 1420.
M. Emisminger, No. 1422.
J. Hollett, No. 1424.
146 J. Klotzbach, No. 1425.
W. H. H. Morse, No. 1428.
W. B. Phelps, No. 1433.
E. S. Wilcox, No. 1351.
E. K. Jenks, —.

It is further admitted by the defendants whose names are hereinafter written that they each have a well made in the same manner and by the same process of construction as used by the defendant, George Hovey, but that their wells were made and used and were in successful operation before the date of said reissued letters patent No. 4372, issued to Nelson W. Green and dated the 9th day of May, 1871, and for that reason they are not liable to pay any royalty or any costs or damages in the suits pending against them, to wit:

147 No. 1264, Eli Cutshaw.
No. 1269, A. Hayeman.

No. 1344, S. L. Adams.
No. 1347, J. Durkee.
No. 1354, John Miller.
No. 1421, J. Hasbrook.
No. 1423, J. D. Keele.
No. 1468, Samuel Smith.
No. 1357, Pat Ney.

The following-named defendants state that the wells they have are open-dug wells:

No. 1261, E. Baggot; 1272, J. Kesher; 1274, H. B. Philips; 1276, W. E. Snow; 1279, Mont. Smith; 1349, Pat. Farrell; 1351, E. K. Jinks; 1352, Dolph Jinks; 1419, William Davis; 1427, R. R. Plane; 1431, A. H. Trask; 1432, B. Glager; 1504, O. Harrington; 1520, Bradford Lewis; 1466, J. Hockings; 1298, A. B. Darvell.

148 The following-named defendants say that their wells are made by boring down and into the water with a large augur and removing the earth upwards out of the hole and inserting the tubing, from six to sixteen inches in diameter, which tubing forms the lining of the well, and inside of which is placed the pumps, and therefore is different in its construction from any of the wells named by the defendants whose cases have been selected for trial by the complainants herein, to wit:

No. 1346, W. O. Curtis.
No. 1348, W. Daly.
No. 1351, E. K. Jinks, 2 wells.
No. 1353, Adam Kiefer.
No. 1359, W. Richmond.
No. 1362, C. Weitman.
No. 1546, David Zimmerman.
No. 1297, J. Bills.
— 1302, Nathan Hayes.
No. 1307, J. F. Spuir.
No. 1312, George H. Webb.
No. 1313, James Wood.
149 No. 1474, Merritt and Mills.
No. 1300, Edward Forrester.
No. 1273, Benjamin Miller.

The following-named persons have places that they bought with the wells on them, and don't know when or how they were constructed:

No. 1266, C. C. Cadwell.
— 1418, J. Cling.

Of which facts the complainants and their solicitors will take due notice, and the original of this will be filed with the clerk of the United States circuit court at Des Moines, Iowa, to be attached to the stipulation to which it refers.

(Signed) LAKE & HARMON,
Solicitors for Def'ts.

Due, legal, and timely service of this notice accepted by us, and copy of same received at Cedar Rapids, Iowa, this 3d day of Feb-

150 ruary, A. D. 1880, but we refuse to be bound by the foregoing stipulation or notice in any manner, & claim that it is not in accordance with the agreement of Dec. 13th, 1879, made in New York city.

(Signed) RICKEL, WEST & EASTMAN,
Solicitors for Complainants.

We further give notice to solicitors for defendants that we are ready and willing to enter into stipulation contemplated by stipulation made in New York city Dec. 13th, 1879, & that if we are to proceed with the 5 cases selected for hearing by us we shall insist on all other cases abiding the result of such cases, & that the same decree be entered in all other cases as is rendered in said causes so selected for hearing, except in those cases where
151 def'ts may show that their wells are open or dug wells.

(Signed) RICKEL, WEST & EASTMAN,
Solicitors for Complainants.

This was not returned to us until Feb'y 25th, 1880, at 3.30 p. m.
(Signed) LAKE & HARMON.

(End.:) U. S. cir. court. W. D. and G. H. Andrews *et al. vs.* George Hovey. Lake & Harmon, sol'rs for def't.

(End.:) William D. Andrews, Geo. H. Andrews, *et al. vs.* Geo. Hovey. List of parties whose wells are made by Hovey; those made before 1871; those who are dry; those who have them made with large augur and lined. Filed June 14, 1880. E. R. Mason, clerk.

152 And on the 14th day of June, 1880, the defendant, by his solicitors, filed in said cause a notice as to proof of prior use in the words and figures following, to wit:

153 UNITED STATES OF AMERICA:

In Circuit Court for the District of Iowa. In Equity.

WILLIAM D. ANDREWS, GEO. H. ANDREWS, *et al.*, Comp'ts,
vs.
GEORGE HOVEY, Def't.

To the above-named complainants, and Rickel, West, and Eastman, their solicitors:

You are hereby notified that in taking the testimony on the part of the defense in the above-entitled — the said defendant will prove the prior use of the pretended invention of Nelson W. Green by the following-named persons in addition to those named in the answer and the amendment to the answer: M. B. Tims, John A.
154 Davis, Almon I. Francis, O. Marquette, W. Hill, E. W. Purdy, H. A. King, and W. H. H. Morse, who reside at Independence, Iowa, and who knew of its use at Independence, Iowa; also J. E. Trexler and Martin Rust, who reside at Waterloo, Iowa, and who knew of said well at Independence, Iowa.

The depositions of said witnesses will be taken in due time, to be used in the trial of said cause and all other causes tried in accordance with stipulations heretofore made.

(Signed) LAKE & HARMON,
Solicitors for Def't.

Due, legal, and timely service of this notice accepted at Cedar Rapids, Iowa, this 2d day of January, 1880, by us.

(Signed) RICKEL, WEST & EASTMAN,
Solicitors for Complainants.

(End:) Wm. D. Andrews *et al. vs.* George Hovey. Notice as to proof of prior use. Filed June 14, 1880. E. R. Mason, clerk.

155 And on the 14th day of June, 1880, the defendant, by his solicitors, filed in said cause a notice as to using testimony of Edward Ross *et al.* on hearing in the words & figures following, to wit:

156 UNITED STATES OF AMERICA, *District of Iowa:*

In Circuit Court. In Equity.

WILLIAM D. ANDREWS, GEO. H. ANDREWS, *et al.*, Complainants,
vs.
GEORGE HOVEY, Def't.

To the above-named complainants and Rickel, West and Eastman, their solicitors:

You are hereby notified that at the hearing of this cause and the four other causes selected by you to be tried in the actions brought by you against this and other defendants for infringement of letters patent reissue No. 4372, dated 9th May, 1871, the defendants will ask the court to admit the testimony of Edward Ross and
157–671½ John H. Campbell for the purpose of proving prior use in these cases.

(Signed) LAKE & HARMON,
Solicitors for Def't.

We truly accept due servace of this notice and the rec't of a copy of the same at Independence, Iowa, this 2d day of April, 1880.

(Signed) RICKEL, WEST & EASTMAN.
Solicitors for Complainants.

(Endorsed:) Wm. D. Andrews *et al. vs.* George Hovey. Notice that def't will use testimony of E. Ross & J. H. Campbell at hearing. Filed Jun- 14, 1880. E. R. Mason, clerk.

672 In the Circuit Court of the United States for the Southern District of Iowa, Central Division. In Equity.

WM. D. ANDREWS *et al.*, Complainants,
vs.
GEORGE HOVEY, Respondent.

This suit, with a large number of others against other defendants now pending in this court, is based upon reissued letters patent No. 4372, granted to Nelson W. Green, one of the complainants, under date of May 9, 1871, the original patent, No. 73425, bearing date January 14, 1868, and having been issued for an "improved method of constructing artesian wells."

The bill alleges an infringement on the part of the defendant, and prays for an injunction, accounting, damages, and further relief.

The answer, in substance, denies that Green was the original inventor of the alleged improvement, avers that the alleged invention was known and in public use for more than two years prior to the date of the original letters patent; that Green, if he was an original inventor, abandoned his inventions and knowingly permitted its public use for more than two years before applying for a patent; that the reissue is a departure from the original letters patent and embraces different and more extensive claims than are covered by the original, and also denies that defendant has infringed upon the rights and invention held and owned by the complainants.

As already stated, there are pending in this court a large number of causes brought by the complainants for alleged infringements upon their rights, and in the district of Minnesota similar suits are pending, in which the issues are substantially the same.

For convenience's sake it was agreed that these causes should be heard at one and the same time before the judges of the district of Minnesota and the districts of Iowa, and accordingly at the October term, 1882, of this court such hearing was had and the questions at issue were very fully and ably presented, both in print and by oral argument, before the court. At the time there was pending before
the Supreme Court at Washington the case of Wahl *vs.* Hine,
673 on appeal from the district of Indiana, in which cause this
same patent was involved, and it was hoped the decision of
that case would give us a final and authoritative decision upon the more important questions discussed in this court.

When the judgment in Wahl *vs.* Hine was announced, however, it appeared that the judges were equally divided in opinion therein, eight only of the members of that court having sat in the case, and hence no opinion upon the merits was reached or announced in that cause.

It became, therefore, the duty of this court to consider the questions submitted unaided by the decision in Wahl *vs.* Hine, and we have endeavored to give them the consideration which their importance demands. Upon many of the questions involved a very large amount of evidence has been adduced, and the questions of law and fact have been ably argued and presented by the counsel in the cause.

Stoneman, Rickel & Eastman, Hubbard, Clark & Dawley, A. R. West, Rogers & Rogers, for complainants; Lake & Harman, Wilson & Gale, for defendants.

SHIRAS, *District Judge:*

Assuming for the present that Nelson W. Green is entitled to the credit of being the inventor of what is commonly known as the "driven well," we shall first consider the defense of abandonment—that is to say, the averment that he allowed the use of his invention to become part of the property of the public without asserting his right to a patent for the protection of his rights as an inventor.

In the case of Shaw *vs.* Cooper, 7 Peters, 292, it was held that "vigilance is necessary to entitle an individual to the privileges secured under the patent law." It is not enough that he should show his right by invention, but he must secure it in the mode required by law, and if the invention, through fraudulent means, should be made known to the public he should assert his right immediately and take the necessary steps to legalize it.

The patent law was designed for the public benefit as well as for the benefit of inventors. * * * No matter by what means an invention may be communicated to the public before a patent is obtained, any acquiescence in the public use by an inventor will be an abandonment of his right. If the right were asserted by him who fraudulently obtained it, perhaps no lapse of time could give it validity.

But the public stand in an entirely different relation to the inventor.

The invention passes into the possession of innocent persons who have no knowledge of the fraud, and, at a considerable expense, perhaps, they appropriate it to their own use.

A strict construction of the act as it regards the public use of an invention before it is patented is not only required by its letter and
spirit, but also by sound policy. * * * The doctrine of
674 presumed acquiescence, where the public use is known or
might be known to the inventor, is the only safe rule which can be adopted on this subject. * * * Whatever may be the intention of the inventor, if he suffers the invention to go into public use through any means whatever without an immediate assertion of his right, he is not entitled to a patent, nor will a patent obtained under such circumstances protect his right."

In the case of the Consolidated Fruit Jar Co. *vs.* Wright, 94 U. S., 96, it is said that the "inventor must comply with the conditions prescribed by law. If he fails to do this he acquires no title and his invention or discovery, no matter what it may be, is lost to him and is henceforward no more his than if he had never been in anywise connected with it. It is made thereupon, as it were by accretion, irrevocably a part of the domain which belongs to the community at large."

From the evidence in this cause it appears that in the summer of 1861 Nelson W. Green was a resident of Cortland, New York;

that he was engaged in drilling and organizing volunteers for the army, and especially in connection with the 76th regiment of New York infantry, of which regiment he was appointed colonel; that whilst thus employed his attention was called to the subject of procuring pure water for the use of his men, and that he set about to devise a means by which water could be readily procured from beneath the surface of the earth, thus avoiding danger from poisoned wells and springs, and also from the risk of being cut off from access to the ordinary sources of supply when in the presence of the enemy.

The patentee himself testifies that in the summer of 1861 he had devised in his own mind a method of accomplishing this result, which he explained first to his drill squad and then to the officers of his regiment, and which consisted in driving a rod sharpened at the end into the ground and into the water-bearing stratum, then withdrawing the same and inserting a tube through which the water could be drawn by an ordinary style of pump. As a test of the method proposed, under the direction of Col. Green, an experiment of driving a rod down to the water was made near his house, and this experiment was followed by driving a well at the fair grounds at Cortland at the expense and for the use of one Graham, who had the contract for furnishing food and other supplies at the camp on the fair grounds, This well was driven between the 1st and 15th of October, 1861, and was used generally by the men in camp as well as by Graham and his employés.

We further find in the testimony of Colonel Green the following:

Question 60. "After this experiment at the house and the making and use of the well at the fair grounds, what was your opinion as to the practicability of making wells by that process, either for general use or for the purposes of the army, as you had originally intended?"

Answer. "The result of the two experiments referred to had upon my mind the effect to convince me of the entire practicability and feasibility of the process for all the purposes named in the question."

675 Question 61. "Did you take any steps, give any orders or directions for the procurement of material to be taken with your regiment into the field for the purpose of making wells to supply that regiment with water wherever it might be situated?"

Answer. "I gave Lieutenant Mudge orders to procure such material for the purposes named, and gave Adjutant Robinson orders to furnish him with transportation for the same, and when at Albany made arrangements with the quartermaster general for the transportation of that material with the regiment when it went to the front."

By the testimony of the patentee himself it is shown that the invention claimed by him was perfected in conception in the summer of 1861, was demonstrated to be a success by practical use in October, 1861; that the patentee caused the necessary apparatus to be procured to be taken with the regiment for its use when it moved to the seat of war, and arranged with the authorities at Albany for the transportation needed therefor.

The testimony of the patentee shows beyond the possibility of a doubt that his object and purpose in 1861 was to provide a means of supplying the men under his care with pure water, and protecting them from the danger to be apprehended from the polluted or poisoned springs and wells, or from being cut off by the enemy from access to the usual sources of supply, and to this end he caused the apparatus to be used in driving wells to be procured and transportation therefor to be provided.

The sinking of the well at the fair grounds at Cortland and the providing the means for driving these wells whenever and wherever they might be needed by the regiment establishes beyond question the intent on part of Col. Green that this invention should be publicly and commonly used by his regiment at any and all times and places. His own testimony shows that he explained his invention and the means of carrying it into effect, first to his drill squad and then to the officers of his regiment, and subsequently consented to the sinking and public use of the well at the camp ground, and yet he never cautioned any one to keep the method a secret, nor is it shown that in 1861 he ever mentioned to any one the idea of obtaining a patent or that he purposed doing so or that he took any action looking to that end. All that he did tended to spread the knowledge of the mode of making these wells and of the success attending their use, and nothing whatever is shown indicating an intent to restrict the right to make and use the same to himself as a patentee.

It is an admitted fact that Col. Green was a man of intelligence and education, and he must have known what the law required of him in case he desired to secure his rights as an inventor under the provisions of the patent laws. He knew, then, that to secure his rights, if he desired to procure a patent, he must apply therefor before permitting his invention to pass into general or public use. His own testimony conclusively shows that he gave publicity to his invention and consented to, nay, aided, in making the use
676 thereof common and public. There is nothing in the evidence showing that he purposed or intended to make further or different experiments with a view to perfecting his discovery.

He himself expressly testified that the experiment at his house and the driving and use of this well at the camp ground convinced him of the feasibility of the process in making wells either for general or army use, or, as counsel for complainants, in their brief upon the facts, pages 17 and 18, state it—

"The two experiments fully and satisfactorily demonstrated the general practicability of the process where no rock intervenes."

The evidence shows conclusively, therefore, that the invention was thought out and was put into satisfactory use, the use being an open and public one, whilst Col. Green's regiment was in camp at Cortland, and the necessary machinery and tools, with transportation therefor, were provided for continuing the construction and the open and public use of other wells, and yet no step was taken by Col. Green for the procurement of a patent, nor was there at that time any act done or statement made indicating a purpose or intent upon his part to apply for a patent in the future.

It is urged, however, that the reason why an application for a patent was not made at that time was because Col. Green had become involved in serious difficulties on account of the shooting of Captain McNett, one of the officers of his regiment, on the 6th of December, 1861.

If it appeared from the evidence that Col. Green had in the fall of 1861 taken the initiatory steps for the procurement of a patent or had even unmistakably announced his intention so to do and it appeared that the accomplishment of such purpose was interrupted by the complications and difficulties arising out of the shooting of Captain McNett, it might then be claimed that these difficulties formed an excuse for the long delay in applying for a patent on part of Col. Green.

But it will be borne in mind that the idea of this mode of constructing a well was thought out in the summer of 1861, and the well at the camp ground was sunk before the 15th of October, and the shooting of McNett was not until December 6.

It is also shown by Col. Green himself that he gave the proper orders for the construction of the apparatus necessary to be used in sinking wells and that when in Albany he arranged for the transportation thereof with the regiment when it moved to the seat of war. If he thus had time and opportunity enough to provide the means necessary to furnish these wells for the common and public use of his regiment, can it be fairly claimed that he did not have time and opportunity to at least announce his purpose of procuring a patent, if such was then his intent?

It would seem that the utmost that can be said of the effect of the difficulties resulting to Col. Green from the shooting of Capt. McNutt is that thereafter his attention was so fully occupied thereby that he gave no further thought to the subject of driven wells at that
677 time, and hence did not in his own mind reach the conclusion that he would apply for a patent until several years had elapsed and these difficulties had begun to pass away and until it was brought to his attention that through the use of this mode of driving wells other parties had reaped large pecuniary benefits.

But during this delay, extending to May, 1866, a period of over four years, the public had acquired rights through the open and uninterrupted use of the discovery.

What the causes were that led to this long silence on the part of Col. Green are not so material as the fact itself that he made public the knowledge and use of his invention and then for over four years remained wholly silent and took no action for the procurement of a patent.

Can there be any question that Col. Green did permit his invention to go into public use without an immediate assertion of his rights?

In Egbert *vs.* Lippman 104, U. S., 333, it was held that "to constitute the public use of an invention it is not necessary that more than one of the patented articles should be publicly used," it being also held in the same case that "if an inventor, having made his device, gives or sells it to another to be used by the donee or vendee without limitation or restriction or injunction of secrecy, and it is so used, such use is public, even though the use and knowledge of the use may be confined to one person."

It is not questioned that the well at the camp ground was made with the knowledge and consent of Col. Green. It was for a public use, being constructed at the expense of the sutler, Graham, for the purpose of supplying water for use in the cook-rooms, as well as for general use by all connected with the regiment.

There was no effort made to keep the mode of its construction secret, but rather the contrary.

When the regiment left Cortland, New York, Col. Green exercised no control over this well, nor did he cause it to be taken up or otherwise kept from public use or knowledge. If he was the inventor of that description of well he certainly gave to Graham the full right to construct and use the well and to permit its use by others without any limitation whatever or any injunction of secrecy, thus bringing the case within the rule laid down in Egbert *vs.* Lippman, even if there were no further facts showing acquiescence in the public use of the invention; but these facts are not wanting, for it is proven by Col. Green himself that he caused the necessary tools and pipes to be procured for the use of the regiment when it went to the front, showing clearly that he proposed and intended to permit any number of wells to be sunk and used that might be needed by the regiment, thus showing that he contemplated a continuous public use of the invention without restriction or limitation.

Again, the evidence shows that a large number of driven wells were made and used in and about Cortland and neighboring places during the years 1862, 1863, 1864, and 1865. It is now claimed that Col. Green had not actual knowledge of the existence of
678 these wells, but was he not bound to know that the natural result of what he himself had done and had caused to be done in the way of giving publicity to the success which attended this mode of making wells would be to spread their use by the public, unless he promptly prevented such result by procuring a patent, and can he now be heard to say that he did not know nor have reason to know that the use of these wells was becoming common in his own neighborhood, when the facts show that such was the natural result of his own acts?

But we are not left to mere inference upon the question, as there is testimony showing satisfactorily that he had knowledge of the existence of a portion, at least, of these wells, and despite his own testimony, wherein he endeavors to destroy the weight of his testimony either by direct denial or by claiming that he did not, in fact, recognize certain wells which came under his notice to be driven wells, yet we think the preponderance of evidence is against him on this proposition, and that it must be held that he knew that such wells were being made and used.

We find, therefore, as conclusions of fact:

1. That in 1861 Col. Green's purpose in devising his method of

driving wells was to furnish a ready means whereby the men of his regiment could procure a supply of pure water, and that he did not at that time contemplate procuring a patent therefor, and that he put his method of driving wells into public use in 1861 for the benefit of his regiment, and thereby dedicated or abandoned his invention to the public.

2. That his invention was in open and public use, with his knowledge and acquiescence, for more than four years before he applied for a patent thereon.

From these conclusions of fact it necessarily follows that the letters patent originally granted and the reissued letters based thereon must be held invalid and void.

II. It is also urged on behalf of defendants that the reissued patent enlarges the scope of the original patent, is broader in its terms, including improvements and principles not contained in the original specifications, and is therefore void.

This defense demands an examination and determination of what Col. Green's original invention consisted and of what is embraced within and covered by the reissued patent.

We will consider the latter proposition before proceeding to the former:

Wm. D. Andrews, one of the complainants, in giving his testimony, is asked whether he has read and understands the reissued patent, and, if so, to describe it, which he does in the following language:

"The invention is for a method of procuring water from the earth by means of a tube inserted into the earth down to and into a water-bearing stratum, and attaching to such tube, in cases where the water does not flow naturally, a pump by an air-tight connection, and by the operation of the pump producing a vacuum within the tube which forms the body of the well and its lining, 679 thereby causing the water in the surrounding earth, under the pressure of the atmosphere, to rush into the well formed by the tube, and furnishing a practically inexhaustible supply of water by the means as stated and described."

In the opinion of Judge Benedict, in the Carman case, cited at length by complainants, it is stated that "the novelty consists in making the well pit to consist of the tube of a pump connected tightly with the earth; this is accomplished by driving into the earth the tube to be used as a tube of a pump and at the same time as the pit of the well.

"This manner of inserting the tube renders it possible, by means of a pump attached to the tube, to create a vacuum in the pit of the well, and at the same time in the water-bearing stratum of the earth."

In the printed argument of counsel for complainants it is said that "the drive well invented by Col. Green left no open space between the lining and the suction pipe, and is based upon the principle that if a vacuum is formed in the earth at the ordinary depths by the action of the suction pump the atmospheric pressure communicated through the earth to the water will cause it to respond to the vacuum produced within the well, whose lining is itself the suction pipe of the well and perfectly air tight, the earth serving as a filter."

It is not necessary to extend these quotations to show that the principle which it is claimed constitutes the discovery or invention of Col. Green, as described in the reissued patent, is that the production of a vacuum in the earth by means of an air-tight tube driven into the earth, to which is attached a suction pump, will greatly increase the supply of water.

To-produce this vacuum it is necessary that the tube forming the lining of the well should be in such close contact with the surrounding earth as to be air-tight, and it is claimed that driving the tube into the ground, whether with or without originally perforating the earth with a rod, constitutes a mode of constructing a well which practically results in producing a well whose lining, to wit, the tube, is in air-tight connection with the earth. In other words, in order to successfully apply the principle it is absolutely essential that the tube forming the lining of the well should be in such close contact with the earth that the air cannot pass down around the outside of the tube, and the pump used in drawing up the water must also be attached to the end of the tube by an air-tight connection. Unless both of these conditions are fulfilled it is impossible to create a vacuum in the tube and about the portion of it inserted in the water-bearing stratum, and as the creation of this vacuum is the essential and only means of applying the principle which it is claimed constitutes the chief merit of Col. Green's invention or discovery, it follows that in order to protect such a discovery by a patent it must be included within the specifications. This may be done by either a proper description of the result to be obtained or by the means employed to accomplish the result—that is to say, it would be sufficient if it was stated that by the use of certain prescribed means a vacuum in and about the tube would be created and thereby the supply of water would be increased, or if it was stated
680 that the tubing of the well was so driven as to be made airtight by contact with the surrounding earth and the pump to be used was affixed to the tube by an air-tight connection. In the latter case the result reached or the principle put into operation would not be described, but, as the means described must necessarily produce the result or apply the principle, it is held sufficient to describe the means employed without specifying the principle which is thereby brought into play. Indeed, it is not necessary that the inventor, to be entitled to a patent, should himself understand the abstract principle which his invention brings into use. It is sufficient if he is the inventor of a means whereby a new and useful application of the abstract principle is brought about. Still, as already remarked, it is necessary that in the patent and specification the new and useful application of the principle must be described, either by setting forth the result obtained, with the means of its accomplishment, or else by such a description of the means employed as will, if followed, necessarily produce a result which embodies the practical application of the principle involved.

Let us now examine the specifications originally filed by Col. Green, and see whether there is embraced therein the application of the principle of utilizing atmospheric pressure through the creation of a vacuum in the tube and the earth surrounding it, where it penetrates the water-bearing stratum.

The description of the invention is set forth in the following language:

"My invention consists in driving or forcing an iron or a wooden rod with a steel or iron point into the earth until it is projected to or into the water, and then withdrawing the said rod and inserting in its place a tube of metal or wood to the same depth, through which and from which the water may be drawn by any of the usual well-known forms of pumps."

Finally, in setting forth his claim, he does so in the following terms:

"Having thus fully described my invention, what I claim and desire to secure by letters patent in the herein-described process of sinking wells where no rock is to be penetrated, viz., by driving or forcing down a rod to and into the water under ground, and withdrawing it and inserting a tube in its place to draw the water through, substantially as herein described."

It certainly cannot be successfully claimed that in these statements it is set forth in express terms that the principle to be utilized is the atmospheric pressure forcing the water to and into the tube through the agency of a vacuum created in the tube and in the earth at the lower end of the tube, where it penetrates the water-bearing stratum.

There is not to be found in any part of the specifications any reference to a vacuum, either in or out of the tube, nor any mention of atmospheric pressure created thereby. If the application of this principle formed the material and all important part of Col. Green's invention in 1861 and is now claimed in argument he certainly failed to set it forth in express terms in his specifications forming part of the original patent, nor can it be inferred from the description of the means to be employed that he then proposed to
681 create a vacuum by making the well lining air-tight, and by attaching a pump thereto by an air-tight connection.

He describes a driving rod having a swell thereon which is to be driven into the ground and then withdrawn, and a tube of a diameter somewhat smaller than the diameter of the swell of the drill rod is to be inserted in the hole thus made.

In no part of the description is it said, either expressly or by fair implication, that the tube when inserted must fit so closely into the opening made by the rod that no air can pass down on the outside of the tube to the water, nor is it stated that the pump must be attached by an air-tight connection to the top of the tube.

A person can follow with exactness all the instruction therein given, and yet it would not necessarily follow that he had excluded the air from the lining of the well or from the water-bearing stratum at the place where the tube penetrated the same.

In other words, the description of the means to be employed as set forth in these specifications does not show that one of the results arrived at is to render the lining of the well air-tight and to have attached thereto a pump by an air-tight connection. The description of the means to be employed can be carried out in practice without making an air-tight lining or tube, and hence without forming a vacuum around the bottom of the tube or in it. This being true it follows that it cannot, from the description of the means employed, be inferred that Col. Green then intended to claim as part of his discovery or invention the application of the principle that by creating a vacuum in and about the tube, the same having been made air-tight, the flow of water would be largely increased.

He did not claim it in express words, and the description of his invention and the means to be used in carrying the same into practical use fail to show that such was the main or even a necessary part of his invention.

In our judgment his invention or discovery is fully and fairly described in the language of his own claim, to wit:

"What I claim and desire to secure by letters patent in the herein-described process of sinking wells, where no rock is to be penetrated, viz, by driving or forcing down a rod to and into the water under ground, and withdrawing it and inserting a tube in its place to draw the water through."

What he sought to accomplish was to devise a rapid, easy, and feasible means of reaching an underground supply of water, in such a mode that any ordinary pump could be applied to bring it to the surface, and his plan was to drive down a rod into the water, withdraw it, and then insert a tube through which the water could be drawn by any ordinary kind of pump.

In our judgment the evidence introduced by complainants shows that this was all that Col. Green sought to do in 1861, and that in making his experiments at that time he did not contemplate
682 or conceive of the idea that the tube should be made air-
tight so as to create a vacuum in it and about it, and thereby utilize the atmospheric pressure. Hence it is that in the specifications attached to the original patent no mention is made of atmospheric pressure or of a vacuum in and about the tube, nor is it stated, in describing the means to be employed in making the wells, that the tube must be air-tight in its connection with the surrounding earth, or that the pump must be attached thereto.

It is inexplicable, if it was intended to embrace in the original patent the operation of atmospheric pressure in the earth through the creation of a vacuum, which is now claimed to constitute the chief features and merit of the driven well, that the specifications contain no reference thereto, either expressly or even by fair implication.

We conclude, therefore, that the original patent cannot be so construed as to embrace the application of this principle.

Turning now to the specifications of the reissued patents, what do we find? In the first place it is stated "that the hole or opening is made by the mere displacement of the earth, which is packed around the instrument, and not removed upward from the hole as it is in boring;" and it is further said that "I prefer to employ a pointed rod, which, after having been driven or forced down until it reaches the water, I withdraw, and replace with a tube made air-tight throughout its length, except at or near its lower end;" and, further, "I attach to the tube by an air-tight connection any known form of pump."

In these portions of the specifications we find it provided that the earth must be packed around the tube forming the lining of the well; that this tube must be air-tight throughout its length, except at or near the lower end, which penetrates the water, and the pump used therewith must have an air-tight connection with the tube.

Under these specifications it is claimed by complainants that the main feature of the discovery consists in the utilization of the atmospheric pressure through the creation of the vacuum in and about the tube. (See questions 11 and 12, testimony of Wm. D. Andrew, pages 210 and 211, vol. 1, of complainants' record.)

Giving these specifications the construction which complainants put thereon, it follows that the reissued patent covers—

1. The process of sinking wells by forcing down a rod or tube to the water-bearing stratum without removing the earth upwards as in boring or digging.

2. Creating a vacuum in the tube forming the lining of the well by making the tube air-tight, except at the lower end, compacting the earth around the tube, and by attaching a pump with an air-tight connection to the tube.

In the argument of counsel, as well as in the testimony of complainants, it is urged that the great merit of Col. Green's invention consists of the discovery of the effect of the vacuum thus created.

According to the view we take of the original patent, it did not cover or describe the application of this principle.

It follows, therefore, that the reissue embraces the application of an important and material principle not found in the original.

683 The rule is well settled that a reissue can be validly granted only for the same invention which was originally patented. If the reissue goes beyond this and covers other and different inventions or improvements suggested by the use of the original invention it will be void. See Bun *vs.* Durgee, 1 Wallace, 531; Manufacturing Co. *vs.* Ladd, 102 U. S., 408; Miller *vs.* Brass Co., 104 U. S., 350; James *vs.* Campbell, 104 U. S., 356; Manufacturing Co. *vs.* Corbin, 103 U. S., 780.

As we view the evidence in this case, we find that Col. Green in his original invention did not embrace the idea of creating a vacuum in the lining of the well for the purpose of utilizing the pressure of the atmosphere, nor did his original patent, either expressly or impliedly, cover or describe the application of this principle; that this idea of utilizing the atmospheric pressure was an afterthought on the part of complainants; that to protect it as a part of Col. Green's invention it was evidently necessary that the specifications should be enlarged; that the reissue was obtained for the purpose of covering thereby this idea of atmospheric pressure caused by a vacuum in an air-tight tube.

That the complainant now claims that the chief merit of the invention consists in creating a vacuum in the tube and the earth surrounding it, where it penetrates the water-bearing stratum, and through the pressure of the atmosphere forcing a larger and more continuous supply of water into the tube forming the lining of the well, and that the application of this principle is provided for and embraced within the specifications of the reissued letters patent.

Giving these specifications the construction claimed therefor by complainants, it follows, in our judgment, that the reissue departs widely from the original and embraces the application of a principle not covered by the original invention of Colonel Green, and consequently that the reissued patent must be held void.

In determining this question of the validity of the reissued letters patent we have assumed that the construction put thereon by complainants and their counsel is legally correct, to wit, that there is embraced therein the principle of utilizing atmospheric pressure by creating a vacuum in the tube and about the same where it penetrates the water-bearing stratum.

We have also assumed, without questioning it, that the theory of complainants in regard to the creation of a vacuum about the tube and its effect in increasing the flow of water into the tube through the pressure of the atmosphere upon the other portions of the water-bearing stratum is correct. In the view we have taken of the case it has not been necessary to investigate fully the scientific points involved in the latter proposition, but we will only say that the experiments made before the court and the evidence adduced on this question in physical science has not fully demonstrated to our satisfaction the correctness of the theory relied upon by complainants.

3. Upon the issue of originality of invention by Col. Green a large
amount of evidence has been adduced with a view of showing
684 that this method of sinking wells had been substantially de-
scribed in various publications antedating Col. Green's discovery, and also that wells had been sunken by this method at different times and places. We do not deem it necessary to specially mention more than two of these alleged prior discoveries. Whilst it cannot well be questioned that it is shown that in some of the other instances a near approach was made to the method subsequently adopted by Col. Green, yet we do not think it can be said that these isolated instances were anything more than mere experiments, not developed to an extent sufficient to enable the court to say that they clearly anticipated Col. Green's discovery. There are two instances, however, which cannot be so summarily disposed of, these being, first, the well at Independence, Iowa, and, second, the wells driven at Milwaukee, Wisconsin, by E. W. Purdy.

In regard to the well at Independence the query is whether it was, in fact, constructed in 1861, as claimed by defendants, or in 1866, as averred by complainants. The defendants claim that there were two wells driven at Independence, one in the early summer of 1861, the other in 1866, while the complainants aver that there was but one well—*i. e.*, the one driven in 1866, and that the witnesses who place it in 1861 are simply mistaken in the date.

In several of the cases heretofore heard touching the validity of

Colonel Green's patent the question in regard to this Independence well has been presented, and it has been therein held that the conflict in the testimony was to be reconciled by holding that the witnesses for the defendants, whilst testifying truthfully to the existence and character of this well, had mistaken the date and placed an event in 1861 which really took place in 1866. If the evidence submitted to us was substantially the same as that submitted in the cases referred to we should not feel disposed to re-examine the question at issue, but we have had presented to us much additional evidence largely intended to prove the date of the driving of the well in question by proving the date of other facts which are so connected with the existence of the well that proof of the date of the former unmistakably fixes the time when this well was driven and in use.

Thus a number of witnesses, who probably could not by a mere effort of memory fix the month or the year when they saw and used the well, testify to facts which corroborate their recollection that they saw and used this well when the soldiers were enlisting at Independence and forming companies, commanded by Captains Lee and Hord, for the purpose of entering the Union Army.

That these companies were organized at Independence is a fact beyond dispute. So with other facts, the date of which is not open to question, such as the time when Sherwood and Kimball kept the hotel at Independence, the date of Col. Lake's marriage, the use of the well by the cricket club, who played cricket upon the grounds adjoining the lot where the well was driven, and which club was broken up by a number of its members entering the army in 1861.

685 By such facts as these the defendants have greatly strengthened their position in regard to this well at Independence, and while it cannot be doubted that there is much plausibility in the argument urged against the reliability of this evidence, still it seems to us that the preponderance of the evidence upon this question is with the defendant, and that it must be held, as a conclusion of fact—

1. That in the early part of the summer of 1861 there was constructed at Independence, Iowa, a driven well, which proved a success.
2. That this well was constructed by driving a tube down into the water-bearing stratum and attaching to the tube a pump, by which the water was drawn up through the tube in apparently an inexhaustible quantity.

It does not appear, however, that any other wells came into use by reason of the driving of the one under consideration; and if the decision of the court depended solely upon the effect to be given to the driving of this one well we might well doubt whether it would not be proper to treat it as a mere isolated experiment, which would not be held to defeat the rights of an independent inventor.

In regard to what may be called the Milwaukee wells, it is shown by the testimony of E. W. Purdy that in 1849 and 1850 he was in the business of making wells at Milwaukee, Wis.; that he used iron rods about two inches in diameter, and made so they could be coupled together. The first rod was about 16 feet long, the lower end being in shape of a drill. This rod was worked up and down by a rope running over a gin pole, the rod being raised up and down, and in that way the earth was displaced by the rod as it went down. Tubing of about four inches in diameter was driven down as the rod progressed. This tube formed the lining of the well. No earth was removed upward except in case of striking quicksand, when a long sheet-iron bucket with a valve in the bottom was used to bring up the quicksand. When the tube had been forced down into the water, if the water did not come to the surface, a pump was used, the tube to which the pump was attached being placed inside the tube first forced down, the latter forming the lining of the well.

It is shown by the testimony of Purdy that he drove a large number of these wells, and the places where and the parties for whom they were driven are given in several instances. In some cases the wells were driven to the depth of 60 and 100 feet.

In these wells thus driven there was used, first, a rod for puncturing the earth, which was driven down to the water-bearing stratum; second, into the aperture thus made a tube was forced, which was in close contact with the earth and which formed the lining of the well, and through which the water either flowed naturally or was drawn by the aid of a pump inserted therein.

Comparing this method of driving wells and its results with that adopted by Col. Green in 1861 and described in the specifications attached to the original letters patent, we confess our inability to see any substantial difference.

686 What he expressly claimed in his original specifications was the process of sinking wells by driving or forcing down a rod to and into the water under ground and withdrawing it and inserting a tube in its place to draw the water through, and it is just this process in substance that was employed in Milwaukee.

These wells driven at Milwaukee cannot be set aside as abandoned experiments. Purdy testifies that he was engaged in sinking them as a regular business. Numbers were put into practical use. This testimony remains uncontradicted, and it is not claimed that these wells are a myth. If, then, it be true that in 1849 and 1850 wells were driven at Milwaukee by a process not distinguishable from that devised by Col. Green in 1861, and these wells were driven not as mere experiments nor for the purpose of exhibition, but for public and continuous use, and from aught now shown may be in use to-day, can any other conclusion be reached than that Col. Green was not the original or first inventor of the process of driving wells described in his specifications? In our judgment the method pursued in sinking these wells at Milwaukee is the same in substance as that devised by Col. Green, differing only in minor particulars, and hence it follows that Col. Green's process for driving wells was only a reproduction of a method which had been devised and put to practical public use fully ten years before Col. Green hit upon the same expedient.

If this be true then it necessarily results that the defense of want of novelty must be sustained.

The conclusions we have reached upon the points already discussed render it unnecessary to consider the other questions, including that of infringement, which are presented in the record.

Under the view we have taken of the case it follows that complainants' bill must be dismissed with costs, and it is so ordered.

Love, D. J., concurs.

Nelson, D. J., dissents.

(Endorsed:) Wm. D. Andrews *vs.* George Hovey *et al.* Opinion of Judge Shiras. Filed May 9, 1883. E. R. Mason, clerk.

687 And on the — day of ——, 18—, an opinion of Hon. J. M. Love was filed in said cause in the words and figures following, to wit:

688 *Opinion.*

United States Circuit Court, Central Division, Southern District, Iowa.

WM. D. ANDREWS *et al. vs.* GEORGE HOVEY.

By LOVE, *J.:*

I concur fully in the opinion just delivered by my brother Shiras, and I can add nothing to what he has said touching the points which he has considered. I purpose, however, to give my own views upon one question which has not been discussed in the opinion. The respondent sets up the defense, among others, that the alleged invention of Col. Green was in public use for more than two years prior to his application for a patent and after the time when, as Col. Green claims, his invention was perfected. But the complainants insist that this defense cannot be maintained, because one of its essential conditions is that the public use for two years must have been with Green's knowledge and consent, and the complainants contend that the defendant has failed to establish the fact of Green's knowledge and consent. If it were necessary, in my view, to the decision of this point I would be compelled to find the fact to be that Green did know of the use of the invention for more than two years prior to his application. In my judgment, the preponderance of evidence, both direct and circumstantial, shows that Green did know the fact that driven wells substantially the same as his were in public use for a period of more than two years before he made his application.

Several witnesses, apparently credible, against Green alone testify to facts showing directly Green's knowledge and acquiescence in the use of his invention for the time mentioned. Besides, it appears that quite a number of driven wells were put down and used in the town of Cortland, New York, where Green lived for more than three years before he filed his application, and it is difficult to see how Green could have been ignorant of such a fact, considering the deep interest he must have felt in its results; but in my judgment it is unnecessary to this defense to find that Green knew of and assented to the use of his invention for the period in question. Green's original patent was issued when the act of 1839 was in force, and it is clear to my mind that according to the true construction of that act a public use of an invention for two years prior to the application with or without the consent of the inventor is sufficient to invalidate the patent.

The 7th section of the act of 1839 (5th Stat. at Large, 353) provides that "every person or corporation who has or shall have purchased or constructed any newly invented machine, manufacture, or composition of matter prior to the application of the inventor or discoverer for a patent shall be held to possess the right to use and vend to others to be used the specific machine, manufacture, or composition of matter so made or purchased without liability therefor to the inventor or any person interested in such invention, and no patent shall be held to be invalid by reason of such purchase, sale, or use prior to the application for a patent as aforesaid, except on proof of abandonment of such invention to the public or that such purchase, sale, or prior use has been for more than two years prior to such application for a patent."

689 The section just quoted was, no doubt, intended as an amendment of the 6th section of the act of 1836, as follows: "That any person or persons having discovered or invented any new and useful art, machine, manufacture, or composition of matter or any new and useful improvement on any art, machine, manufacture, or composition of matter not known or used by others before his or their discovery or invention thereof and not, at the time of his application for a patent, in public use or on sale with his consent or allowance as the inventor or discoverer, and shall desire to obtain an exclusive property therein, may make application in writing to the Commissioner of Patents expressive of such desire, and the Commissioner, on due proceedings had, may grant a patent therefor."

What is the true construction of the 17th section of the act of 1839, just quoted? It is essential to a defense set up under that section that the "sale or prior use" of the invention for more than two years before the application for a patent should be with the inventor's "consent or allowance." In the case of Eggert *vs.* Leppman, Blatchford, J., said: "The effect of the act of 1839 is to require that an inventor shall not permit his invention to be used in public at a period earlier than two years prior to his application for a patent, under the penalty of having his patent rendered void by such use. Consent and allowance by the inventor are not necessary to such invalidity." The decree in this case was affirmed by the Supreme Court of the United States, 104 U. S., 333. Mr. Justice Woods, in delivering the opinion, says that "since the passage of the act of 1839 it has been strenuously contended that the public use of an invention for more than two years before such application, even without his (the inventor's) consent and allowance, renders the letters patent therefor void. It is unnecessary in this case to decide this question, for the alleged use of the invention covered by the letters patent to Barnes is conceded to have been with his express consent." It is, therefore, to say the least, an open question whether or not the consent of the patentee to the public use is a condition essential to the defense in question. For my own part I must say that but for the doubt thus cast upon the construction of the 7th section of the act of 1839 I could not possibly entertain a question about it.

Upon what principle of construction may we attempt to interpolate the significant words " consent or allowance " into the statute?

These words do not appear in the statute. No such condition is expressed as these words imply. The plain, simple, and unqualified provision is that " no patent shall be held to be invalid by reason of such purchase, sale, or use prior to the application, except on proof of abandonment of such invention to the public or that such purchase, sale, or prior use has been for more than two years prior to such application for patent." Not a word is here used to the effect that such prior use or sale shall be with the " allowance or consent " of the patentee. If we get such a condition into the section we must do it either by construction or interpolation. Now, the interpolation of material words into a statute is ordinarily an act of simple violence. It is a settled rule in the interpretation of contracts 690 and statutes that their meaning and intent must be ascertained from all and not from a part of the words of the act or instrument; it would do violence to this rule, in the construction of a statute, to cast out certain words and consider only what remained; and surely we may, with much stronger reason, say that it would be wholly inadmissible to incorporate into a statute words not found in it, and thereby give the act a meaning and construction wholly different from that which it would bear without such interpolation.

It may not be amiss here to note what a celebrated writer upon the law of nations says upon the interpretation of treaties: " The first general maxim of interpretation is that it is not permitted to interpret what has no need of interpretation. When an act is conceived in clear and precise terms, when the sense is manifest and leads to nothing absurd, then there can be no need to refuse the sense which a treaty naturally presents. To go elsewhere in search of conjectures in order to restrain or extinguish it is to endeavor to elude it. If this dangerous method be once admitted there will be no act which it will not render useless." Vattel, Law of Nations, book 2d, chapter 17, page 368.

Now, what is there in the clause in question that needs interpretation? It is plain and unambiguous. It is free from obscurity. Does the language of the clause, when received in its obvious sense lead to any absurd result? Would it when so taken work such gross and palpable injustice as to lead the mind to conclude that the Legislature intended it to be received in some other and different sense? On the contrary, a legislature had, in my opinion, a wise purpose in fixing a period of limitation which should not depend upon the uncertain question of the patentee's consent. Its purpose was to require some degree of diligence from the inventor in the assertion of his rights and to give him full protection when he exercised that diligence, and at the same time to protect the public in the exercise of rights examined where the patentee should, by reason of his own negligence, fail even to file his application for a patent

for a period of two years. The Legislature may justly have considered a period of two years from the completion of the invention quite a sufficient time to enable the inventor to make his application. No injustice could possibly arise to him from such a rule except as a consequence of his own negligence. What but negligence could lead an inventor to delay the assertions of his claims for more than two years from the maturity of his right? And was it the intention of Congress to protect him against the consequences of his own negligence? If the complainants' construction is to prevail, there is no time whatever prescribed within which, without the inventor's own consent to the use, he is required to make his application for a patent. The inventor could, under this construction, by simply refusing his consent, safely withhold his invention from public use for an unlimited period of time after bringing it to perfection. He might, after the lapse of many years, and after his invention should be in general use, by simply denying his consent or by mere silence, obtain a patent and thus override and prejudice intervening investments and industries unless, indeed, a case of abandonment could be made out. This, it is easy to see, would be against sound
691 policy as well as private justice. The public interest would be prejudiced and individuals injured without real benefit to the inventor since his true interest would certainly not be promoted by the delay.

Congress did, indeed, in the act of 1836, give to the inventors and discoverers the right to apply for a patent without limit as to time after they were in public use or — sale unless the public use or sale was with their own consent or allowance; but, the unwisdom of the provision becoming apparent, Congress, in the act of 1839, changed the law by prescribing a fixed period of limitation and omitting the words requiring the inventor's "consent or allowance" to the use or sale of his invention. The intention of Congress, in the act of 1839, is further illustrated by section 4886 of the Revised Statutes. It will appear, by inspection of this section, that it embodies so much of the 7th section of the act of 1839 and the 6th section of the act 1836 as it was the purpose of Congress to preserve, and that, while the two years' limitation is in express terms re-enacted in the 4886, the section of the revision, the qualifying words requiring the consent or allowance of the inventor used in the act of 1836, are entirely omitted. The section is as follows: "Section 4886. Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof not known or used by others in this country and not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof, and not in public use or on sale for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law and other due proceedings had, obtain patent therefor." It will not, I suppose, be doubted that the two years' limitation clause in the 7th section of the act of 1839 must receive precisely the same construction as the two years' limitation clause in section 4886 of the Revised Statutes. The language of this clause in the two sections being substantially the same and the purpose of the Legislature the same, it follows that the construction must be the same.

Now, does any one for a moment suppose that the words "and not in public use or on sale for more than two years prior to his application," in section 4886 of the revisions, will bear the construction that the two years' public use, in order to invalidate the patent, must be with the "assent or allowance" of the inventor? Will any court ever interpolate the words "assent or allowance" into section 4886 thus: And not in public use or on sale "with the assent or allowance of the inventor" for more than two years prior to his application? What possible reason could have moved Congress to provide that the public use in order to defeat the patent and vest a right to use the invention in the public should continue for two years if that public use was to be with the consent and allowance of the inventor?

The act of 1839 must, I think, have been specially intended to apply to a class of persons who should make, use, and vend the "machine, manufacture, or composition of matter" before the application without the allowance or consent of the patentee. The 7th
692 section of that act, it will be observed, provides, substantially,
that any person who has or shall have constructed or purchased such newly invented thing prior to the inventors application shall have the right to use and vend to others such specific thing without liability to the inventor or other person interested in the same. Now, this must surely refer to persons who should construct or purchase the newly invented thing without the inventor's consent or allowance, because if it were constructed or purchased with the inventor's allowance and consent he could not, on general principles, make them liable as infringers.

This particular provision of the 7th section was therefore wholly unnecessary and nugatory except as a protection to those who should invade the inventor's right without his "consent or allowance" before the application.

And can it be doubted that the words which immediately follow in the same section refer, in part at least, to the same class of persons, namely, those who should purchase or make the inventor's "machine, manufacture, or composition of matter" without his consent or allowance?

Can it be questioned that the provision that "no patent shall be held to be invalid by reason of such purchase, sale, or use prior to the application for a patent, etc., except on proof that such purchase, sale, or prior use has been for more than two years prior to such application" was intended to embrace at least the class of cases referred to in the immediately preceding part of the section?

In my opinion, this two years' limitation was intended in the act of 1839, as it unquestionably is in the 4886th section of the Revised Statutes, to be general, and that it applies to all cases in which the invention has been in public use or on sale for more than two years prior to the application, whether with or without the consent or allowance of the inventor.

It is obvious from the plain reading of the act of 1836 that under its provisions an inventor who permitted or allowed the public use or sale of his invention up to the time of his application was not entitled to protection, for the unavoidable implication from the language is that he should not be entitled to a patent.

The law would not permit him to call to account as infringers persons whom he had allowed to use his invention, and perhaps invest their money in it, before he gave notice of his intention to claim it by making his application.

The class of persons, therefore, who used or sold the "art, machine, manufacture, or composition of matter" with the consent of the inventor were fully provided for and protected by the act of 1836; but there was another class not provided for by that act, namely, those who should use, purchase, or sell the thing invented without the inventor's consent before his application. The public use and sale of the inventor did not under the statute of 1836 preclude the inventor from his right to a patent and his right to call infringers to account where his invention was used before the application without his allowance or consent. Yet it is obvious that the latter class of persons might have a certain equity which the law ought to
693 protect, and the primary object of the 7th section of the act of 1839 seems to have been the protection of those who might, before the application, without the inventor's consent, use his invention, and perhaps invest money in it; hence the 7th section of that act provides that "any person or corporation who shall or shall have purchased or constructed any newly invented machine, manufacture, or composition of matter prior to the application by the inventor or discoverer for a patent shall be held to possess the right to use and vend to others to be used the specific machine, manufacture, or composition of matter so made or purchased without liability therefor to the inventor or any other person interested in such invention." If the statute had stopped here a possible inference might have arisen that a patent issued to an inventor, where his invention had been on sale or in use even without his consent, would be held invalid. This would have been unjust to the inventor. It was his own fault or negligence if his invention came into public use with his own consent or allowance, and the act of 1836 denied him relief against the consequence of his own fault or negligence; but it was the manifest purpose of the act of 1839 to guard carefully against any possible implication that the sale or use of the invention without the inventor's consent or allowance should deprive him of his right to a valid patent; hence it is further provided in the same clause of section 7, following the words just quoted, that "No patent shall be held to be invalid by reason of such purchase, sale, or use prior to the application for a patent," except what? Except on proof of abandonment or on proof that such purchase, sale, or prior use has been for more than two years prior to such application for a patent.

Now, what follows from this analysis of the two statutes? Is not the inference plain and irresistible that the purchase, sale, or prior use of the things invented for two years before the application without the assent and allowance of the inventor would invalidate the patent? Can we here interpolate the words "with the assent and allowance" of the inventor, seeing that the very object of the thirty-ninth section was to provide for a class of cases in which the invention should be used without the inventor's consent or allowance?

The clause of the act of 1839 in question here is, I think, a statute of limitation, and all such statutes are founded rather upon considerations of public policy than private justice; and where no exceptions are made in the statute itself it is not competent for the courts to introduce them. If married women, infants, and other persons under disability were not excepted from the provisions of a statute of limitations no court could incorporate into the statute a saving clause in their favor.

Standing upon the broad grounds of public policy, it matters not that a statute of limitations may work injustice in particular cases. If my construction of the seventh section of the act of 1839 be correct it is decisive of the present case, since it is established by the evidence beyond doubt that Green's invention was in public use for more than two years prior to his application for a patent.

(Endorsed:) W. D. Andrews *vs.* George Hovey *et al.* Opinion of Judge Love. Filed May 9, 1883. E. R. Mason, clerk.

694 And on the 19th day of May, 1883, an opinion of Hon. R. R. Nelson was filed in said cause in the words and figures following, to wit:

695 *Dissenting Opinion.*

By Nelson, *J.:*

I dissent from the conclusions and judgment of my associates, Judges Love and Shiras, for the following reasons:

1. Because, in my opinion, Green was the first and original discoverer of a patentable process described in the letters patent issued to him, and the claim in the reissue is not enlarged and is for the same process described in the original.

2. Because, before the act of 1870, it was generally understood and, in my opinion, correctly decided that, under secs. 7 and 15 of the act of 1836 and sec. 7 of the act of 1839, a use of the invention more than two years prior to the application would not defeat a patent unless the use was had with the consent and allowance of the inventor. Such use is not proved.

Kelleher *vs.* Dashing, 3d Banning & Arden Patent Cases, p. 449.
Drasser *vs.* Waittes, 3d B. & A., page 618.
Hening *vs.* Prov. Tool Co., 3d B. & A., pages 501–'8.

3. Because the Milwaukee wells testified by "Purdy" were artesian wells, and Green's process was not used. The tubing described make a reservoir, and a lead pipe attached to a pump was dropped into it and the water drawn through the lead pipe.

4. Because prior use should be clearly established, and mere preponderance of evidence is not sufficient and satsfactory; "to doubt

upon this point is to resolve it in the negative." The proof of prior use at Independence, Iowa, leaves room for a fair and reasonable doubt when weighed with care and scrutiny.

4 Fisher, Patent Cases, 468–482.
4 Fisher, Patent Cases, 559–'60.

(Endorsed:) Andrews *et al. vs.* Hovey *et al.* Opinion of Judge Nelson. Filed May 19, 1883. E. R. Mason, clerk.

696 And on the 22nd day of May, 1883, it being in the May term, 1883, of said court, in the record of the proceedings thereof is a final decree in said cause in the words and figures following, to wit:

697 United States Circuit Court, Central Division, Southern District, of Iowa. May Term, 1883.

William D. Andrews, George H. Andrews, Nelson W. Green, and Noah J. Parsons
vs.
George Hovey.
} Eq. No. 1350.

Tuesday, *May* 22, 1883.

This cause, the same having been heretofore fully submitted to the court and taken under advisement, now comes up for final disposition, and the court, having duly considered the same, files an opinion and decision in writing, wherein the court finds, upon the several issues of fact and law therein set forth, in favor of the respondents.

698 It is therefore ordered, adjudged, and decreed that complainants' bill be dismissed and that respondents have judgment for costs of this proceeding, taxed at $—.

Thereupon complainants pray and appeal to the Supreme Court of the United States, which is allowed upon filing a bond in the penal sum of three thousand dollars, conditioned as the law directs, with sureties to be approved by one of the judges of this court.

699 And on the 20th day of July, 1883, the complainants, by their solicitors, filed in said cause an appeal bond in the words and figures following, to wit:

700 In the Circuit Court of the U. S., Southern District of Iowa. In Equity.

W. D. Andrews *et al.*
vs.
George Hovey.
} No. 1350.

Know all men by these presents that we, W. D. Andrews, George H. Andrews, Nelson W. Greene, and Noah J. Parsons, complainants in the above-entitled cause, and Henry Bennett, Jr., W. W. Smith, I. N. Isham, and C. G. Greene, of Cedar Rapids, Iowa, are held and firmly bound unto George Hovey, the defendant in the above cause, in the sum of three thousand dollars, to be paid to the said George Hovey, his executors or administrators; to which payment, well and truly to be made, we bind ourselves and each of us, jointly and severally, and our and each of our heirs, executors, and administrators, firmly by these presents.

701 Dated this 11th day of July, A. D. 1883.

Now, the conditions of the above obligation is such that whereas the above-named W. D. Andrews, George H. Andrews, Nelson W. Greene, and Noah J. Parsons have appealed from the above court to the Supreme Court of the United States to reverse the decree rendered in the above-entitled cause by the circuit court of the United States, southern district of Iowa:

Now, therefore, the conditions of this obligation is such that if the above-named W. D. Andrews, George H. Andrews, Nelson W. Greene, and Noah J. Parsons shall prosecute their said appeal with effect and answer and pay all damages and costs in case they shall fail to make their plea good, then this obligation to be void;

702 otherwise to remain in full force and virtue.

(Signed)
WM. D. ANDREWS.
GEO. H. ANDREWS.
NOAH J. PARSONS.
NELSON W. GREENE,
By R. R. WEST, *Att'y.*
HENRY BENNETT, Jr.
W. W. SMITH.
I. N. ISHAM.
C. G. GREENE.

STATE OF IOWA, *County of Linn:*

I, Henry Bennett, Jr., one of the parties named in the foregoing bond, being duly sworn, depose and say that I am worth, over and above all my debts and liabilities and exemptions of every kind, and of property situated within the State of Iowa, in the amount of four thousand dollars.

(S'g'd) HENRY BENNETT, Jr.

The foregoing affidavit was subscribed in my presence and

703 sworn to before me by the above-named Henry Bennett, Jr., this 17th day of July, A. D. 1883.

Witness my hand and seal.

[SEAL.] (S'g'd) A. R. WEST,
Notary Public in and for Linn County, Iowa.

STATE OF IOWA, *County of Linn:*

I, W. W. Smith, one of the parties named in the foregoing bond, being duly sworn, depose and say that I am worth of property within the State of Iowa, over and above all my debts, liabilities, and exemptions — property, of the value of at least four (4) thousand dollars.

(S'g'd) W. W. SMITH.

The foregoing affidavit was subscribed in my presence and sworn to before me by the above-named W. W. Smith this 17th day of July, A. D. 1883.

Witness my hand & seal.

[SEAL.] (S'g'd) A. R. WEST,

704 *Notary Public in and for Linn County, Iowa.*

STATE OF IOWA, }
Linn County, } *ss:*

I, I. N. Isham, one of the parties named in the foregoing bond, being duly sworn, depose and say that I am worth, over and above all my debts, liabilities, and exemptions of property within the State of Iowa, the sum of three thousand dollars.

(S'g'd) I. N. ISHAM.

The foregoing affidavit was subscribed in my presence and sworn to before me by the above-named I. N. Isham this 17th day of July, 1883.

Witness my hand & seal.

[SEAL.] (S'g'd) A. R. WEST,

Notary Public in and for Linn County, Iowa.

STATE OF IOWA, }
Linn County, } *ss:*

705 I, C. G. Greene, one of the parties whose name is in the foregoing bond, depose and say that I am worth, over and above all my debts, liabilities, and exemptions of property within the State of Iowa, the sum of not less than three thousand dollars.

(S'g'd) C. G. GREENE.

The foregoing affidavit was subscribed in my presence and sworn to before me by the above-named C. G. Greene this 18th day of July, A. D. 1883.

Witness my hand and seal.

[SEAL.] (S'g'd) A. R. WEST,

Notary Public in and for Linn County, Iowa.

STATE OF IOWA, }
Linn County, } *ss:*

I, Geo. L. Stearns, clerk of the dist. court within and for county and State above named, hereby certify that I am acquainted with Henry Bennett, Jr., I. N. Isham, W. W. Smith, and C. C. 706–707 Greene, parties who have signed the within bond, and from personal examination I know them to be worth the sums set forth in their several affidavits and that the within bond is perfectly good for amount named therein, and if offered in my county would approve the same.

Dated at my office, in Marion, this 18th day of July, 1883.

[SEAL.] (S'g'd) GEO. L. STEARNS,

Clerk of the District Court.

The foregoing bond is hereby approved.
July 19th, 1883.
(S'g'd) J. M. LOVE, *Judge.*

(Endorsed:) No. 1350. Eq. Wm. D. Andrews *et al. vs.* George Hovey. Appeal bond. Filed Jul. 20, 1883. Ed. R. Mason, clerk.

708 UNITED STATES OF AMERICA, *Southern District of Iowa,* } *ss:*

The President of the United States to George Hovey:

You are hereby cited and admonished to be and appear at a Supreme Court of the United States to be holden at Washington on the second Monday of October next, pursuant to an appeal filed in the clerk's office of the United States circuit court for the central division, southern district, of Iowa, wherein William D. Andrews, George H. Andrews, Nelson W. Green, and Noah J. Parsons are appellants, to show cause, if any there be, why the judgment rendered against said appellants, as in the said appeal mentioned, should not be corrected and why speedy justice should not be done to the parties in that behalf.

Witness the Honorable James M. Love, one of the judges of the U. S. circuit court for the southern district of Iowa, at the 709 city of Keokuk, in the said district, this 19th day of July, 1883.

J. M. LOVE, *Judge.*

Due and legal service of the foregoing citation is hereby accepted this 23rd day of July, A. D. 1883.

LAKE & HARMON,
Solicitors for Appellee.

STATE OF IOWA, *Buchanan Co.,* } *ss;*

I, E. L. Currier, being duly sworn, depose & say that I personally served the foregoing citation upon said George Hovey, in Independence, Buchanan Co., Iowa, on the 1st day of August, A. D. 1883, by reading same to him in his presence & hearing & delivering to him a true copy thereof.

E. L. CURRIER,
(*Sheriff Buchanan Co., Ia.*)

The foregoing affidavit was subscribed in my presence & sworn to before me this 1st day of August, A. D. 1883, by said E. L. Currier.

Witness my hand & seal.

[Notarial Seal, John J. Ney, Independence, Iowa.]

JOHN J. NEY,
Notary Public.

Fees for service, 80 cts.

[Endorsed:] Andrews *et al. vs.* Hovey. Citation. Filed Aug. 3, 1883. Ed. R. Mason, clerk.

710 United States Circuit Court, Central Division, Southern District, of Iowa.

I, Edward R. Mason, clerk of said court, do hereby certify that the above and foregoing transcript contains full, true, and complete copies of all the pleadings, proceedings, and record entries, except the testimony, in a certain cause adjudicated in said court, wherein William D. Andrews *et al.* were complainants and George Hovey was defendant, as full, true, and complete as the originals of the same now remain on file and of record in my office.

I further certify that the original citation, with the return of service endorsed thereon, is hereto attached and herewith returned.

In testimony whereof I hereunto subscribe my name and affix the seal of said court, at the city of Des Moines, in said district, this 11th day of October, A. D. 1883, and of our Independence the one hundred and eighth year.

[Seal U. S. Circuit Court, Southern District, Iowa.]

EDWARD R. MASON,
Clerk U. S. Circuit Court, Central Division, Southern Dist., Ia.

711–714 And the complainants, to sustain the issues in their behalf, introduced upon the hearing in said cause the following testimony and documentary evidence, to wit:

715 Testimony taken upon the part of complainants in this case of W. D. Andrews *et al. vs.* George Hovey, pending in the circuit court of the United States in and for the district of Iowa, in pursuance of the annexed agreement and stipulation, upon final hearing of said cause August 5th, 1879, at 9 o'clock a. m., Ricket, West & Eastman appearing as solicitors for complainants and Lake & Harmon as solicitors for defendants.

George Hovey was produced on part of said complainants, and, duly sworn as required by law, deposes as follows:

716 Complainants here offer letters patent, known and designated as reissue 4372, issued to Nelson W. Green May 9, 1871, marked Exhibit "A."

Also certified copy of assignment and power of attorney, marked Exhibit "B," dated July 3, 1871, Nelson W. Green to W. D. Andrews and George H. Andrews, composing the firm of W. D. Andrews & Bro.

Defendant objects to this copy as not being the best evidence, being a printed extract and not the originol paper, and further that this assignment does not purport to be an assignment of the patent offered in evidence.

Complainants also introduce in evidence an assignment from Nelson W. Green and W. D. Andrews & Bro. to Noah J. Parsons, dated 15th of October, 1878, of an undivided one-twentieth ($\frac{1}{20}$) of the State of Iowa, of letters patent, known as reissue of No. 4372, marked Exhibit "C."

Complainants also offer in evidence a certified copy of letters patent granted to Elias S. Hovey, February 20, 1872, numbered 123,903, for improvement in the formation of drive wells.

Complainants also offer in evidence certified copy of decree entered in the case of W. D. Andrews *et al. vs.* Theodore A. 717 Carman, of the circuit court of the United States for the eastern district of New York.

Complainants offer in evidence certified decree of the circuit court of the United States for the district of Minnesota in case of W. D. Andrews *et al. vs.* Geo. B. Wright.

Complainants introduce in evidence a certified decree of the circuit court of the United States for the district of Indiana in the case of Henry B. Hine *et al. vs.* Jacob Wahl, marked Exhibit "F."

718 Int. 1. What is your name, age, residence, and occupation?

A. My name is George Hovey; am 59 years old; reside at Independence, Iowa; am a dealer in well material.

Int. 2. What is your relation to this suit?

A. I am the defendant.

Int. 3. How long have you been engaged in putting down wells?

A. Since the spring of 1871.

Int. 4. Have you got books or papers showing for whom you put down wells during that time?

A. Not all.

Int. 5. Have you any; and, if so, to what extent?

A. What was put in between Hovey Bros. I have not the books.

Int. 6. Those you put down on your own account have you the books or papers?

A. I have not.

Int. 7. Have you any books or papers referring to wells put down on your own account or that of your brothers; and, if so, what have you?

A. I have none of my brothers; I may have some of my own; I have not many. I lost the book between here and New Hartford or at New Hartford; I mean the book I had used for two years.

719 Int. 8. When did you lose it?

A. I think two years ago this fall.

Int. 9. How have you been keeping your account of wells since you lost that book?

A. I have not kept a regular account. When a man paid me or a note was given I never put it on the book.

Int. 10. Did you, in obedience to the subpœna in this case, bring with you any books or papers relating to your putting down wells?

A. I have no such book or papers.

Int. 11. Have you no books or papers showing for whom you have put down wells or where you have put them down?

A. I have some.

Int. 12. Why did you not bring them and produce them, in obedience to the subpœna that was served on you?

A. I have no books stating the manner I put in wells.

Int. 13. You refuse, then, to produce the books and papers showing for whom you put down wells?

A. I have not been asked, as I understand it.

Int. 14. Have you not been asked to produce all papers pertaining to your putting down wells?

A. No, sir.

Int. 15. You please read from the copy of the subpœna now in your hand and served on you that part relating to your producing books and papers.

A. That you bring with you all books and papers relating to your constructing wells in Iowa.

Int. 16. You consider that your books and papers showing for whom and where you put down wells in Iowa does not in any manner relate to your business of constructing wells?

A. No.

Int. 17. How far do you reside from the place of taking this testimony?

A. About one-half mile.

720 Int. 18. Are the books and papers you refer to at your residence, about ½ mile from here, or any part of them?

A. Yes, part of them.

Int. 19. Will you produce those books and papers upon the coming together of the attorneys and examiner this afternoon?

A. No; if I am asked if I put in a well for such a man I will tell whether I did or not.

Int. 20. Can you tell for whom you put in wells without your books and papers?

A. I can for part of them.

Int. 21. What number can you give?

A. Well, I can't state.

Int. 22. Now, go on and state for whom you have put down wells in Iowa and when and where, without your books and papers.

A. If he will ask me the name I will answer, but in no other way.

Int. 23. Then you refuse to tell for whom you put down wells in Iowa and when and where?

A. Yes.

Int. 24. Why do you refuse?

A. I don't wish to bring others into the suit until mine is through.

Int. 25. Who, if any one, has instructed you not to produce those papers and books?

A. No one that I know of.

Int. 26. Has any one advised you not to produce them?

A. No, sir.

Int. 27. Has any one suggested to you that you had better not produce them?

A. Well, somebody or other did a good while ago—I think it was one of my brothers. There may have been others; I don't remember of any others.

Int. 28. Do you not know that you are guilty of contempt of court in refusing to tell for whom you put down wells, and when and where?

A. No, I don't.

721 Solicitor for complainants here informs the witness that it is his duty to answer; that he is guilty of contempt of court unless he does answer.

Q. 29. Do you still refuse to tell for whom and when and where you put down wells in Iowa within the last 4 years?

A. If you will name some men for whom I put in wells I will tell you whether I did or not; I will not give a list of the names.

Q. 30. Can you give a list of names for whom you put down wells in Iowa for the last 4 years?

A. No.

Q. 31. Can you give any names for whom you have put down wells in Iowa for the last 4 years?

A. I could if I wished to.

Q. 32. Will you go on and do so, as far as you can?

A. No.

Q. 33. Why will you not; give all your reasons?

A. One reason is others would be sued.

Q. 34. Then, the only reason you have to give is that other parties might be sued?

A. That is the reason; I should not give the names of other parties for them to sue.

Q. 35. Is there no other reason?

A. That is the principal reason; there may be others.

Q. 36. Do you know of any other reason?

A. I have no other reason to give.

Q. 37. What did you mean by saying a few moments ago that you could not give a list of the names and then saying you could and refusing to give them?

A. I said I could not give a list of all; I did not say I could give a list of all.

Q. 38. You meant to say, then, that you could give a partial list?

A. Yes.

Q. 39. But you now refuse to give any list whatever?

722 A. If you will give me the name of the party I will tell you whether I put in a well for him or not; I will not give a list of the names.

Q. 40. Then I understand you to say that you will not give the names of any parties you put down wells for unless I first give the names to you?

A. Yes.

Q. 41. Who has assisted you in putting down wells during the time you were engaged in constructing and making wells in Iowa? Give the names and residences of parties as fully as you can.

A. D. W. Hovey, of Winthrop, in this county; James E. Brace, of Independence, Iowa; F. W. Hovey, of Independence, Iowa; James Litts, of same city; E. S. Hovey, of Swanton, Butler county, Iowa; and E. A. Hovey, of Tampico, Whiteside county, Ill.

Q. 42. Who composed the firm of Hovey Bros., who were engaged in constructing wells in Iowa during the last few years?

A. E. S. Hovey, E. A. Hovey, and George Hovey.

Q. 43. When did that partnership begin and when did it end?

A. It begun in the spring of '71, I believe; I could not tell the date; I think we ran about two years.

Q. 44. Are you the owner of the patent issued to Elias S. Hovey, dated February 20th, 1872, * * * No. 123,903, for the State of Iowa?

A. Yes, sir.

Q. 45. Have you been engaged in constructing wells in Iowa since 1872, according to the method pointed out in the patent referred to which you say you own for Iowa?

A. I have used that patent for cleaning out the bottom at all times.

Q. 46. Have you followed out the method pointed out in the said patent for constructing wells put down by you since 1872?

A. As far as cleaning out of the sand is concerned, I did. The top of the well I have bored with an auger down to the water in all instances.

723 Q. 47. Wherein has the method used by you in constructing wells since 1872 differed from the method pointed out in this patent?

A. I don't know that there is much difference. This don't state whether it was bored or driven. Mine was bored to the water and then the sand cleaned out according to the patent.

Q. 49. Do you know D. B. Cox, of Johnson Co., Iowa?

A. I do.

Q. 50. Do you remember of constructing his well or did you assist in doing it?

A. No, sir; I was not there. I was sick at the time, and not there.

Q. 51. Was any one doing it for you?

A. They were doing it for Hovey Bros.

Q. 52. Was you a member of that firm?

A. I was.

Q. 53. Did you assist in constructing a well for Andrew Fountain, Chas. B. Cox, M. J. Loan, J. R. Numerly, Henry Winans, Thos. Cox, John Mosford, Samuel Shellidy, and Milner Smith?

A. I don't think I was there when the Fountain well was put in; the Loan well was put in under my direction; suppose I was there at Numerly's well; I don't know but I was there at Winman's; I don't know that I was at Thos. Cox; I put in Mosford's, Shelliday's, and Smith's wells; these were all put in for Hovey Bros.; I was in the neighborhood at the time.

Q. 54. Do you know whether you did any driving in constructing the wells for the parties named?

A. We always bored, as far as we could; we done no driving above the water.

Q. 55. Did you drive or force the pipe below the water?

A. In some instances we did, a foot or so.

Q. 56 Will you swear positively that you did not force or drive the pipe more than a foot or so below the water in those cases?

724 A. I will swear positively that Winans' was not drove at all; it was put in a dug well and bricked up; there was three foot of water at the time; I don't remember of the others being drove any; they might have been.

Q. 57. In the case of Winman's, did you do any boring?

A. No, it did not need any; it was an open well.

Q. 58. Was there any point on the pipe put in the Winman well?

A. Yes, there was a point and screen on it.

Q. 59. What did you put on a point and screen for in the Winman well?

A. Oh, so it would not pump up frogs and sticks.

Q. 60. Will you swear that this pipe sat on the bottom of the well, and did not go into the bottom of the well at all?

A. I suppose it went into the bottom of the well.

Q. 61. How deep did it go into the bottom of the well?

A. Can't say.

Q. 62. How did it get into the bottom of the well?

A. It was put in.

Q. 63. How was it put in, by forcing or driving?

A. Neither forcing or driving; we set the pipe in the well.

Q. 64. How was it projected into the bottom of the well, if there was no forcing or driving and you done (no) boring?

A. In the first place, the well was dug out and bricked up and the pump was put in.

Q. 65. What makes you suppose that it went into the bottom of the well, if there was no driving, boring, or forcing of the pipe?

A. I meant to say that I suppose it went to the bottom of the well.

Q. 66. You ain't sure that it went to the bottom of the well?

A. I don't remember that it reached the bottom or not; if it did not, it did pretty near.

725 Q. 67. How deep was that well?

A. Don't remember.

Adjourned until 1.30 p. m. for dinner.

1.30.

Parties present, and resumed the taking of testimony.

George Hovey on the witness stand:

Q. 68. How long was the pipe?

A. I do not know.

Q. 69. How did you charge him for doing the job?

A. I don't remember; sometimes I done it by the foot and sometimes by the job.

Q. 70. Did you clean out the well pit?

A. I did not.

Q. 71. Was a pipe put down first, and *as and* pump attached?

A. Don't know.

Q. 72. What did you say was the reasons for his fixing it in this way?

A. When the river was high it overflows clear up to this house, almost to the top of the well.

Q. 73. Then you don't know whether this was driven into the bottom or not?

A. I don't know.

Q. 74. Have you put down wells for any persons where you have put them in the bottom of an open well?

A. Yes, sir.

Q. 75. For whom?

A. I put one in for Mr. Snow of this town—helped put in.

Q. 76. When?

A. Don't remember; a number of years ago.

Q. 77. Is that well still in existence?

A. It is.

726 Q. 78. Was there water in the bottom of the well when you commenced putting it in?

A. Yes, sir.

Q. 79. How deep was the water?

A. I should judge about 2 feet.

Q. 80. What was the bottom of this well—sand and gravel?

A. Yes; sand and gravel.

Q. 81. How deep in the bottom did you project your point and screen?

A. I presume the point went about 4 or 5 feet under water.

Q. 82. Did you bore any in making that well?

A. I did not.

Q. 83. How far up did the point and screen extend up on the pipe?

A. I should judge about a foot and a half.

Q. 84. Then the point and screen was about a foot and a half below the surface on the bottom of the well?

A. Yes.

Q. 85. Did you dig in the bottom of the well?

A. No; we used what we call the drive point.

Q. 86. Did you drive an instrument into the bottom of the well before you put in the point and screen?

A. No, sir; we put this point in.

Q. 87. How did you project it into the bottom of the well to the depth you say?

A. We drove it in with what we call a drive point or worked it down; I don't know that we drove it all the way.

Q. 88. What were the reasons for driving this point into the bottom of the well and putting on a point and screen?

A. He wanted me to—I mean by he Snow. His reasons were that the walls were rather poor and that it might cave in; it would not hurt the water. Further reasons, he said as the water rose and fell the sand worked in; that was the trouble.

727 Q. 90. Was the well in the habit of getting too low for water before you fixed it?

A. I don't know.

Q. 91. Did it work well after you fixed it?

A. Yes, sir.

Q. 92. Describe the kind of a rod or instrument you first drove into the bottom of the well.

A. It was a hollow tube; the perforations would extend up about 3 feet about $\frac{1}{8}$ of an inch in diameter: there was 4 rows of holes and a point with a bulge. It was substantially the same as figure 1 in the patent issued to Elias S. Hovey.

Q. 93. How far did you project that in the bottom of the well below the surface of the earth—in the bottom of the well?

A. About 4 foot.

Q. 94. Then the whole length of the projection into the bottom of the well—from the surface of the earth in the bottom of the well—*into the bottom of the well* was about 4 feet?

A. Yes, sir.

Q. 95. Well, after driving this or forcing it that far, what would you do then?

A. Put on the sand pump and pump out the fine particles.

Q. 96. Then what next did you do after pumping the fine particles out?

A. Take out the pump and pull out this tube and put in a tube of the same size with a point and screen over the perforations.

Q. 97. Would this be put to the same depth as the other tube?

A. Nearly; not quite.

Q. 98. How far up from the point would the perforations extend on the last pipe put in?

A. Well, from a foot and a half to 2 feet.

Q. 99. Then the upper perforations on the last pipe put in would be about 3 feet below the surface of the earth in the bottom of the well?

A. Generally about 2 feet, I should judge.

728 Q. 100. What is your object in getting your point and screen that low from the surface in the bottom of the well?

A. To always have plenty of water.

Q. 101. Do you always have plenty of water under such circumstances?

A. Never heard any complaint, but that they had plenty.

Q. 102. Then after a well has been constructed in this way there is no danger from walls caving in or the sand drifting in?

A. Well, if the walls cave in or the sand drifts in I don't think it hurts it.

Q. 103. You think if the walls did cave in under such circumstances it would not affect the flow of water through the pipe?

A. No; I don't think it would.

Q. 104. What is the first name of this man Snow that you put down this well for?

A. I don't know.

Q. 105. Was it put down since the date of this patent for which you are acting in this State?

A. Yes, sir.

Q. 106. Was that pipe air-tight from the perforations to the pump above and was it attached by an air-tight connection to the pump?

A. Yes, sir.

Q. 108. For what other persons have you put those tubes in the bottom of the wells that had been previously dug?

A. A man by the name of Lewis, in Hazelton township.

Q. 109. What was the matter with his well that caused him to have that done; do you know?

A. Because he could not dig it any deeper and he had not plenty of water.

Q. 110. Why could he not dig it any deeper?

A. On account of quicksand.

Q. 111. How much water was there in the well when you commenced to put the tube down?

A. About 1 foot.

729 Q. 112. Did you try to bore in it?

A. Yes, sir.

Q. 113. Could you succeed in making a hole in the quicksand by boring in it?

A. Yes, sir; I bored down to the rock.

Q. 114. Do you swear that after boring down through the quicksand and water to the rock you withdrew your auger and left a hole?

A. I withdrew the auger. I suppose it filled up with water and sand. It was not as solid as before.

Q. 115. Does quicksand when strained in the water become looser than it was before, or does it settle back to its original state in a few moments?

A. I wish to correct my answer to the last question. It was fine sand, but not quicksand. I suppose it settles back in every well I ever made. The sand is always looser.

Q. 116. You say this did not settle; how do you know it did not settle back after withdrawing the auger?

A. Because I dug it out to the rock.

Q. 117. What did you dig it out with?

A. With a small scoop made a purpose.

Q. 118. Did this small scoop go down with the auger and was it withdrawn with it?

A. No, sir.

Q. 119. How do you know that on withdrawing this scoop that the hole did not immediately fill up again?

A. I did not withdraw the scoop. I said I dug it out with a small scoop.

Q. 120. How do you know it did not fill up again after digging it out with a scoop?

A. Because I dug it to the rock and made a hole.

Q. 121. How do you know that after digging it to the rock with a scoop it did not fill up again?

A. Because we went to the creek and got coarse gravel and filled it up.

Q. 122. Could you see the hole in there when you got back?

A. Yes, sir.

730 Q. 123. How far could you see into the hole, and how large was it?

A. We could not see a great way. When we got the water out we could see down near the rock. It was about 10 inches across the top.

Q. 124. In the first place there was about a foot of water in the bottom of the well, and into this water and sand in the bottom of the well you bored a hole about 10 inches across, down to the rock, taking out the sand with the scoop; you then took out the water and could see down the hole to the rock; you then went to the creek and filled the hole with gravel. Is this true?

A. No; I never stated if so.

Q. 125. Now, go on and state what you did do.

A. I found about a foot of water in the well; then I bored down with the auger to the rock some two or three feet; then I had with me a ten-inch tube about 3 feet long; I set this in the bottom of the well and crowded it down as far as I could in the sand; then I scooped out some sand inside of that; that would let the tubing drop a little more; then I dug the sand out again with the scoop and kept on working away until it reached the rock; then we put gravel in the tube and gradually worked it out; we would put in a little gravel and then work the tube up a little, and continue this gradually until we worked it out, filling the hole with gravel to the surface of the earth in the bottom of the well.

Q. 126. Previous to this did you get the water out of the well?

A. We got most of the water out before this.

Q. 127. Now, what did you do next?

A. We put in the drive point down into this gravel and cleaned out the fine stuff with the sand pump.

Q. 128. How did you get this point down in this gravel?

A. We just put it down. Its heft almost carried it down.

731 Q. 129. Then the tube with the drive point attached to it went through this 3 feet of gravel of its own weight—without any forcing or driving?

A. Yes; without any driving. I don't think we forced it.

Q. 130. What was the size of that gravel—was it coarse or fine gravel?

A. Coarse gravel—mixed, fine and coarse.

Q. 131. Was there a screen attached to the point you put in this well?

A. There was.

Q. 132. How far was the upper perforation from the bottom of the well after you got through?

A. Not much over a foot, I think.

Q. 133. What did you do with this sand you took out with the scoop out of this ten-inch tube?

A. We took it up out of the well.

Q. 134. What was your object in getting the upper perforations so far below the surface of the ground in the bottom of the well?

A. So as to get more water. When it gets down to the top hole in the screen you have got to stop pumping and wait for the water to run in. The lower you get the top of your screen in such wells the more water you will get.

Q. 135. Then I understand you to say when you drive it down a certain distance below the surface of the ground in the bottom of the well you don't have to wait for the water to cover the upper perforations in the pipe, so as to prevent its sucking air?

A. If the gravel is coarse and the water runs through it freely you will never have to wait, but if the gravel is fine, almost quicksand, as you call it, it may pump down and take air.

Q. 136. Who else in this country have you put down wells for in this way, by driving the pipe down in the bottom of an open well?

A. I don't remember.

Q 137. How many wells have you put down in Independence since May 9th, 1871?

A. I do not know, I am sure.

732 Q. 138. Have you put down 100?

A. I don't think I have.

Q. 139. Have you put down 50?

A. I think not.

Q. 140. Have you put down 25?

A. I can't say.

Q. 141. Have you put down 1?

A. Yes.

Q. 142. Have you put down 2?

A. Yes; I have put down 2 this spring.

Q. 143. Have you put down 3?

A. Yes.

Q. 144. Have you put down as many as 20?

A. I presume I have.

Q. 145. What is the formation of the bottom of the wells you have put down here composed of principally?

A. Sand.

Q. 146. Is not the sand mixed with gravel?

A. Yes; fine gravel.

Q. 147. Now, sir, will you swear that in every well you have constructed in Independence you bored down to the water?

A. If it is not an open or dry well, I will.

Q. 148. How far would you drive your point into the water-bearing stratum after coming to the water?

A. We always bore in as far as we can and then drive maybe 4 or 5 feet.

Q. 149. Have you not driven as much as 8 feet from where you quit boring?

A. I might; can't remember; we don't generally try to get that depth.

Q. 150. What makes you do any driving at all?

A. Because we want to get a little deeper.

Q. 151. Why don't you bore all the way down?

A. We do in a great many instances.

Q. 152. Why don't you bore all the way down always?

A. Because we take a notion to drive.

Q. 153. That is your only reason?

A. I don't know of any other reason.

733 Q. 154. Are you able to bore a hole in the water that will remain a hole in the gravel and sand formation?

A. Not remain, but it will loosen it, so we can put something in easier.

Q. 155. Did you ever bore a hole with your auger in a sand and gravel formation in the water-bearing stratum and without your auger and then measure to see how deep the hole was?

A. No.

Q. 156. After boring down to the water-bearing stratum and in some cases boring into it some distance, you withdraw the auger and insert a hollow tube, with an end like figure one (1) referred to in patent issued to Elias S. Hovey, No. 123,903, and after forcing or driving that from 4 to 6 feet in the water-bearing stratum you attach a sand pump, and, after pumping out the fine particles where the perforations are, you withdraw the same and insert in lieu thereof a pipe of the same size with a point and section pipe as is shown in figure "2" of said patent, except it is all covered with wire gauze screen; this is true, is it not?

A. No.

Q. 157. How far into the water-bearing stratum do you drive what you call a drive point after you get through boring?

A. Sometimes not any; sometimes a foot or two.

734 Q. 158. How far do you force or chuck it down into the water-bearing stratum after you get through boring?

A. Sometimes I drive it a little after I have gone as far as I bored it. I never chuck it down.

Q. 159. Do you ever force it?

A. I have sometimes, but not above the water-bearing stratum.

Q. 160. How far do you force it below the water-bearing stratum?

A. From 3 to 5 feet.

Q. 161. Have you not sometimes bored 10 feet into the water-bearing stratum and then put in the place where the auger was taken out a drive point attached to a pipe leading to the surface, and by its own weight, and by forcing it sink it as far as the auger went, and in some cases farther.

A. I do not remember.

Q. 162. How far is the farthest you have bored into the water-bearing stratum?

A. I have bored in 8 feet one place.

Q. 163. How far have you bored into the water-bearing stratum and made a well?

A. I could not state. We generally bore 3, 4, or 5 feet; sometimes more.

Q. 164. How far does the water-bearing stratum lay below the surface of the ground in this place usually.

A. Near my place it lays about 19 feet from the surface.

Q. 165. How long have you made the pipes for most of the wells in this town?

A. I don't remember.

Q. 166. After withdrawing this tube, to which is attached the drive point referred to by you, you insert in lieu thereof a point with a screen attached, as appears in Figure "2" in patent issued to Elias S. Hovey, number 123,903, do you not?

A. Yes.

Q. 167. You then in all cases attach this tube to a pump by an air-tight connection above, do you not?

735 A. Yes.

Q. 168. How large an auger do you use in boring these holes generally?

A. About 3 inches; sometimes 2½.

Q. 169. After attaching the pump is not the earth packed round the pipe or filled around it to make it firm and steady?

A. No, sir.

Q. 170. You swear that dirt is never packed around the pipe?

A. We never did.

Q. 171. Did you ever have it done?

A. No; I never gave such instructions.

Q. 172. What is that steadies the pipe when you screw on the pump, standing on this hole?

A. The pump is screwed onto the platform, and then a brace is put from the platform to the pump.

Q. 173. There is no dirt ever thrown around this tube to keep the surface water or dirt from falling in, is there?

A. No.

Q. 174. Why is it not done?

A. Because when we put our box about four feet down and one foot out, then we take this dirt that has been taken out and put it up against the box as high as the platform. It is rounded so high that the surface water runs off. This boxing is put in there to put the cylinder of the pump between the front and to allow the water to run back to the cylinder and to escape at the top of the cylinder and run back into the hole.

Adjourned until Wednesday, Aug. 6, 1879, at 9 o'clock a. m.

WEDNESDAY, *August* 6, 1879—9 o'clock a. m.

Resumed the taking of the testimony at the office of Frank Jennings.

D. Q. 175. In the well you say you put in for Lewis why did you put down the ten-inch tube, and as you put it down scoop out the sand inside so as to form a hole, if there was no quicksand in the bottom?

A. The sand was fine that was in there, and we wanted to get a coarser article next the pipe so that the water would run more freely.

Q. 176. Was you not obliged to do this so as to form a hole for the reception of the gravel?

736 A. Well, that was one mode of doing it. I don't know that it was necessary. It might have been made some other way.

Q. 177. Could you have formed a hole for the gravel without doing this?

A. I could.

Q. 178. How?

A. By curbing with boards or planks.

Q. 179. Then, in order to form that hole there, you would either have to sink the ten-inch tube, as you stated, or curb it up?

A. Yes.

Q. 180. Could you have bored a hole so as to admit the gravel without putting this ten-inch tubing down?

A. I think not without curbing some of it.

Q. 181. Can you make a small hole in the sand in the water-bearing strata that will remain a hole any length of time any better than you can a large one?

A. Yes; it won't fill up with sand as quick as it will fill up with water.

Q. 182. Is it not true that a hole bored two inches and a half in size into the sand and gravel in the water-bearing strata will fill up quicker than a ten-inch hole bored in the same place?

A. It will with water. The sand and gravel will never fill in so tight as in a large hole.

Q. 183. Won't it fill in just as quick in one as in the other?

A. Yes.

Q. 184. Why did you not bore this hole in the bottom of the Lewis well instead of forcing in the ten-inch tube and scooping out as you went down?

A. On account of the supply of water.

Q. 185. Was it not on account of the bored hole filling up with sand about as fast as you made it?

A. It was not.

Q. 186. It would not fill up with sand about as fast as you made it, would it?

737 A. I suppose it would. But what I told you yesterday, if it was only a little way to the rock it would not give a supply of water.

Q. 187. Then I understand you to say that if you had have bored this down to the rock with the same sized auger as the tube you used, and filled in the hole thus made with gravel, that it would not give as good a supply of water as the way you did make it?

A. If I could have got the gravel in it would have been the same.

Q. 188. Why could you not have got the gravel in just as good?

A. Because the sand would have run in as soon as I got the hole bored.

Q. 189. How far into a bed of fine and coarse gravel would the weight of the tube used in the Lewis well shod with a point force itself without any assistance?

A. I think it would force itself to the rock.

Q. 190. Then just the weight of the rod would force itself through fine and coarse gravel three feet, would it, without any assistance?

A. I think in that well it would have went further than that.

Q. 191. About how long was that tubing?

A. I don't remember; I suppose about 20 feet; I won't be certain.

Q. 192. How far would such a tubing force itself by its own weight if this had been sand and gravel mixed together?

A. I suppose it would go three or four feet.

Q. 193. What is your object in having a sharp point at the end of this tubing?

A. To drive it in easier, or it will go in easier.

Q. 194. Would it not answer your purpose just as well to have the end square and closed up?

A. No.

Q. 195. Why not?

A. It would not be according to my patent. One thing——

738 Q. 196. What is the object of having the sharp point on the end of the tube, as shown in figure No. 2, referred to in the patent issued to Elias S. Hovey and under which you claim to be operating?

A. It is to stop up the hole in the bottom of the screen; it is made sharp; it is sharpened so as to go down easier and true.

Q. 197. What is the sharp point in figure one, referred to in the patent used by your mode—of wood, iron, or steel?

A. I suppose iron.

Q. 198. Why is that point made of iron and the other of wood?

A. The first one, No. 1, we sometimes drive; the other, No. 2, we don't drive generally; it is not made to drive.

Q. 199. Why do you sharpen the point if it is not made to drive or force into the ground?

A. So as to go down true in the hole made by figure one or where it is bored either.

Q. 200. Is it not made for the purpose of making it go down easier?

A. I think it will go down easier.

Q. 201. Then a pipe with such a point on it made of iron and of an inch and a quarter in diameter and twenty or thirty feet in length will, by its own weight and without any forcing, penetrate into a stratum of water-bearing sand and gravel about four feet?

A. If it has been bored I think it will.

Q. 202. Did you not say that in the Lewis well, where there was no boring, it penetrated three feet to the rock through the sand and gravel?

A. I thought it did; it was because the ground was loose.

Q. 203. Suppose that you bored down to the water-bearing stratum and took a pipe shod with an iron point, as is shown in figure number 1 in said patent, and is forced or driven into the bottom of such hole, from three to eight feet, and the fine sand pumped out in the vicinity of the tube at the bottom and then withdrawn and a
739 pipe shod with a point, as in figure number 2, inserted in lieu thereof, will not said pipe so inserted go, by its own weight, to the bottom of the hole made by the first pipe?

A. I don't think it will; it might in some cases, but not in all.

Q. 204. Then you sometimes have to force the second pipe you put in?

A. Some.

Q. 205. If you would bore a hole three inches in diameter and then place in such hole an inch-and-a-quarter pipe, with perforations as is shown in figure number 1 in your patent, and without forcing it in any way but by its own weight or otherwise into the earth, and then attaching a sand pump thereto, could you pump out the fine sand in the vicinity of such hole bored by you?

A. Not without some water.

Q. 206. Suppose the hole was full of water, could you do it?

A. Yes, sir.

Q. 207. Then, in order to pump out the fine particles in the vicinity of the pipe, it is not necessary that it should come in contact with the earth or sand?

A. It is necessary to be near it.

Q. 208. How near it?

A. So that when you exhaust the water in the hole it will run the sand and water right over.

Q. 209. Would not the operation of the sand pump necessarily cause the settling round the tube the earth and sand?

A. Yes.

Q. 210. If the holes you bore remain holes in the water-bearing stratum and no earth or sand settles around the tube, could you remove the fine particles from the vicinity of the tube with a sand pump?

A. If it did not settle around the tube I could not remove it; I never saw a place where it would not settle around the pipe where the perforations are if it was sand or gravel.

740 Q. 211. Why do you always place the tube next the wire screen attached so that the upper perforations in it shall be a foot or two below the surface of the earth in the bottom of the well bored by you, or from the surface of the earth in the bottom of the well where it is placed in the open well and forced or driven into the bottom of such well?

A. We want to get the depth of the water; if it was not below the water we could not draw, it would take air; an open well we don't always drive it below the surface of the earth in the bottom of the well; sometimes the perforations are not under the earth where we drive in the bottom of an open well where there is plenty of water.

Q. 212. In the case last referred to, where you drive part way into the bottom and some of the perforations are above the surface of the ground, do you use a sand pump?

A. I put my drive point under the surface of the earth in the bottom of the well, then I attach a sand pump and pump out what sand is necessary, then withdraw the tube and put in my screen, but not to that depth always.

Q. 213. Why do you always have the upper perforations in the pipe to which the wire screen is attached below the surface of the ground in the bottom of the holes bored by you from one to two feet?

A. I put it in to get the depth of water I need. We sometimes go four or five feet from the top of the water to the bottom of the screen; that is generally our distance, where there is a good flow of water.

Q. 214. If the upper perforations of your pipe was left above the surface of the earth in the bottom of the hole and the pump was operated until the water was lowered in such hole to a point below the upper perforations, the air would get in, would it not, and the pump cease to lift water?

A. Yes.

Q. 215. If the tube was then forced or driven further into
741 the water-bearing stratum until the upper perforations in it
was a foot or two below the surface of the ground in the bottom of said hole in the water-bearing strata, the difficulty would be avoided, would it not?

A. Not every time; if it is driven so that the water will not exhaust so as to take air in the upper hole of the screen then the difficulty would be overcome; if it don't take air it is all right.

Q. 216. If this tube was then forced or driven into the bottom of the hole and into the water-bearing stratum and until the upper perforations were some distance below the surface of the earth in the bottom of such hole and below the water line of the water-bearing stratum, this difficulty would be overcome, would it not?

A. It would, if there is a good flow of water.

Q. 217. In that case you could not exhaust the water by the operation of the pump until you had exhausted the supply of water in the water-bearing stratum?

A. Not until you had exhausted it to the top hole in the screen.

Q. 218. In order to do that you would have to lower the whole surface of the water in the water-bearing stratum into which it was projected?

A. In the immediate vicinity of the pipe, you would.

Q. 219. What do you mean by the immediate vicinity of the pipe?

A. I mean right at the pipe until it takes air at the upper hole of the screen.

Q. 220. Do you mean that all the water you have to depend upon is the water in the pipe or right around the pipe?

A. What we want to depend upon is the water deep enough so that it will not take air at the top of the screen. I don't know where it comes from.

Q. 221. Under such circumstances, when the pump handle is worked and a vacuum created in the pipe, the water rushes into
the tube to fill such vacuum and a vacuum is thereby created
742 in the pipe below, the water rushes in from the surrounding
stratum to fill such vacuum thus made, does it not?

A. I think the water rises to its level. I don't know anything about the vacuum. The suction will draw the water if it is there.

Q. 222. From where will the suction draw the water?

A. From the earth.

Q. 223. How is the suction produced?

A. By making the suction barrel air-tight and priming with water and pumping. That will draw the water from below.

Q. 224. How does it draw the water from below?

A. By pumping.

Q. 225. Does it draw the water from the hole you bored or from the water-bearing stratum?

A. It draws what water there is in the pipe and from the water-bearing stratum both.

Q. 226. Then the water is delivered directly from the water-bearing stratum into this tube?

A. Oh, yes.

Q. 227. The water is not, then, first delivered to a reservoir and from there passes into the pipe?

A. It is first delivered from the sand that is cleaned out by our patent in the water-bearing strata.

Q. 228. Does or does not the water run into the tube from a reservoir?

A. We call that a reservoir where we clean out the fine sand.

Q. 229. Will you swear that there is a reservoir at the end of these pipes, where you simply clean out the fine particles of sand?

A. I will swear that it is loose there. It is not tight as it was before the fine sand is pumped out.

Q. 230. In such cases do*es* not the coarser particles settle down in the place of the fine that has been removed round the pipe?

A. Yes.

Q. 231. Then there is no open space round the pipe?

743 A. I don't suppose there is any open space, but what there is is filled with water and gravel.

Q. 232. Is there any space round the pipe that is not filled with sand or gravel?

A. In some places, I think, there is and others there is not.

Q. 233. Will you swear that there are any instances where these pipes have been put down in a water-bearing stratum of sand and gravel and a sand pump attached and the fine particles pumped out that an open space is left around the pipe in which there is neither sand nor gravel?

A. I don't think there is. I have never seen it, but I believe it is so.

Q. 234. Explain how that could be.

A. By pumping out the fine sand from the coarse, there not being much coarse sand in it, and by pumping out several buckets of sand our drive point in there becomes perfectly loose. By putting down our pipe and screen attached to it to make the well we don't have to force it and it is loose then. The appearance is that there is nothing that touches the sides. This state of facts does not appear in all cases, but does in many.

Q. 235. Then sometimes the pipe is tight and don't seem to be loose?

A. Sometimes you will feel something touch it at the screen and other times not.

Q. 236. Did you not state this morning that when the fine particles were pumped out from the vicinity of the pipe the coarse particles settled down in their places?

A. Yes; I say so, if there is any.

Q. 237. Then how could there be a reservoir left in the vicinity of the pipe?

A. By pumping out the fine, if there is not much coarse and the walls do not cave in, leaves a space.

Q. 238. Do you state that it is possible to make a small hole in a sand and gravel formation in the water by one instrument, and then, withdrawing that instrument and inserting another in
744 its place, that it will remain a hole any length of time, and especially after it has been loosened by the removal of the fine particles?

A. The way we pump it out I think it would remain after pumping it out.

Adjourned until 2 o'clock p. m. for dinner.

TWO O'CLOCK P. M.

Resumed the taking of testimony, GEO. HOVEY on the stand:

Q. 239. Would this be so in all cases?

A. I think it would not; it would be according to the formation of the gravel.

Q. 240. Have you put down wells according to this patent, under which you say you are operating in Linn Co., in this State?

A. Yes.

Q. 241. Tell the names of some of the parties for whom you have put down wells in Linn Co.

A. I can't remember the names, to save me.

Q. 242. At what places in Linn Co. did you put them down?

A. Near Bartram.

Q. 243. How many have you put down in Linn Co.?

A. I have put down two there; maybe more.

Q. 244. Have you ever put down any in Muscatine Co.?

A. I have.

Q. 245. Tell about the number, as near as you can, how many in Muscatine county.

A. I have no way to tell.

Q. 246. Have you put down a great number there?

A. We put down a good many.

Q. 247. Did you and the Hovey Bros. put down 100?

A. I don't know.

Q. 248. Did you put down 200?

A. I don't know.

745 Q. 249. Did you put down 300?

A. I don't know; I don't think we did.

Q. 250. How many, in your judgment, have you put down, as near as you can estimate it?

A. I don't know; I have nothing to reckon from.

Q. 251. Do you think you put down 300?

A. I don't think we did, but I could not say.

Q. 252. Have you put them down in Fayette county; and, if so, how many, as near as you can tell?

A. I know of putting down two; I don't remember of any others.

Q. 253. Who was yours put down for?

A. I don't remember the names.

Q. 254. Where did they live in Fayette Co.?

A. Near the Bremer Co. line.

Q. 255. In what township?

A. I don't know what the township was.

Q. 256. Did you ever put down any wells for either of the following-named persons: William Thorman, J. H. Miller, Wm. Meikle, Geo. E. Chaplin, or Geo. W. Brown?

A. No, sir.

Q. 257. What years did you say you and the Hovey Bros. were in partnership together constructing these wells?

A. We commenced in the spring of 1871, and worked about two years together.

Q. 258. What time in the spring of 1871?

A. I think about the 1st of April; I could not state.

Q. 259. Where did your partners then and now reside?

A. E. S. Hovey, p. o. is Swanton, Butler Co., Ia.; E. A. Hovey lives at Tampico, Whiteside Co., Ills.

Q. 260. Was your partnership for the purpose of constructing wells?

A. Yes.

Q. 261. Who has charge of the books and papers of the partnership?

A. E. A. Hovey.

746 Q. Since when did he have charge of them?

A. I think since the fire here, in 1874.

Q. 263. Have you brought any books or papers with you in obedience to the subpœna that was served on you yesterday?

A. I have not.

Q. 264. Why did you not bring them?

A. I did not wish to bring a list of the names of the men I put in wells for.

Q. 265. You still refuse to bring any books and papers that you have connected with the construction of wells and of making these wells?

A. If any good judge of law will say that I have got to produce them under the circumstances I will produce what I have got.

Q. 266. Consult your solicitor and then tell me whether you are ready to obey the subpœna by producing the books and papers called for by it?

Defendant answers: I am not willing to give a list of the names of persons for whom I have put in wells in Iowa and when and where. If I should attempt to do so it would only be a very imperfect list, as I have not the accounts in a large number of cases. I could not give only a few names. There might be mistakes in them. I have no papers nor books relating to my business of making wells.

Q. 267. Have you consulted with your solicitor since answering the last interrogatory, and are you prepared to produce the books and papers you have?

A. I did consult my solicitor, and am unwilling to produce the books and papers I have.

The witness here refuses to produce any books or papers in obedience to the subpœna and after their being demanded of him by the solicitor for the complainants.

747 Q. 268. What books and papers have you in your possession or under your control showing the names of persons for whom you have put down wells or when or where you have put them down?

A. I think I have two or three small little books that have some names in them that I have put in wells for the last two years; that is all that I have in my possession.

Q. 269. Describe those books.

A. One is a small book, containing about 100 pages; it may be 100 leaves or 100 pages; I could not say; it may be 5 or 6 inches long and, I should say, about 4 inches wide; the other is an ordinary pocket-book, containing probably some 7 or 8 or 10 leaves.

Q. 270. Are they in your possession, and were they yesterday morning, and have they been ever since?

A. Yes.

Q. 271. How many persons does there appear on these that you have put down wells for in Iowa?

A. I don't know. I never counted them. I never thought to count them.

Q. 272. Commencing with the last well you put down and going back in the order of time, give the names of persons for whom you have put down wells in Iowa and when and where you put them down, as near as you can.

A. I should rather fetch my books than take that course. If he will name any persons for whom I put in wells I will tell him.

Q. 273. Do you refuse to answer the question any other way?

A. I don't suppose it would be any more satisfactory if I should answer it in any other way.

Q. 274. Do you still refuse to answer interrogatory 172?

A. My reasons are I have promised not to give the names of those I put in wells for.

Q. 275. Do you still refuse to answer that interrogatory?

A. I will say that I will not give the names of the persons for whom I put in wells unless the court decides I must.

748 Q. 276. Just prior to answering this last interrogatory did you consult your solicitor as to what answer you should make to such interrogatory?

A. I did.

Q. 277. And after full deliberation and consultation with your solicitor you now unqualifiedly refuse to obey the subpœna served on you to produce said books and refuse to answer interrogatory No. 172?

A. Yes.

Q. 278. Who have you promised that you would not give a list of the names of persons for whom you put down wells?

A. The persons for whom I have put in wells for in this county and other places.

Q. 279 Give the names of these persons to whom you made this promise?

A. I won't give them without court decides I am obliged to.

Q. 280. Who is the person for whom you put down the last well?

—. I don't know his name.

Q. 281. State the exact locality of the well you last put down and when you put it down.

A. I can't tell on what lot; it was above the railroad track; it was this spring.

Q. 282. Have you got any books and papers from which you could tell for whom you put down your last well?

A. I have.

Q. 283. Will you examine them and then give the names of the persons?

A. No.

Q. 284. Why not?

A. I don't want to furnish the names of any one for you to sue; it makes too much trouble; I think I would be mobbed, and ought to be.

Q. 285. Who assisted you in putting down that well?

A. I put it down myself; I don't know but the man dug the hole in the morning; I think he did.

749 Q. 286. How far down did he dig and how big a hole did he dig?

A. Three feet square and four feet deep.

Q. 287. How far was it from the bottom of that hole to water?

A. I don't know; the well was from twenty-one to twenty-two feet.

Q. 288. Now state how you got down to water.

A. I bored down and took the dirt out; part of the way was clay.

Q. 289. How far did you bore?

A. Four feet in the water.

Q. 290. What kind of soil was there after you reached water?

A. Good gravel for the first 2 feet in the water and the last was clay.

Q. 291. How far did you project the pipe below the surface of the water in the well?

A. Not but a very little over 4 feet; may have been an inch or two more—over two feet.

Q. 292. Did the hole in the water-bearing stratum remain a hole after you pulled your auger out?

A. I did not examine it.

Q. 293. What was the whole length of your pipe in that well?—I mean to the surface of the ground.

A. I think it was about 21 or 22 feet up to the base.

Q. 294. Did you use a sand pump in this well?

A. I did.

Q. 295. How did you get the drive point into the ground as far as it went?

A. I drove it about 2 feet into the water. The drive point went into the water about 2 feet itself and I drove it about 2 feet further.

Q. 296. Do you mean that you drove it about two feet further than the auger went?

A. No, sir.

Q. 297. Then you pretend to say that after striking the water
there was gravel for two feet and below that was clay, and
750 that after boring down and withdrawing the auger a hole
was left in the gravel in the water to the depth of 2 feet?

A. After coming to the water the first two feet was good gravel, the next two feet was fine sand, and then I struck clay and took the augur out. I then put in the drive point; it went about two feet and I drove it about two feet.

Q. 298. Its own weight would carry it through the first two feet of gravel; and it was after that you had to drive it, was it?

A. Yes.

Q. 299. About what would be the weight of this pipe, of that length, pressing on the sharp point?

A. Twenty feet of it would weigh about 30 pounds?

Q. 300. What is your manner of inserting this drive pipe in the first instance? Is it by dropping it into the hole?

A. Yes; we let it go and drop it into the hole.

Q. 301. It falls, then, with considerable force on the sand and gravel in the bottom of the hole, does it?

A. It might; yes.

Q. 302. Do you let it drop from the top of the hole?

A. We just enter it a little ways in the hole and then drop it.

Q. 303. Did you measure to see how far it was from the surface of the ground to the surface of the water in the well?

A. I did; from the bottom of the hole 3 feet square.

Q. 304. Did you draw out any sand or gravel to amount to anything with the auger after boring into the water?

A. For the first two feet I did; I drew out sand.

Q. 305. I thought you said the first two feet was gravel?

A. I did say so.

Q. 306. Then you did not draw out any of the gravel for the first two feet?

A. I did draw sand and gravel for the first two feet.

751 The witness says that he wants to correct his answer to interrogatory 304 by saying: I drew out sand and gravel.

Q. 307. Then I understand you to say that instead of the first two feet being gravel that it was sand and gravel?

A. Yes.

Q. 308. How far will the falling of the drive point, after you have entered it into the hole and from the height you usually let it fall, force itself into the sand and gravel in the water-bearing stratum?

A. Sometimes as far as we bore, and sometimes not.

Q. 309. How far did it go in this instance that you speak of?

A. I did not measure it, but I thought it went about 2 feet.

Q. 310. How far will it go, when you have not bored into the water-bearing stratum, of its own weight where there is a sand and gravel formation?

A. Some places it would not go more than an inch or two, and some places it might go a foot or two.

Q. 311. Why did you not bore all the way down in this last well you made?

A. I did bore it to the clay.

Q. 312. What did you drive for, then, if you did not go below the point where you bored?

A. I drove to get down; it was fine sand.

Q. 313. Then you could not bore a hole down to the clay that would stay long enough to let your rod down without driving?

A. Not at this place.

Q. 314. What was the trouble; did it fill up?

A. The fine sand filled it up.

Q. 315. Would it not fill up with coarser sand or gavel?

A. It may fill in a little, but not so much. It will not be so tight.

Q. 316. Can you bore a hole that will stay a hole any length of time in coarse sand and gavel in a water-bearing stratum?

752 A. Not but what it will fill some.

Q. 317. Will you swear that you ever bored a hole in a water-bearing stratum composed only of sand and gravel and withdrew the auger that would remain a hole for a minute afterwards?

A. I don't know as I ever did.

Q. 318. Did you ever put a well point in an open well for Thomas Hanson or Alden Spars, of Fayette Co., Iowa?

A. I did not.

Q. 319. Since what years have you been putting down wells by boring to the water-bearing stratum; since or before the date of the issue of the patent to Elias S. Hovey, February 20, 1872?

A. I have always bored since the Hovey Bros. put down wells.

Q. 320. Did you do all the boring on the last well you constructed without any assistance from any one?

A. I did.

Q. 321. Solicitor for complainants here submits to witness affidavit made by Geo. Hovey, and asks him if that is his signature. He answers it is. Affidavit affixed in evidence and marked Exhibit "G."

Q. 322. What are the essential features of the patent under which you claim to be acting that was issued to Elias S. Hovey?

A. The process of cleaning out the water bed, as is stated in the patent.

753 Q. 323. Then the novelty of the patent consists in extracting the fine sand being in the immediate vicinity surrounding the tube at the perforated end?

A. That is a part of it; the balance is cleaning out the fine sand so that the water will have free access to the tube.

Q. 324. Is that all?

A. I claim all there is in the patent for cleaning out the water bed.

Q. 325. Do you claim that your patent covers a point and screen?

A. I claim the patent covers the use of a point and screen, as stated in the patent.

Q. 326. Does your patent cover a point with a perforated end or screen attached to such point?

A. It covers what is in No. 2 in the patent; I mean the use of it.

Q. 327. Do you claim that your patent covers a perforated tube end for wells, whether open or covered with gauze?

A. As is stated for cleaning out and for use, as stated in the patent.

Q. 328. You claim, then, nothing but what is described in the patent—of first driving into the water-bearing stratum the figure No. 1, then attaching a sand pump and pumping out the fine sand or particles in the immediate vicinity of such tube where the perforations are made, then withdrawing the same and inserting in lieu thereof a section of pipe or tube, as shown in figure No. 2, except that it is fully covered with gauze.

A. I claim it just as it reads in the patent—after we get into the water, from the water down.

Q. 329. Then from the surface of the water down in the water-bearing stratum you have constructed the wells made by you in Buchanan county, Ia., as is described in the patent issued to Elias S. Hovey, and under which you claim to be operating?

A. I constructed and cleaned it out after that manner down to the bottom, except that I bore, and that ain't mentioned in the patent.

754 Q. 330. Have you constructed the wells put down by you in Buchanan county from the surface of the water down as is described and set forth in patent No. 123,903 and under which you claim to be acting?

A. Yes; except what I bore.

Q. 331. Do you not, in some instances, bore into the water-bearing stratum where the gravel is and sand is loose and easily penetrated?

A. I always bore into the water-bearing stratum.

Q. 332. What advantage is there in boring into the water-bearing strata, where the sand and gravel is loose and easily penetrated, when the hole immediately fills up on withdrawing the auger?

A. We don't find many such places; we bore so that we can take the pipe out easier; it makes it easier to make the well.

Q. 333. How does it make it easier to make the well?

A. By removing the dirt up out of the hole.

Q. 334. When you bore those holes they fill up when you withdraw the auger, do they not; and by boring you are able to bore or drive the pipe easier into the earth?

A. Never fill above the water line; it may fill a little below, but never tight.

Q. 335. The hole you bored in the last well you say you put down you say you bored through to the clay, which was about 4 feet from the surface of the water, and you then withdrew the auger and let the drive point fall from near the surface into the hole thus made, and that then you had to drive it two feet and until you came to the clay. In that case the hole must have filled up more than a little after you withdrew the auger, did it not?

A. Yes; with fine sand near to the bottom.

Q. 336. You may frequently find fine sand in the water-bearing stratum, do you not?

A. So fine that we can't make a well often.

Q. 337. Is the sand generally fine in the water-bearing stratum in Iowa?

755 A. Some places it is and some places it is not; I can't say that it is generally so; it is fine in places and coarse in places.

Q. 338. Some places it is coarse gravel, is it not?

A. I never see what you call very coarse gravel except in one place.

Q. 339. It is generally sand and gravel intermixed, is it not?

A. Yes; sometimes there is sand in the gravel.

Q. 340. Is it generally sand and gravel intermixed?

A. No.

Q. 341. What is it?

A. Sand.

Q. 342. Then you generally have to do driving in constructing your wells?

A. We may the last foot or two, but not in the upper part of the water strata.

Q. 343. The falling of the drive point causes it to penetrate the first part of the water-bearing stratum, does it not?

A. It does as far as we bore.

Here the counsel closes his examination of the defendant, reserving the right, however, when the court shall have passed upon the question of the witness' refusal to produce books and papers and also his refusal to answer questions, to proceed further with such examination.

Adjourned until Thursday morning, August 7th, 1879, at 9 o'clock a. m.

756 THURSDAY MORNING, *August 7th*—9 o'clock a. m.

Resumed the taking of testimony at the office of Frank Jennings.

GEORGE HOVEY cross-examined by counsel for defence:

X Q. 1. In your direct examination you state you have made a great many wells in Iowa; will you now state fully the method you used in making such wells?

A. I first commenced by digging a hole for the box 3 feet square, 4 feet deep; I then bore down with a three-inch auger into the earth and into the water-bearing strata as far as I can, taking the dirt up and out. I then put my drive-point—that is, called drive point—on a rod and insert it into the hole, such as No. one (1) in the patent. I then attach a sand pump and pump out all the fine particles out of the sand near the point; then withdraw that rod and point, attach a screen to a rod suitable length for the building a well, and put this down into the water nearly as far as the first point went down; then I put on a sand pump and pump until the rile is pumped out; then take off the sand pump and attach a common anti-freezing pump.

X Q. 2. Is the rod that you attach the points to a hollow or a solid rod?

A. Hollow; generally an 1¼ inch in diameter inside; common gas pipe.

X Q. 3. Do you do anything with this hole 3 feet square and 4 feet deep; if so, what?

A. We make a box to put into this hole, to put the base of the pump on. It is made so that the pump will not freeze in the winter, by leaving the plug in the vent hole above the suction barrel.

X Q. 4. Is the top of this box covered? If so, state how it is done, and why.

A. We cover it with two tiers of boards or thicknesses of boards, so that they will break joints; that is to keep the frost out in 757 winter. The base of the pump is fastened to those boards, also the brace.

X Q. 5. Does the manner of fastening the pump keep it in place without putting any earth around the pipe in the hole you have bored?

A. Yes.

X Q. 6. How long have you been making wells in this way?

A. Since January, 1871. I correct that and say since April, 1871.

X Q. 7. Have you had occasion to repair any of these wells after they had stood for some years? If so, state as to how you found them in regard to the earth being packed around the tube in the hole bored by you.

A. I have had occasion to repair. The leather often wears in the suction barrel, so that it has to be repaired. I repaired that one for a person in this town this spring; that has been put in three or four years; that the sand was not to the pipe until it reached the water. I dropped down several gravel stones into the hole beside the pipe and could hear the splash as it went into the water below; that must be down to the water-bearing strata. Other wells I have fixed over that no sand could be seen in this hole that was bored out below the suction; some I have seen that was filled with sand to appearances. I have taken out the pipe and screen of several wells that had a hole in the screen or pipe below the water line, that the rust had eat a hole through to appearance. When I pulled these — up easy; other wells that I supposed or knew had been driven down, I have pulled those and they pulled hard always.

X Q. 8. In those that the sand appeared to be filled in the hole around the pipe how was it as to being packed there?

A. They were not packed tight; I should not think it was packed at all; it was just loose sand.

X Q. 9. In the patent under which you are claiming to act 758 state what parts of the same you consider the material ones used by you in making your wells.

A. It is for cleaning out the fine particles from the sand in the vicinity of where the screen is put into it.

X Q. 10. Is there any other part of the process used by you that is covered by your patent? If so, state what they are.

A. We claim the right to use the tools in figures one and two as is set forth in the patent.

X Q. 11. Have you examined the patent under which the complainants claim and which they make the base of this action?

A. I have.

X Q. 12. State what are the points covered by that patent.

A. They first use a tool—I should call it a drive point—a sharp-pointed instrument without any perforations in the sides; they attach this to a rod and drive it down, removing the dirt backwards until it reaches the water, but not upwards as in boring, then they withdraw this pipe and tube and insert a hollow tube made a little smaller and open at the lower end without any point or screen on it; they drive this into the water or until it reaches the water.

X Q. 13. Are these all the matters covered by their patents? If not, state what others are covered by the same.

A. Or by driving a hollow tube into the earth until it reaches the water. If there is not a large enough flow of water they make perforations in the side of this tube near the bottom, about $\frac{1}{2}$ to $\frac{3}{8}$ inch hole, up the pipe about a foot or a foot and a half. They claim to attach a pump with an air-tight connection to the top of this tube to make the well.

X Q. 14. State whether in the making of the wells you use any part of this process. If so, state what you use.

A. No, sir; we do not.

759 X Q. 15. In your direct examination you stated that you had put a pump in an open well for one Snow; will you now state what was in said well when you commenced on it.

A. There was a pump and pipe and screen.

X Q. 16. Did you take out that pump and pipe or do anything with the same? If so, state fully what you did.

A. I took out the pump and pipe and cleaned out the sand below with our tools, under our process, because it did not work good before; then put back in the pump; whether I put back all the pipe I don't remember; then attached the pump; we cleaned it out the same depth it was before.

X Q. 17. Did you put in the first pump and pipe that you found there?

A. I did not.

X Q. 18. In repairing it did you put the point down in a different place from where the old one was?

A. I did not. I put it in the same place.

X Q. 19. Was the water in the well above the surface of the ground in the bottom of the well?

A. Yes, sir.

X Q. 20. How deep was the water above the surface of the earth in the bottom of the well?

A. It was so you could dip a bucket in and draw up a pail full. I did not measure it.

X Q. 21. Before you put down your drive point did you get the water out so as to see the earth in the bottom of the well?

A. I did not.

X Q. 22. Have you repaired this well since that time; if so, when?

A. Yes; this spring.

X Q. 23. How was the water in the well at that time?

A. There was water in the bottom of the well; did not measure it; it covered the bottom.

760 X Q. 24. In your direct examination you stated that you had put a pump in an open well for one Lewis. State now whether there was a pump in that well when you went to fix it.

A. There was not.

X Q. 25. Was there water above the surface of the ground in the bottom of that well? If so, state about how deep.

A. There was; I should judge about a foot deep.

X Q. 26. Was there water in the earth all the way down to rock?

A. Yes.

X Q. 27. How thick was the water-bearing strata at that place?

A. About four feet.

X Q. 28. By the method that you employed in making that well did you use any part of the method covered by complainant's patent?

A. No; I did not.

X Q. 29. In your direct examination you stated that you always put the tube so that the upper perforations in the same would be two or three feet below the surface of the earth in the bottom of the well; now state why you so place it.

A. So that when we pumped we would have plenty of water (if) it was not down that far; by pumping for water would lower or exhaust, so as to take air in the upper hole of the screen.

X Q. 30. Would the water exhaust any sooner in a well dug down to the same depth than in a well as you make them?

A. No.

X Q. 31. Would it make any difference about the screen being below the surface of the earth in the bottom of the well if it was below the surface of the water?

A. No.

X Q. 32. If the screen was below the surface of the earth and above the surface of the water, could you pump with it?

A. No.

761 X Q. 33. In case you put the screen below the surface of the earth in the bottom of the well and projected it into the water, but so that the upper hole in the screen was above the water, what effect would the operating of the pump have in drawing up the water? State fully.

A. It would pump air in; it would not raise water.

X Q. 34. In case you put a pipe down into the earth and into the water-bearing strata, so that it will draw water by operating the pump, what effect will it have on the pumping of water to make a hole in the pipe above the water and below the pump?

A. It will stop the pumping of water by pumping air into the pipe.

X Q. 35. How long have you known the use of pumps in raising water from wells?

A. About forty years.

X Q. 36. State whether during all that time you have ever known a pump that was attached to the pipe by an air-tight connection?

A. All of them that I have seen used were attached to an air-tight connection.

X Q. 37. Could a pump be used to draw water that was not attached by an air-tight connection?

A. No.

X Q. 38. Could a pump be used to draw water that had not an air-tight tube from the surface of the water to the pump?

A. No.

X Q. 39. In your direct examination, in describing the well of Henry Winman and some others, you stated that you put this kind of pump in the manner described in open wells, so that in case they caved in or sand washed in it would not spoil the well, and that such a well would not be spoiled by caving in, or by sand washing in. Will you now state fully why such wells would not be injured by caving in or filling with sand?

A. Because they are in plenty depth of water; if they should fill in it would not injure it unless it broke the pipe in two. I never knew one to do it. I have seen several that had caved in and the well appeared as good as it was before.

762 X Q. 40. Would the well be just as good if the pump pipe was set on the top of the earth in the bottom of the well, provided there was plenty of depth of water, as it would be if driven or sunk below the surface of the earth in the bottom of the well?

A. Yes; it would be as good.

X Q. 41. In your direct examination you stated that sometimes when a pump was put into a well and on pumping awhile the water would be exhausted and it would take air, and that such difficulty would be overcome by driving or forcing the tube down into the earth at the bottom of the well. Now, state fully whether the difficulty would not be as readily overcome by digging out or loosening out the earth to the same depth?

A. It would; it would be the same.

X Q. 42. Does it make any difference about the earth being around the pipe or pump in case there is plenty of water in the earth and at and above the perforations in the pipe?

A. You can pump the same amount of water at all times if it don't take air; the same in one as in the other—no; it don't make any difference.

X Q. 43. When you bore a hole in the earth with a three-inch auger and insert an inch-and-a-half pipe into the same and project the pipe into the water below, will it make any difference in the pumping whether the earth is packed tightly about the tube above the water or not?

A. No, sir; it would not.

X Q. 44. In your direct examination an affidavit was shown you, to which was attached your signature. Now, look at said paper and state whether the same shows on its face to have been changed since it was written?

A. It does.

X Q. 45. Now, state whether there are any changes that have been made since it was read to you before you signed it?

A. There is.

763 X Q. 46. Point out those changes that you now know were made in that way.

A. One place, on page 4, the words "put down" have been changed to "drive;" there are other changes appearing; I can't say whether they were there when I signed it or not.

X Q. 47. Where the words "put down" have been changed to "drive down," was it read to you, before you signed it, as "put" or "drive?"

A. As "put down."

X Q. 48. Did you ever consent to the change being made?

A. Have not; never.

X Q. 49. When did you first know that it had been changed?

A. When it was read by Mr. Rickle in the court at Des Moines.

X Q. 50. Did you at that time claim that it had been changed?

A. I did; I stated to Mr. Lake so at that time.

X Q. 51. Was there any statement made to the court to that effect at that time?

A. There was, by Mr. Lake.

X Q. 52. In your direct examination you was asked to produce your books and papers and give a list of names of persons for whom you had put down wells in Iowa, and when and where; this you refused to do. Now, state fully why you did so refuse.

A. First, because they said they would sue every man that had my wells, and because I did not think it would be right. I felt as though I would not be safe in the hands of the people of this county. I will further state it is a fact that Andrews has sued so many that who have my wells here and many that who have open wells in this county—the people are so indignant, too—that I do not want to be an informer.

X Q 53. Has there been any question before the judges of the United States court or before the court where the question 764 was raised as to whether your well was an infringement on the patent claimed by the complainants? If so, state how many times and before whom the question was raised.

A. Yes; it has been in court, before Judge Love, at Iowa City—I have not got the dates—at our trial there; also at Des Moines, before Judge Dillon, at our trial there.

X Q. 54. How were the decisions in these cases as to the question whether your well was an infringement on the patent of complainants?

A. They said there was no infringement shown.

X Q. 55. Now, state whether, under the circumstances of the findings of the judges, you believe the complainants have any right of action against persons having your wells.

A. I have believed they have no right.

X Q. 56. Can you give to the court or the referee that they may appoint as full an account of the wells made and the profits on the same without giving the names of the parties for whom they are made as by giving such names or list of persons?

A. I can.

X Q. 57. In order to ascertain the amount of profits that you should account to complainants for in case the court finds that you should pay them anything, is it necessary to give a list of the names of persons for whom you have made wells?

A. It is not.

X Q. 58. Has there been any case tried, to your knowledge, in which the question of whether your patent was an infringement of complainants' patent was before the court, where it was decided that it was such an infringement?

A. No.

X Q. 59. Has that question ever been raised at any time except before Judges Dillon and Love, so far as you know?

A. It has not.

X Q. 60. In your direct examination you was asked if you
765 could bore a hole in the sand and gravel in a water-bearing
strata that would remain a hole any length of time. You
may now state whether such a hole will not immediately fill with
water.

A. It will.

X Q. 61. Aside from the water, will the sand and gravel fill it up entirely?

A. Not entirely.

X Q. 62. In case you pump out a large amount of fine sand from the vicinity of the pipe, will other sand and gravel come in so as to fill the hole thus made?

A. Not as full as it was.

X Q. 63. Will the water come in, so that with water and sand and gravel the hole will be as full?

A. Yes.

X Q. 64. By pumping out the fine sand and thus leaving a partial hole at the foot of the pipe, will the water flow to the pipe more or less readily?

A. More readily.

X Q. 65. In case you bore in the sand and gravel in the water-bearing strata and withdraw your auger, will the sand and gravel that fills into the hole be as tight as it was before you bored?

A. No, it will not.

X Q. 66. In case you bore a hole with an auger into sand and gravel in a water-bearing stratum and after withdrawing the auger could you put down into that hole a square-ended stick to the same depth as you could one that was sharpened, by using the same force?

A. No.

X Q. 67. State why you could not.

A. One with a sharp point will go in easier.

X Q. 68. You say in your direct examination that you frequently find sand so fine near the bottom of the water-bearing stratum that you cannot make a well. Now, state fully whether by your *progress* you are unable to make a well when the sand at the bottom of the water-bearing stratum is fine, and give reasons of such failure.

766 A. I do find such places, because we can't find no coarse sand that is mixed with it or that we can pump down into it. If it, the sand, is too fine, as we sometimes find it, the water will not run through it readily; in that manner it will clog up the screen.

X Q. 69. Is it necessary, then, in order to make a good well by your process, that there should be coarse sand or gravel next the screen?

A. Yes.

X Q. 70. Can you explain why this is necessary? If so, state.

A. The fine sand will clog up the screen if it was not pumped out and hinder the water from flowing freely, but when the fine is pumped out from the coarse sand, the coarse sand being next the screen, the water will flow through it readily.

X Q. 71. Have you found any places in Iowa where you could make a good well without pumping out the fine sand at the bottom of the pipe?

A. No.

Def't now states that he is ready to submit the question as to whether he shall produce his books and give a list of the names of persons for whom he has put in wells in Iowa, and when and where, to either of the judges of the United States court for Iowa, waiving time on such short notice as will enable him to reach the place where it is to be submitted, provided that the evidence taken thus far shall be submitted to the judge.

Defendant here rests.

Redirect:

R. D. Q. 1. Do you remember all that was said and done at the time and place where your affidavit, marked Exhibit "G," was drawn up and sworn to by you?

A. No.

R. D. Q. 2. Will you swear positively that the word "drive," referred to by you on 4th page of such affidavit, was not written there when you affixed your signature to said affidavit?

A. It was not there when it was read to me.

R. D. Q. 3. Was it there when you affixed your signature to it?

A. I don't think it was; the first I heard of it read was in the court-room at Des Moines; nor I did not see it when I read it when the instrument was made.

767 R. D. Q. 4. Will you swear positively that it was not there when you affixed your signature to it?

A. I can't swear as it was.

R. D. Q. 5. Who read this instrument over to you the last time it was read to you on the day it was signed?

A. Col. Lake.

R. D. Q. 6. Will you swear positively that he read it over to you the last time on the day it was signed?

A. I will.

R. D. Q. 7. Will you swear positively that Mr. Eastman did not read it to you after the changes had been made at Col. Lake's suggestions?

A. Yes; I want to say that Mr. Eastman read it just before Col. Lake came in; that is the only time he read it.

R. D. Q. 8. After Mr. Lake came in were there not a number of alterations made in it at his suggestion?

A. I do not remember.

R. D. Q. 9. You have not, then, a very distinct recollection of what took place there?

A. I have.

R. D. Q. 10. Why, then, can't you tell whether there were any changes made in it or not after he came in?

A. I do not remember of any.

R. D. Q. 11. Do you remember that there were not any changes made after he came in?

A. I do not remember that there was not; if there had been I think I would have remembered it.

R. D. Q. 12. Now, let me ask you, was not that paragraph of the affidavit at the close written in at Mr. Lake's suggestion and after he came into the room?

A. I think not.

R. D. Q. 13. Are you sure of it?

A. I don't remember of anything being written after he came in.

768 R. D. Q. 14. Do you not remember that the word "sometimes" was inserted after Col. Lake came in?

A. I don't think it was.

R. D. Q. 15. Do you know whether that was made before or after you signed it?

A. Yes; that was made before I signed —.

R. D. Q. 16. Was the word "generally," in the 3d page of the affidavit, written before you signed it?

A. Yes; that was before I signed it.

R. D. Q. 17. Were the words interlined between 11th and 12th line on 4th page "or attempted to do so" written in before you signed it?

A. Yes, sir.

R. D. Q. 18. Were the words "with perforations in the same," written in between the 16th and 17th lines of the affidavit, written before you signed it?

A. Yes.

R. D. Q. 18½. Was the word "drove," between the 23d and 24th lines in the affidavit, written before you signed it?

A. I think it was.

R. D. Q. 19. Was the words "and without screen," between the 25th and 26th lines, there before you signed it?

A. It was there.

R. D. Q. 20. Was the words "or attempted to do so," between the 27th and 28th lines, there on the 4th page when it was signed by you?

A. Yes.

R. D. Q. 21. Then you claim that the only word that has been written in there since it was read over to you on the day it was signed was the word "drive," between the 15th and 16th lines on the 4th page?

A. Yes.

R. D. Q. 22. How long a time elapsed between the time it was read over to you and its being signed by you?

A. Not over five minutes after Mr. Lake read it over to me.

769 R. D. Q. 23. After it was read over to you by Mr. Eastman, a notary public, was there not some writing done in it?

A. Not that I remember.

R. D. Q. 24. After it was read over to you by Mr. Rickle and before you signed it was there not some writing done in it?

A. I think there was some little correcting or interlining.

R. D. Q. 25. After Col. Lake read it over was there not some writing done in it or some changes done in it?

A. I don't remember of any.

R. D. Q. 26. Are you sure there were none?

A. I don't think there was.

R. D. Q. 27. Are you sure of it?

A. I don't remember; I feel pretty sure.

R. D. Q. 28. Who was present when this affidavit was made, read, and signed?

A. Mr. Rickle, Mr. Parsons, Mr. Eastman, Col. Lake, and myself.

R. D. Q. 29. Was there no one else?

A. I don't remember of any one else.

R. D. Q. 30. Have you a distinct recollection from seeing this affidavit at that time that the word "drive" was not in there and the word "put" erased, or do you remember it from the fact that you would not have been likely to make any such statement?

A. If it had been there I should have seen it also when it was read to me; I should have noticed it quick.

R. D. Q. 31. You have already sworn that you are not positive that it was not in there when you signed it or not. How, then, can you now swear it was not there positively when you signed it?

A. I don't remember; it's my best recollection that it was not there.

R. D. Q. 32. What makes you so sure that you would have noticed that quicker than the other places that were interlined?

A. When they say I drive down instead of boring I should remember it quick.

770 R. D. Q. 33. Was not that statement as it stands in the paragraph in which the word "drive" is used, that you claim was not read to you right, true?

A. It was not true.

R. D. Q. 34. Wherein is it untrue?

A. Because I bore them down.

R. D. Q. 35. Is it not true that you sometimes force or drive into the water-bearing stratum from three to eight feet?

A. Not till I have bored into the water-bearing stratum several feet.

R. D. Q. 36. After boring into the water-bearing strata do you not drive the pipe from three to eight feet into the water-bearing stratum?

A. Sometimes I might have the drive point, but not the screen.

R. D. Q. 37. But you ain't certain that you have or not?

A. I think I have.

R. D. Q. 38. Is this language of the affidavit made by you true or not:

I then take a three-inch auger and with a sheath attached bore down to the water-bearing strata from 3 to 6 feet; I then take a pipe shod with a point and sometimes force or drive this pipe thus made into the water-bearing strata from 3 to 8 feet; I sometimes drive or force the pipe so as to get the upper perforations in the screen pipe 2 to 6 feet below the surface of the water-bearing stratum?

R. D. Q. 39. Is the following language in your affidavit, marked Exhibit "G," correct or not:

"Then I take a three-inch auger and with a sheath attached bore down to the water-bearing stratum and sometimes bore into the water-bearing stratum from three to six feet; I then take a pipe shod with a point and sometimes force or drive this pipe thus made into the water-bearing stratum three to eight feet; I sometimes drive or force the pipe so as to get to the upper perforations in screen pipe two to six feet below the surface of the water-bearing stratum?"

A. If the word "sometimes" into the water was left out of the affidavit it would be correct; it is the first where I bore in.

R. D. Q. 40. Now, before you answered this interrogatory
771 did you not retire and consult with your solicitor as to how you should answer the last interrogatory?

A. I did.

R. D. Q. 40½. Well, what conclusion did you come to?

A. To have the sometimes in the affidavit stricken out.

R. D. Q. 41. Was you advised to do this or was it suggested to you?

A. It was suggested to me.

R. D. Q. 42. And you acted on that suggestion, did you?

A. Yes.

R. D. Q. 43. This part of the affidavit was read over to you two or three times before you signed it, was it not, and you read it over yourself, did you not, before you signed?

A. Yes.

R. D. Q. 44. Then it never occurred to you to strike out the word "sometimes" until your solicitor suggested it to you?

A. I knew there was a mistake there when I heard it read here, and asked him how I could rectify it, and he said strike out the word "sometimes" as you have and it would read all right.

R. D. Q. 45. When you make a mistake in giving in your testimony or giving in your affidavits do you have to consult your solicitor about correcting the mistakes and get his consent to do so?

A. I asked him in this case.

R. D. Q. 46. Why in this case any more than in other cases?

A. I thought it would save writing over a long writing probably by altering some word.

R. D. Q. 47. ——

R. D. Q. 48. There are many places in Iowa where you have bored with an auger down to and into the water-bearing stratum and withdrawn the auger and inserting in the hole thus made a hollow metal tube of about 1½ inches in diameter, shod with an
772 iron point, with perforations above the same, and driven the
same from 3 to 8 feet into the hole thus made?

A. I have in some places attached a sand pump to said pipe and cleaned out the fine sand at the bottom under our process as in our patent.

R. D. Q. 49. At about how many places have you done that in Iowa?

A. I don't remember.

R. D. Q. 50. As many as a hundred?

A. I think not; I don't know.

R. D. Q. 51. How many can you safely say that you have made in that way of any sized tubes?

A. I say fifty.

R. D. Q. 52. Have you not put one hundred in that way of all sized pipes?

A. I can't say I have; no idea how many.

R. D. Q. 53. Do you not think you would be as safe to say that you had put down 100 as 50?

A. I think I put down 100.

R. D. Q. 54. After constructing wells in this way would you attach the pipe to a pump and pump water from the well?

A. After pulling out the tube we have driven we insert a gauze-covered screen point, as is shown in figure 2 in patent issued to Elias S. Hovey, No. 123,903; to this last pipe we attach a pump and pump water.

R. D. Q. 55. Was this done in all the wells you constructed in that way?

A. Yes.

R. D. Q. 56. How many wells have you found where the dirt was not filled around the tube when you went to repair them?

A. I can't state; most of them has sand around them.

R. D. Q. 57. Tell some person for whom you have repaired a well where its dirt has not filled around the tube.

A. Well, it is in this town; the section boss on the Illinois Central R. R. is one.

R. D. Q. 58. Who put the well down?

773 A. I did, sir.

R. D. Q. 59. You speak about your having pulled out tubes that had been driven clear down, and that they pulled out quite hard. State for whom, when, and where you did this.

A. For Jim Smith, Muscatine Co., in 1871; I think it was in the spring of the year; I think in April.

R. D. Q. 60. Did you ever pull out any others?

A. I have.

R. D. Q. 61. When and where and for whom?

A. I did in Muscatine Co.; I don't recollect the names; it was a day or two before I pulled Smith's; I have quite a number more; I don't remember the names.

R. D. Q. 61½. Who, if any one, has threatened to mob you if you gave under oath in court the names of the persons for whom you have put down wells?

A. No one has told me so that they would mob me, but there is a current report that they will mob any one that did it.

R. D. Q. 62. Tell me the name of the one person that ever told you that that would be done if you ever did it?

A. I cannot tell of any persons' names; I don't remember.

R. D. Q. 63. Have you heard it often?

A. Yes.

R. D. Q. 64. How often?

A. I have heard of the report of their saying so north and east of here.

R. D. Q. 65. Have you heard 20 persons say so?

A. No; I don't think I have.

R. D. Q. 66. Have you heard a dozen?

A. I have heard the report that they would mob.

R. D. Q. 67. From how many persons have you heard the report?

A. Can't tell.

R. D. Q. 69. Have you heard a dozen?

A. Well, I should think I have nearly.

774 R. D. Q. 70. Can you give the name of one?

A. No.

R. D. Q. 71. Is your memory poor?

A. Not very; it is in names sometimes.

R. D. Q. 72. Do you belong to an organization having for its object a resistance to the collection of royalties on drive wells?

A. No; don't know of any such.

R. D. Q. 73. Do you belong to an organization having for its object resistance to the payment of royalties on wells put down by you?

A. No; I do not belong to any organization whatever; not even a church.

R. D. Q. 74. Did not these threats come from men who belong to organizations having for their object resistance to the payment of royalties on drive wells?

A. I do not know; I do not know of such organizations.

R. D. Q. 75. Did you ever hear any man say that he would do violence to any one who attempted to collect royalties on drive wells, or who would furnish names of parties having wells?

A. I don't think I have.

R. D. Q. 76. Have you ever known of an instance of a party who was collecting royalties or furnishing names of persons owning or using wells being injured, or of any attempt being made to injure him for so doing?

A. No.

R. D. Q. 77. If you have never heard of any person threatening to do it, or of its being attempted to be done, why are you afraid that you will be mobbed if you give a list of names when being inquired of upon a legal examination under oath?

A. I have heard a great many reports of people from nearly all over the country that they would be mobbed if they attempted to collect royalties or give names of those that had wells.

R. D. Q. 78. If you have heard a great many persons talking about it from nearly all over the country could you not give the name of one?

775 A. Yes.

R. D. Q. 79. Well, give the names of as many as you can.

A. Yes; West Curtiss, Dr. Warne; I can't tell.

R. D. Q. 80. The excitement has died out now, has it not.

A. It is not as high as it was.

Adjourned until 8 o'clock p. m. for supper.

8 P. M.

Resumed the redirect examination:

R. D. Q. 81. Do you hear of any excitement or talk of mobbing now?

A. No.

R. D. Q. 82. Have you aided in creating the excitement and mob spirit that you speak of?

A. No, sir.

R. D. Q. 83. You stated, in replying to your examination-in-chief, that you did not want to give the names of persons for whom you had put down wells because you had promised them not to, and you now say it is because you are afraid of being mobbed. How is this?

A. I think I said that it was because I had promised not to give the names of many persons, and I was afraid of a mob; that is what I said.

R. D. Q. 84. Will you now give the name of one person who asked you not to give in his name?

A. No; for I don't remember any such person.

R. D. Q. 85. Do you remember that any person ever requested you to do so?

A. I know they asked if I would do so, and I said I would not, but I can't remember the names of one of them.

R. D. Q. 86. Do you remember the name of one?

A. No.

R. D. Q. 87. In your cross-examination you said you bored down with an auger as far as you can. What stops you?

776 A. If you get in the water too deep you can't pull your auger out, on account of pulling so hard.

R. D. Q. 88. Then in making deep wells you have to stop boring sometimes on that account?

A. I never have bored one but I have bored clear to the water.

R. D. Q. 89. How deep into the water can you bore without making it too hard to pull out?

A. Generally after you have reached 4 or 5 feet; sometimes it will be deeper, according to the formation of the sand.

R. D. Q. 90. How deep is the deepest that you ever went in making one of these wells below the surface of the water?

A. I don't remember.

R. D. Q. 91. In making the last well that you spoke of in your direct examination how far did you say you bored in the water?

A. I said about 4 feet into water and to clay.

R. D. Q. 92. You bored this and withdrew the auger alone after going down 4 feet in the water?

A. Yes.

R. D. Q. 93. Did you have any appliances or anything but your hands to assist you in getting the auger out?

A. No.

R. D. Q. 94. You say that if a pipe with a screen point was simply set in the bottom of an open well, and the well should cave in and fill up with earth, that the well would furnish just as much water and be as good as it was before, unless it should happen to break the pipe, and you never knew of an instance of that kind.

A. I don't think I made that statement.

R. D. Q. 95. Do you remember what statement you did state?

A. I don't know as I do.

R. D. Q. 96. What do you say to that proposition?

A. I think there would have to be water in the well in the first place.

777 R. D. Q. 97. If your screen-covered pipe was set in the bottom of an open well instead of being driven, and the well should cave in or be filled with earth, would it supply a pump with as much water as it did before?

A. No.

R. D. Q. 98. Why not?

A. Part of the space in there is filled up so that there would not be as much in there.

R. D. Q. 99. Did you ever try this experiment to see?

A. No.

R. D. Q. 100. Then, by driving a pipe into the bottom of a well, as you do, and placing the screen point from a foot to 2 feet below the surface of the earth in the bottom of the well or hole made, you do not get as much water as you would in an open well, because there is not as much space around the pipe below the surface of the ground?

A. If there is plenty of depth of water you can't exhaust it.

Recross-examination resumed:

R. X Q. 1. In reply to redirect int. No. 48 you state that you had driven a hollow tube from 3 to 8 feet into the water-bearing strata. Now state whether you previously bored to the same depth that you drove this tube.

A. I did.

R. X Q. 2. Will you now explain in regard to that method, and state the distance you generally go in making such wells?

A. Well, I bore down with my common clay auger, then took it out and made my well; the distance I generally bore is from 3 to 5 feet.

R. X Q. 3. Do you now remember of ever going 8 feet into the water-bearing strata?

A. I do, and did not make the well.

R. X Q. 4. State why you did not make the well.

A. It was what I call clay mixed a little, and I could not
778 clean it out; there was plenty of water, but could not clean
it out, on account of clay mixed with sand.

R. X Q. 5. In your re-examination you stated at one time that you have consulted with your attorney as to the answer you should give. Did you not state to your attorney that the word "sometimes" was wrong, that you always bored, and did not he then say: "Tell them to leave out the word 'sometimes' before bored and it will be right?"

A. Yes.

R. X Q. 6. Was not that the entire consultation you had before testifying?

A. It was.

R. X Q. 7. In your redirect examination you state that Dr. Warne and West Curtiss you had heard talk about mobbing; now state what you heard them say on that subject.

A. I heard them state that they had heard of people up by Otter Creek that said if persons notified or came to collect royalties on their wells that they would be mobbed.

Q. X. Q. 8. Did either of these men claim that they wanted to mob any one?

A. No.

R. X Q. 9. Did they claim that it was anything but a rumor that had come to them?

A. That was all.

Testimony of witness closed, except that the complainants reserve the right to examine the witness further when the court passes upon whether the witness shall answer questions and produce his books.

Adjourned until Thursday, August 14th, 1879, at 10 o'clock a. m.
(Signed) GEORGE HOVEY.

Adjourned until Wednesday, August 20, 1879.

(End.:) W. D. Andrews *et al.* *vs.* Geo. Hovey. Deposition of Geo. Hovey.

779 GEORGE HOVEY, being recalled to answer certain interrogatories which he refused to answer on a previous examination, deposed as follows:

Q. 1. Mr. Hovey, have you now with you and will you produce in court all books and papers relating in any manner to your manufacturing or constructing wells in Iowa, either on your own account or in connection with the firm of Hovey Bros., of Independence, Iowa?

A. Yes, sir; the books are in court.

Q. 2. Mr. Hovey, go on and state for whom you have put down wells in Johnson county, Iowa, in connection with Hovey Bros. or yourself.

A. The first I see in the book is Sterling Stag, from that county; I think it was put in '71; could not tell the month; also D. B. Cox, Charles Cox, Mr. Loan, Mr. Numerly.

Q. 3. Now go on and state for whom you put down wells in Linn county, Iowa.

A. I don't remember any in Linn county.

Q. 4. Go on and state for whom you put down wells in Muscatine county, Iowa.

A. John Butcher, July 21, 1874; Marvin Fisher, Aug. 1st, 1874; Felix Rock, Aug. 1st, 1874; Lock Smith, Aug. 4th, 1874; these are all I can see on the books I know.

Q. 5. Go on and state for whom you put down wells in Louisa county, Iowa.

A. S. Blake, July 14, 1874; Menton Carpenter, July 15, 1874; David Beadnell, July 16, 1874; Hiram Blavins, July 17, 1874; Levi Blake, July 18, 1874.

Q. 6. Go on under that head and state the names of all persons for whom you have put down wells in Iowa since April, 1871.

A. The first one I come to is Cole, in Independence, put in Sept. 3, 1872; David McBride, Independence, Sept. 5, 1872; David Height, Boyling's Grove P. O.; Bush Acre, Ingham P. O., Franklin
780 county; A. H. Shoffer, Sept. 17, 1872, Ingham P. O., Franklin county; James Connor, Sept. 18, 1872; Melvin Brooks, Bradford P. O.—no date; Ira Foster, Sept. 30, 1872, Bradford; Miss Perry, Sept. 30, 1872, Bradford; Morris Condon, North Washington, Chickasaw county; G. S. Dickinson, Oct. 2, 1872; George Marcy—can't give P. O.; Hawkins, Bradford; William Tapper, 9th Oct. 1872; Valentine Friedrizie, Oct. 10, 1872, Bradford; Thomas Tigh, Oct. 19, 1872, Independence; E. Barlow, Independence, Oct. 6, 1876; William Cain, New Hartford, Sept. 21, 1877, Butler county; Creamery Well, New Hartford, Sept. 20, 1877; Andrew Ellis, Independence, April 26, 1877; M. J. Pearce, New Hartford, Sept. 21, 1877; James Litts, Independence, April 17, 1879.

(Books here produced by the defendants, marked Exhibits "A," "B," "C," and "D.")

Q. 7. I see a book here produced by you, marked Exhibit "A," in which are entries as follows: "May 6th, 1875, for Thomas Tighs, repairing and ten feet deeper, $13.75." Explain what that entry means.

A. There was a hole in his pipe—old pump—and I took it out. There was, I think, a two-foot piece in same pipe, which was good; then I put on a ten-foot piece, the same length as the old one that had the hole in it, and put it back.

Q. 8. Who made this well originally?

A. My brother.

Q. 9. Has Ira Alexander a tube well?

A. Yes; he had.

Q. 10. Did you put down more than one for Andrew Ellis?

A. Yes; I put down two; one was there only for a short time.

Q. 11. Did you or the Hovey Bros. put down a well for Phillip Foal?

A. I put down one for trial, and they did not like it and I took it out, at Crane Creek.

Q. 12. How long did they use it?

781 A. Not many days. This was 20th April, 1877. When I went out they had a hole bored and a pump in it, and I took mine away.

Q. 13. Did you put down a well for L. Griswold?

A. I moved one for him and repaired it Jan'y 27, 1875; Perry township, Buchanan county.

Q. 14. Now go on and state all you done in moving this well.

A. He had the pipe point and pump at his house. I lowered it down and cleaned out the same with my drive point; then took that off and put on the screen; put that in, repaired the pump, and put it on.

Q. 15. How far did you force or drive the drive point in that well?

A. Don't remember of driving it at all.

Q. 16. Did you force it?

A. Don't remember of forcing it. It was a little clay mixed, and I bored down to proper depth with my auger.

Q. 17. Did you bore down so as to leave a hole as far as your drive point went?

A. I can't state certain; I think so.

Q. 18. You say you remember in the case of that particular well you bored considerably further than you usually do, on account of there being some clay mixed in it?

A. Yes sir; and what made me say this there was considerable clay mixed.

Q. 19. I see in your book, marked Exhibit "A," an entry like this: Hatch, iron pump, $8.50, April 18, 1877; moved well and pipe, $3.65; total, $12.15. Now, go on and state what kind of a well that was, and how you made it.

A. It was an iron pipe in a dug well. I pulled it out with my hands. I took it about 20 rods, I should think; dug a hole three foot square and five feet deep; made a box and put in the hole about three foot square. I bored down and cleaned out the same,
782 as I have in all the wells—the same process—and put on the
pump. It was, I think, about a year. The house was burned up. The well is gone; I don't know where.

Q. 20. Do you know how far you forced or drove the pipe in that well?

A. I don't remember.

Q. 21. How large an auger did you use in making that well?

A. About 3-inch.

Q. 22. What was the external diameter at the knuckle, where it joined together?

A. I don't know.

Q. 23. What was the usual external diameter of the pipes at the knuckle that you use in making these wells?

A. About an inch and a half; don't know exactly; I never measured them.

Q. 24. Here is an entry in book marked Exhibit "A," as follows: "Mrs. Hammond, New Hartford, moving well, $4.00." State how you moved the well.

A. I don't think I was present when it was pulled up; some of my hired men done it; I don't remember about being there when it was made; my hired men and I put them in alike; they put it in.

Q. 25. I see an entry here in the book introduced, marked Exhibit "A," as follows: "School-house, repairing pump, $5.00; moving well west side of school-house, $5.00." Explain what that means.

A. The repairing pump, I don't remember what I put on it; I charged them $5.00; moving well was on Feb. 18; then I moved the well into the school-house March 25, 1875; moved it into the basement; I pulled up the old well: I took a chain and iron bar and pulled it with that 3 or 4 feet, and then pulled it out with my hands; went into the basement and dug a hole 3 feet square and 5 feet deep; bored down, cleaned it out, and put in the pump, as I always do.

Q. 26. What was the space between the floor of this building and the ceiling overhead?

783 A. I do not know; I should judge 10 or 12 feet, but I don't know; it is just guess-work.

Q. 27. How deep was the well?

A. Somewhere about 14 or 15 feet, I should judge.

Q. 28. How did you get your pipe in it after you had bored the hole—a 14 or 15 feet pipe?

A. I put the point down in the well, took my pipe and screwed them together down in there.

Q. 29. How far did you bore that well?

A. I do not know; I bored it into the water, but how far in I do not know.

Q. 30. How far from the service of the ground in the basement was it to the water?

A. I do not remember.

Q. 31. How did you force or drive the pipe in this case?

A. I should think not over a foot; I think I forced it a little at the bottom.

Q. 32. Do you have a distinct recollection of what you did do at that time at that well?

A. I do.

Q. 33. But yet you can't state how far you went in the water nor how far you bored, nor how far you drove or forced the pipe?

A. I remember when I came to screw the pump on I had to force it a little.

Q. 34. Who put down the well originally?

A. I do not know.

Q. 35. When did you say you took up this well last?

A. This present spring or summer I put it down; the pipe was up, I think.

Q. 36. How did you pull it out?

A. I don't think I pulled it out.

Q. 37. Who did?

A. I do not know.

Q. 38. How did you get it down to its place the last time?

A. Put it into the hole and pushed it down with my heft.

784 Q. 39. Where is the school-house that you have been testifying about located?

A. On the west side, Independence, Iowa.

Q. 40. Did you put down a well for John Miller, April 1875? If so, go on and state what you done.

A. I pulled up an old well; we pulled it up with a bar and crow; then I found a hole in the pipe or screen, I can't say which, and repaired it and put it back.

Q. 41. Did you put it back in the same hole you pulled it out of?

A. Yes, sir.

Q. 42. Did you have to force or drive it to get it back to its place?

A. I do not know whether I did or not; I was not present all the time; one of my sons was with me at the time.

Q. 43. Do you know who put that well down originally?

A. No; I could not say.

Q. 44. I see an entry here in book "D," Exhibit of 1872, as follows: John Z. Lewis, driving old point, $5.00, and just under these words the figures $36.75; what does this mean?

A. I don't know; I never put in a well for him; my brother did; I think he did.

Q. 45. Is not that entry made in that book by you?

—. Yes; the handwriting is mine, but the well was not put in by me.

Q. 46. How came you to make that entry in the book if the well was not put in by you and you had nothing to do with it?

A. I was not present; I don't know anything about it.

Q. 47. Well, how came you to make that entry in the book, to driving one point or pump, $5.00, if you did not know anything about it?

A. I do not know.

Adjourned until 7 o'clock p. m.

785 7.30 P. M.

Met pursuant to adjournment, GEORGE HOVEY on the stand.

Q. 48. Look at your book marked Exhibit "C" and then go on and give the number of tube wells you have put down that you find a memorandum of in that book.

A. Here is William Grays, Black Hawk Co., Jan'y 3d, 1874; Baker, April 3d, 1874—guess it is in Buchanan Co.; James Forbs, Ap'l 8th, 1874—don't remember county; J. E. & John Evans, Ap'l 9th, 1874—don't know county; John McGower, April 10th—don't know county; R. Updyke, April 17, 1874, Buchanan Co.; Wm. Bagginstraws, Laporte City, April 23, 1874; Charles Carr, Laporte City, April 23, '74; school-house in Mason's district, Buchanan Co.; Patrick's Independence; H. F. Gates, Laporte, April 23d; Emma Lewis, O. Elwein, Fayette Co.; G. U. Warren, May 26th, Independence; Theodore Blakeman, May 27, '74; Charles Horman, New Hartford, June 3, '74; Joseph Ackinson, June 4, '74; New Hartford; Herman Livingston, New Hartford; Enock Henlenk, New Hartford; Lewis Hammond, New Hartford; H. Hammond, New Hartford, June 10, '74; Peter Bunn, June 11, Butler Co.; D. E. Jelormon, Butler Co., June 12, '74; H. Heightsville; school-house, Butler Co.; Tifefield, June 18, '74, New Hartford; Wm. Crozier, Butler Co., June 19, '74; Henry Mead, June 19, '74, Butler Co.; Anno Dardis, Independence, July 6, 1874; Thos. McNulty, Independence, July 7, '74; W. Hinckhouse, July 13, '74—don't know where he lives; Thos. Maxwell, 21st July, Muscatine Co.; John Snigle, in Muscatine Co., 21st July; Boggs, July 22d, Muscatine Co.; Mrs. Lyons, Aug. 1st, Muscatine Co.; McIlwaine, Oct. 6th, New Hartford; Charles Ensign, New Hartford, Oct. 6, '74; H. Converse, Oct. 7, '74, Willoughby; Spencer Tupper, Nashua, Oct. 14, '74; John Tupper, Oct. 15, Nashua; Chas. Taylor, Bradford, Oct. 17th, 1874; Butterfield, Nashua; McCay, Nashua, Oct. 20, '74; Irvine, Butler Co.,
786 Oct. 10; John O'Laughlin, Independence, Nov. 5, '74 (for
moving well); James Moleny, Independence; John Campbell, Oct. 7, '74, Independence; Mehreb, Dec. 2, '74, Jessup P. O.; D. D. Holderidge, August 2d, 1875, Independence; Manning, Aug. 11, '75, Independence; Miss Pease, Independence; Stephenson Heirs, Independence, Sept. 9, 1875; Miss McDerme, Independence, Sept. 28, '75; Peter Sheean, Oct. 4, '75, Independence; Edward Condon, Independence.

Q. 49. Were these wells that you say were put down put down substantially in the same way?

A. No; not all.

Q. 50. What was the difference?

A. Some was put in in the bottom of dug wells; they were all put down on the E. S. Hovey patent.

Q. 51. Those that you put in open wells, how did you put the pipe into the well and into the water-bearing stratum?

A. We put on our point No. 1, as described in E. S. Hovey patent, and put it down the depth we wanted it—from three to five feet—and pumped out the fine sand; then we withdrew the pipe and put on a fine screen and put it in where we got the fine sand pumped out—attached our pump to it.

Q. 52. Do you mean from three to four feet from the surface of the earth in the bottom of the well?

A. Yes.

Q. 53. How would you get the drive point five feet below the surface of the earth in the bottom of the well?

A. Well, we generally had to force it some.

Q. 54. What would you force it with?

A. What I call churning it with the hand, forcing it right down; some call it chugging it down; some of these places we bored down with an auger.

Q. 55. Did you not drive with a beetle or sledge in some places or stick of wood?

A. Some we drove with a stick of wood, some one way and some another, but not until after we were in the water.

787 Q. 56. What proportion of these wells you have spoken of were forced or driven into the bottom of an open well?

A. I could not say certain; I should say a quarter or a third.

Q. 57. Did this tube that you used in constructing wells, when you made them from the surface of the earth, form the lining of the well pit, after you got below the surface of the earth in the bottom of the dug hole which you constructed for the purpose of putting the pump stock below the post?

A. It formed the well itself.

Q. 58. Was that the only lining of the well?

A. Yes.

Q. 59. Why did you drive or force these tubes in the bottom of open wells that had been dug and walled up?

A. To get them to the proper depth, that was all.

Q. 60. Was it for the purpose of getting a better supply of water?

A. It was so that they would not run dry.

Q. 61. In all those cases in the construction of these wells would you attach a pump to this pipe that was placed in the earth and pump water therefrom?

A. Yes.

Q. 62. Have you ever had a license from the complainants or any one claiming by, through, or under them to put down or construct these wells?

A. No, sir.

Q. 63. How did you construct wells prior to the issuance of this patent to Elias S. Hovey that you put down?

A. All put under the same process.

Adjourned until Thursday morning, Jan'y 15th, A. D., 1880, at 8.30 a. m.

788 THURSDAY, *Jan'y* 15, 1880.

Resumed the taking of testimony in pursuance of adjournment, GEORGE HOVEY on the stand.

X Q. 1. You testified in your direct examination about a well put in for Thomas Lighs. State when, where that was, and what you did.

A. It was Penn township, Buchanan Co., Iowa; I pulled up the well and found a hole in the pipe and put on a new piece of pipe and put it down the same depth it was before; I put it right down in the same hole.

X Q. 2. Where was the hole in the pipe, above or below the surface of the water in the earth?

A. Above.

X Q. 3. What damage did that do to the well?

A. It took air, so it would not throw any water by pumping.

X Q. 4. Was not the earth in contact with the pipe above this hole?

A. I did not notice.

X Q. 5. You say you made two wells for Andrew Ellis. Where were they made?

A. Both in this city, one on Mr. Patrick's lot, that Ellis lived on since then; I put in one on a lot right next of Bushnell's.

X Q. 6. Well, what became of that one?

A. I took it away; it only run a few weeks.

X Q. 7. Did Ellis pay you for it?

A. Yes.

X Q. 8. You spoke about the well you put in for Philip Foal. Now explain about that.

A. I put one in for Philip Foal and it did not work good at all; the subsoil was clay mixed so that I could not clean it so it would run; he said for me to leave it until I would come along again. I was there soon after and he said take it away, and I did; he paid me nothing for it.

789 X Q. 9. You spoke about L. Griswold and about the subsoil being clay mixed. Did you bore down through the clay into sand and gravel?

A. I did.

X Q. 10. In that well, after you had it bored, did you have to drive the tube any to get it down?

A. No.

X Q. 11. You spoke about a well you moved for Hatch. Now state what kind of a well he had before you moved it.

A. He had an open stoned-up well; whether the screen was in the sand below I don't know; I pulled it up; I don't know who put it in.

X Q. 12. When you pulled it up was there a point and screen on the pipe?

A. Yes.

X Q. 13. Did you put that same point and screen in when you moved it?

A. Yes.

X Q. 14. You spoke of a well put in for Mrs. Hammond, at New Hartford. Tell us what you did there.

A. I moved it about 20 feet, I should judge; it may have been 25 feet; I pulled it up and put it down in a new place.

X Q. 15. Did you put down the same pipe? And, if so, state what there was connected with the pipe.

A. I did; there was a screen attached to the lower end of the pipe and a pump at the upper end of the pipe; I moved it into the shed; it stood outside.

X Q. 16. Was that all you did to that well—was to move it into the shed?

A. That was all.

X Q. 17. You spoke about a well at the school-house, on the west side. State what you found when you went there to that well.

A. I found the pipe very rusty. I asked the board if I should put in new pipe, and they said I should.

X Q. 18. Where was the pipe when you went there?

A. My impression is that it was out—laying on the floor.

790 X Q. 19. Was there a point on it and a screen at that time?

A. Yes; there was.

X Q. 20. Was there a pump on it?

A. There was a pump there; I don't know that there was sand there. I used the same pump I found there.

X Q. 21. After you put the well down did you put the pump on again?

A. Yes; I put the well down in the same hole and put the pump on that was there.

X Q. 22. Did the pump when put on fit with an air-tight connection?

A. Yes.

X Q. 23. Was this the first or second time you were at that well?

A. Second.

X Q. 24. What did you do the first time?

A. I tried to get the pump on air-tight at the connection, but failed.

X Q. 25. You stated in your direct examination that you moved the pump at one time, how about that?

A. I did, some years ago; this was last season.

X Q. 26. Now, state how you found the well and what you did at the time you moved it.

A. I found the well outside the building and moved it into the basement.

X Q. 27. At that time was it in the ground when you went there?

A. It was.

X Q. 28. Will you describe the pipe and its connections when you pulled it out of the ground?

A. Well, the pipe was some rusty then and there was a screen attached to the lower end. I cleaned them up, both the pipe and screen, and put them down inside the building.

X Q. 29. Did you use the same pipe, screen, and point that you drew up outside?

A. I did.

791 X Q. 30. After you had drawn this pipe out of the hole in the outside of the building did you see any lining in the hole?

A. I did not. I saw water at the bottom of the hole.

X Q. 31. Was there any lining there after you had taken the pipe out?

A. No.

X Q. 32. You testified in your direct examination to a well you put in for John Z. Lewis. Will you look at your book and state what that entry is?

A. Stock well, 14½ feet, $1.50 per foot, John Z. Lewis; driving old pump, $5.00, $36.75.

X Q. 33. Now, state whether you was present when this work was done and know about it personally, and, if not, how you came to make that entry.

A. I was not present when this work was done. I kept the book and put this down afterward; that is all I know about it.

X Q. 34. State how you got the information and from whom in pursuance of which you made that entry.

A. I do not know; it was from our hired man, but who he was I have no idea; I rather think it was John Sanky.

X Q. 35. You stated in your direct examination about your putting iron tube wells into the bottom of dug wells; now, state particularly what kind of points and screens you put into the bottom of dug wells.

A. We put in to clean out a point without any wire gauze and clean out the fine sand and dirt from the coarser gravel by pumping it out with a sand pump; then we took that point and pipe out and put on a screen point covered with wire gauze. We put that in where we took the other out with a wooden plug in the lower end of the screen; that makes the well by attaching the pump.

X Q. 36. You said something in your direct examination about putting this drive in the bottom of dug wells by churning; now, state particularly how that operation is performed.

792 A. The drive point is attached to the tube, and we took hold of it and move it up and down and it settles down.

X Q. 37. Does that method enable you to put the pipe down where the point starts in the water-bearing stratum?

A. Yes.

X Q. 38. You said something about the reasons why you put these tube wells into open or dug wells. Will you now state more fully why it was necessary to go deeper than the well was dug?

A. Well, most of these wells will not give abundance of water all the time. We put them in deeper so that they will always have abundance of water.

X Q. 39. As you found these wells when you commenced to put in your tube well in the bottom were they dug down to and into the water-bearing stratum in which you stopped with your point and screen after you had put down the tube well?

A. Yes.

X Q. 40. You stated something in regard to the difference in the method of putting in these wells before the patent was issued to Elias S. Hovey and after the patent was issued. Now explain fully what that difference was.

A. I said all I put down was put down alike, before and after.

X Q. 41. Do you now state that all the wells you made have been put down in the same manner?

A. This cleaning out and putting on a screen was always the same. A very few I helped to drive from the top down.

X Q. 42. When was that?

A. In the fall of '70.

X Q. 43. Do you now state that in making the wells you have given a list of in your direct examination since 1870 that you have not made any by driving or forcing an instrument into the ground until it was projected into the water in the ground without removing the earth upward, as in boring?

A. I have not without removing the dirt upward.

793 Redirect:

R. D. Q. 1. Then you swear, do you, that you in all cases remove all the dirt upward to the bottom of the drive point and as far as it is projected into the earth?

A. I always bore and remove the dirt out down into the water-bearing strata with an auger, without it is in a dug well where the earth has been taken out to the water.

R. D. Q. 2. Do you move the dirt upward down as far as the drive point penetrates into the earth?

A. We do, with a sand pump.

R. D. Q. 3. In sinking your drive point into the earth as far as you sink it and before you attach a sand pump do you remove all the earth upward as far as the point to which it was driven or forced?

A. No.

R. D. Q. 4. Do you remove any earth upward when you drive or force the point into the bottom of an open or dug well?

A. No.

R. D. Q. 5. When was it that you last repaired the well at the school-house in Independence on the west side?

A. This summer.

R. D. Q. 6. How did you take up this tube at the school-house this summer?

A. I think it was up; that is my impression. Other parties had been at it and could not fix it.

R. D. Q. 7. Can't you remember whether you took it up or not if it was just last summer that you repaired it?

A. I stated just as I thought it was; I don't remember.

R. D. Q. 8. How comes it that you forget a thing of that kind that happened last summer and are able, in reply to Mr. Lake's questions, to tell all the particulars of making wells by you years ago?

A. I don't forget it.

794 R. D. Q. 9. Now, Mr. Hovey, you say you put down the pipe in this well at the school-house the last time in the same hole it was pulled out of; now state if you was able to get that pipe back to its original position without any forcing or churning up and down, as you call it.

A. I said I put in a new pipe into the same hole the last time.

R. D. Q. 10. What was the difference, if any, in the length of the old and new pipe?

A. They were the same length.

R. D. Q. 11. Mr. Hovey, was you able to get the new pipe back into the same hole it was taken out of without any forcing or churning, as you call it, and back to the position of the old pipe?

A. It went back most down without any forcing, within a foot or two; then I put on my tongs and moved them back and forth, and put my heft on, and it went to its place.

R. D. Q. 12. Will you swear that you did not churn that pipe up and down before it went to its original place?

A. I did not.

R. D. Q. 13. Did you enter it in this hole and let it drop as you usually do?

A. I did.

R. D. Q. 14. How far was this pipe projected into the water-bearing stratum?

A. I do not know.

R. D. Q. 15 What data have you by which you determine that the wells you drove from the surface of the ground were made in the fall of 1870?

A. I have none.

R. D. Q. 16. How long was it before you went into partnership with the firm of Hovey Bros., or was it after?

A. It was before; I went in the next spring.

R. D. Q. 17. What time in the spring?

A. I think March or April.

R. D. Q. 18. Then it was in the spring of 1871 that you went into partnership with the firm of Hovey Bros., in Independence, Iowa, in manufacturing tube wells?

A. Yes, sir.

795 R. D. Q. 19. How long did that partnership last?

A. I think a little over two years; could not tell the exact time.

R. D. Q. 20. Now, give a list of the persons and the times and places when and where you put down these wells that you say you drove from the surface of the ground.

A. I have not got the list; never kept a book; I was to work for one of my brothers; I was not working for Hovey Bros.

R. D. Q. 21. If you cannot give a list, state some one or more persons for whom you put down a well where you drove from the surface of the ground.

A. I put one in a dug well.

R. D. Q. 22. How comes it that you can remember one instance of putting it in a dug well and not driven from the surface of the ground, and can't answer my question?

A. Because this was the first well I ever saw put in, and was near my place of residence; I was not hired; I just looked on and helped: I had no interest in it.

R. D. Q. 23. What time in '70 was that?

A. In the fall; early in the fall of '70.

R. D. Q. 24. How long was it after that that you drove these wells from the surface of the ground?

A. I think it was some two or three weeks before I went with him.

R. D. Q. 25. How long after the first well you saw put down that you drove these wells that you say you drove from the surface of the ground?

A. I think it was about two or three weeks before I commenced; it may be longer.

R. D. Q. 26. How many wells did you thus drive?

A. I do not know; they were in Laporte City; I put in a good many there at different times, but I don't know when they were put in; I now think of one for Carr and Gates at Laporte; it may have been the next year.

R. D. Q. 27. Was it in the fall of the year it was put down for Carr and Gates?

796 A. Yes; in October or November, I think.

R. D. Q. 28. Can't you remember the name of any other party at Laporte for whom you put in a well and drove from the surface of the ground?

—. ——.

R. D. Q. 29. About how many of that class did you put in at Laporte City?

A. I don't know as any other. I don't remember of any other.

R. D. Q. 30. Will you swear that you was ever in Laporte City putting down wells before 1871?

A. I was there in 1870 putting down wells.

R. D. Q. 31. Was you there in the fall of 1871?

A. Yes.

R. D. Q. 32. Was it in the fall of 1870 or '71 that you put down this well for Carr & Gates?

A. It was in the fall of '70.

797 R. D. Q. 33. What was there that causes you to remember that it was in the fall of '70?

A. Because I commenced on the wells with him in the fall of '70.

R. D. Q. 34. Will you swear positively that this well was put down for Carr & Gates in '70 and not in '71?

A. I will.

R. D. Q. 35. Do you swear it was put down the first time you went to Laporte to make wells?

A. I could not certainly state whether it was or not.

R. D. Q. 36. You said a moment ago you thought this well for Carr and Gates was put down in the fall of 1870, but it might have been the year after, and now you turn round and say you know it was in the fall of '70. Please explain.

A. My brother got the auger made the forenoon of that day that I put this well in; that is what makes me remember.

R. D. Q. 37. But you have no recollection of the other wells that you drove, where, for whom, & how many?

A. I do not.

Adjourned for dinner until 1.30 p. m.

798 Met, pursuant to adjournment, at 1.30 p. m., Jan. 15, '80.

R. D. Q. 38. How many wells have you put down in Johnson Co., Iowa, to your recollection?

A. Probably seven or eight; maybe more.

R. D. Q. 39. Now, how did you put down the well for Mrs. Hammond in the wood shed? Describe fully how you put down that well.

A. Well, I dug a hole for the box about 3 foot square and 5 feet deep, and then bored down, cleaned it out as usual with the sand pump, took that out and put on a screen point instead of the drive point, took out the old box that was in the old place and put it into the new hole; screwed on the pump.

R. D. Q. 40. How could you withdraw your auger after you got down a considerable depth? Was not the roof of the shanty in the way?

A. No, it was not; we removed the roof; it was just boarded; also took off the side boards to put the box in.

R. D. Q. 41. How did you force or drive or chuck down the drive point in this well?

A. I don't remember of driving at all; I don't seem to remember of either.

R. D. Q. 42. Your memory on driving, chucking, or forcing is not as vivid as it is on boring?

A. I don't remember in this case of forcing it; I might; don't remember.

R. D. Q. 43. Why do you always, when asked to state fully the manner of constructing a particular well, omit to say anything about your forcing, driving, or chucking down the pipe?

A. Because some we don't do either in.

R. D. Q. 44. Is that all the answer you can give?

A. Well, I put in so many I don't remember.

R. D. Q. 45. Now, will you swear positively—any particular tube well that you constructed from the surface of the ground in which you did not force, drive, or chuck the pipe to any degree or distance?

A. I don't remember of any particular well.

799 R. D. Q. 46. Will you swear you ever made a well in a sand or gravel formation in this manner without forcing, driving, or chucking the pipe to some degree or distance?

A. I don't remember of any well now.

R. D. Q. 47. Why is it that in all your answers to questions as to your manner of constructing wells generally and of particular wells and answers to inquiries as to particular wells you have in all cases omitted to say anything about forcing or driving the pipes or drive point, and have only stated in relation to forcing or driving when specially interrogated in that particular?

A. Because I think it is no point in the suit below the water line. I supposed when you reached the water that that was the end of your patent; that is where our patent commences, cleaning out the water bed.

R. D. Q. 48. And the reason why you have not told all you know about the construction of these wells when asked was because you thought it was not material to this case, and you have only answered as far as you deemed it material to the case?

A. I have answered all questions asked me.

Complainants rest.

Recross:

Re-X Q. 1. Now, Mr. Hovey, in these wells that you speak of making at Laporte City, in the fall of 1870, state how you know that was in the fall of 1870.

A. I know that was the fall, because I commenced the fall before I went into partnership with Hovey Bros., and that was in the spring of 1871 that I went in with Hovey Bros.

Re-X Q. 2. How do you know that you did not drive wells after that fall?

A. I know we never drove wells after we commenced to use the auger.

Re-X Q. 3. Well, how do you know that you commenced to use the auger in the fall of 1870?

800 A. I was to Laporte City and saw a man who had bored with an auger, he said, many wells. He was done putting in wells, and stated he would sell me the auger. I bargained for it and sent my brother for it. He went to the blacksmith and had it put together whilst I was putting this Carr & Gates well in.

Re-X Q. 4. In answering the questions which have been propounded to you by the counsel for the complainants in this action in regard to the methods of constructing wells have you not almost always stated that you did not drive about the water-bearing strata?

A. I did.

Re-X Q. 5. When you have been inquired of by complainants in reference to the method of constructing the well after you had bored down as far as you could have you not described to them fully the particular method used in each well inquired about?

A. I have.

(Signed) GEO. HOVEY.

Subscribed and sworn to before me by George Hovey.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

(En'd:) Filed Nov. 26, 1880. E. R. Mason, clerk.

801 Resumed the taking of testimony at the office of F. Jennings August 20th, 1879, at 10 o'clock a. m.

Q. 344. What is your name, age, residence, and occupation?

A. My name is B. R. Hovey; am 27 years old; reside at Winthrop, in Buchanan county, Iowa; am a merchant.

Q. 345. What relation do you sustain to the defendant in this action?

A. He is my father.

Q. 346. Have you assisted him in constructing wells in Iowa?

A. I helped him put in one pump; that is all.

Q. 347. For whom and when and where was it put in?

A. I can't swear who it was for; can't say when it was. It was five or six years ago. It was in Fairbanks township.

Q. 348. Was the well made at that time?

A. Yes.

Q. 349. Now, go on and describe the tools you used in putting down that well. Tell all of them.

A. In the first place we used a pitchfork to pitch straw off the ground; then we dug 5½ feet with a spade; then we bored with an auger. I don't know what size or how deep we bored; then we took a pipe and screwed a point on it to pump sand out with and put that down in the hole. We bored and put on a sand pump on top
802 of the pipe and pumped out some sand and water together;
then we drew that out and put in a pipe with a screen on the lower end of it; then we put on our sand pump again and pumped out water and let it down this — again; then we took the sand pump off and put on a curb in the hole we dug with the spade and put on a common iron suction pump; put a platform on top of the curb and screwed the pump fast to it; primed the pump and pumped some water out.

Q. 350. Did you use a sledge?

A. I think not.

Q. 351. Did you use a maul or mallet?

A. I think not.

Q. 352. Did the pipe go down any deeper than you bored?

A. I don't think it did.

Q. 353. What makes you think you did not go further with the pipe than you bored?

A. We bored down as deep as we wanted to go in the water and then put the pipe in.

Q. 354. How deep did you bore in the water?

A. I think about five feet.

Q. 355. You had no difficulty in pulling out the auger after going five feet in the water?

A. No, sir.

Q. 356. Do you remember that you bored into the water at all?

A. Yes.

Q. 357. You stated a bit ago that you did not know how far you bored; now you say you bored to water?

A. Yes. I don't know how far it was; did not measure it.

Q. 358. What kind of formation was it after you got to water?

A. It was sand; pretty coarse sand; very little clay substance mixed with it.

Q. 359. Did the hole fill up after you withdrew the auger?

803 A. Sometimes it would fill up a little. Sometimes it would fill up three or four inches, and sometimes not any.

Q. 360. You swear that after boring below the surface of the water into the water-bearing stratum composed of coarse sand that you was able to withdraw the auger sometimes without any sand falling back into the hole thus bored?

A. Not enough to amount to anything.

Q. 361. You state, do you, that boring into the water-bearing stratum five feet you finally withdrew the auger and there was only three or four inches of sand in the hole thus bored?

A. I don't know how much sand there was, but we could force the pipe into the hole. It was not packed so tight but that we could put the pipe into the hole.

Q. 362. Do you know that you did not use a maul or a mallet or a sledge in constructing that well?

A. The best of my knowledge, we did not.

Q. 363. Do you remember that you did not?

A. I don't think we did; that is all I know about it.

Q. 364. Do you remember that you did not?

A. I don't think we did; I can't say positively.

Q. 365. When you put down this pipe and attached a sand pump, and before you commenced pumping water and sand out of it, did you in any manner stay or support the pipe?

A. No, sir.

Q. 366. Was it sufficiently firm so that you could pump without any difficulty?

A. It was not solid; you would have to hold the top of the pump with one hand and pump with the other.

Q. 367. Then by simply placing your hand on the top of the pump you could pump without any difficulty?

A. Yes, sir.

804 Q. 368. It did not wabble around, did it, while you were pumping with the sand pump so as to interfere with pumping?

A. No; it wabbled around some, but kept right on pumping.

Q. 369. The sand pump operated a good deal harder when you pump sand than when you pump water, didn't it?

A. Very little.

Q. 370. When you took out the pump and put in the other pipe and pumped up some water and then pumped back did it wabble the same as before?

A. Yes.

Q. 371. Then from first to last, before you completed the well, there was a good deal of wabbling, was there not, with this pipe in the hole?

A. It might move 2 or 3 inches up when the pump is screwed on at the top.

Q. 372. Was there any wabbling in the bored hole for any distance down?

A. I don't know how far the pipe was loose in the hole.

Q. 373. How far down do you know it was loose?

A. I was not down there; I don't know anything about it.

Q. 374. What did you do with the space around the pipe in the bored hole after attaching the pump and after completing the well?

A. Didn't do anything.

Q. 375. Will you swear the bored hole was not filled up after the last pipe was put in?

A. We did not fill it.

Q. 376. You say there was about a half-inch play around the pipe in the bored hole?

A. I think the bored hole was about a half inch larger than the pipe.

Q. 377. How far was the upper perforation in the screen pipe below the surface of the ground in the bottom of the bored hole when you had completed the well?

A. I can't tell.

Q. 378. Are you well acquainted in the township where this well was put down?

805 A. No, sir.

Q. 379. Could you point out the locality where the well was put down to any one?

A. I think I could find it.

Q. 380. How deep was this well?

A. Don't know.

Q. 381. Was this the only well you ever saw Mr. Hovey put down or that you assisted in putting down?

A. I think it is. I don't remember of ever seeing him put down others.

Q. 382. Did you ever assist his brothers, who were his partners, in putting down wells?

A. I don't know of their being partners. I worked for my uncle, E. A. Hovey.

Q. 383. What years?

A. It was either in '70 or '71; in the summer.

Q. 384. Did you not know at that time that he was in partnership with your father?

A. No, sir.

Q. 385. Was not the business conducted in the name of Hovey Bros.?

A. Don't know.

Q. 386. Who paid you and who hired you?

A. E. A. Hovey.

Q. 387. Where was you putting down wells, and what kind of wells?

A. Putting down wells in this State. They call them iron wells.

Q. 388. Was they put down according to the patent under which your father has been operating in this case?

A. I don't know what the patent is.

Q. 389. Look at the patent 123,903 and say whether it was under that patent you were operating at the time.

A. Don't know.

Q. 390. Was you putting down wells in Fayette Co. at that time?

A. I think we put some down in Fayette Co. I don't know for whom.

806 Q. 391. Give the names of any parties for whom you put down wells during that time.

A. Well, sir, I don't know as I could tell a man.

Q. 392. Was your father along when any of these wells were put down, and did he assist in putting any of them down?

A. He was not along, and he did not assist.

Q. 393. How long were you engaged in the business?

A. Should think 3 or 4 months; could not say just how long.

Q. 394. What, if any, difference was there in the wells put down by you and the wells described in patent 123,903?

A. This figure (1) is used to drive; we bored instead of driving; we did not drive.

Q. 395. Will you swear that during the time you worked for your uncle you did not drive at all?

A. We never drove until we bored to the water; then sometimes we drove a foot or a foot and a half.

Q. 396. Will you swear you cannot tell the name of any person for whom you put down wells during that time?

A. I won't swear that I could not tell.

Q. 397. Tell of one person for whom you put down a well during that time, and state when and where you put it down, as near as you can?

A. We put down one for a man by the name of Ross, in this town; don't know where; we put down one for Mr. Lillie up here on his farm; don't know where.

Q. 398. Describe that well, as you know you put it down:

A. We bored down into the water, I should say, 2 feet; we could not bore any deeper; then we put on a coupling on top to drive on, and drove it about 2 feet then; then we put on our sand pump and pumped out fine sand; we pumped as we drew the pipe up, so as to loosen it up; then we took that out and put in a pipe with a screen on.

807 Q. 399. You drew the first pipe up, then, as you pumped up the sand?

A. Yes.

Q. 400. You say you done that to pump out the fine sand in proximity to the pipe?

A. We pumped up the fine sand to loosen it up.

Q. 401. Could you pump out fine sand unless the sand lay against the pipe?

A. I don't know.

Q. 402. How far up did you pull the pump and pump fine sand from the point to which you drove it?

A. We pumped the fine sand; there was about four feet.

Q. 403. Why could you not bore deeper?

A. The sand was very fine, something like quicksand but not quicksand, and would run in and fill the hole up.

Q. 404. Was not this the case from the time you struck the water-bearing stratum?

A. No, sir; the sand was coarser when we struck the water.

Q. 405. Was you able to bore the first 2 feet after you struck the water-bearing stratum so it would remain a hole?

A. It would remain a hole until we put the pipe in.

Adjourned until 2 o'clock p. m. for dinner.

2 O'CLOCK P. M.

Resumed the taking of testimony, B. R. HOVEY on the stand.

(Signed) F. JENNINGS,
Commissioner.

Q. 406. How long would such a hole remain a hole in such formation in the water-bearing stratum?

A. I don't know.

Q. 407. Have you any idea?

A. No.

808 Q. 408. Will you swear it remained until you put the pipe back again?

A. Well, I suppose the hole was full of water.

Q. 409. Will you swear it remained a hole in the sand until you put the pipe in?

A. I can't swear; I could not see right down there; I know the pipe went right down.

Q. 410. After entering the tube in the hole that was bored you let it drop to the bottom, did you not?

A. I don't remember.

Q. 411. If you did the point in going down would be very likely to detach the earth at the sides of the hole in sufficient quantity to partially fill the hole, would it not?

A. I don't know, but I should not suppose it would.

Q. 412. Why should you not suppose that if the tube was dropped some distance into the hole that it would not detach dirt from the sides of the hole?

A. The reason is, as I look at it, that the rod would be full as heavy as the dirt, and would reach the bottom full as quick.

Q. 413. Then it is likely that considerable of the dirt that would be detached would fall in round it and not go to the bottom?

A. Well, sir, I don't know.

Q. 414. Well, what is your best judgment in the matter?

A. I don't think there would be enough detached to amount to anything.

Q. 415. What makes you think so?

A. I don't think a straight rod dropped into a straight hole would detach a great deal of dirt; I don't know how it would.

Q. 416. Suppose there would be some crook in the hole or rod, then how would it be?

A. If it was very crooked, then the rod would stop and not go to the bottom.

Q. 417. Suppose it was just crooked enough to strike the sides, then how would it be?

809 A. Don't know.

Q. 418. Witness here shown figures 1 and 2 in patent 123,903 and asked how much greater is the diameter of the swell on the pipe, just above the point, than the pipe?

A. I don't know; I can give no idea.

Q. 419. Was it ½ inch greater in diameter?

A. Can't say.

Q. 420. Was it ¼ of an inch larger?

A. I don't know.

Q. 421. Did you carry a knuckle with you to use in driving the tube?

A. We carried a coupling to screw on top of the pipe.

Q. 422. Did you carry this for the purpose of driving the tube?

A. That is what we used it for.

Q. 423. What did you use for driving the tubes?

A. I don't know but that we ever done but one at a time.

Q. 424. What did you use for driving tubes when you were making wells?

A. Hammer.

Q. 425. How large a hammer?

A. I should think from 6 to 8 pounds.

Q. 426. Did your father have such a hammer when you put down the wells you referred to this morning?

A. Well, I don't know; I don't remember of seeing any.

Q. 427. Did you have this knuckle or driving section you speak of?

A. Don't know.

Q. 428. Did you put down this well for Lillie when you were working for your uncle?

A. Yes, sir.

Q. 429. About how many years ago was that?

A. Eight or nine years ago; it was either in '70 or '71.

Q. 430. What time in the year?

A. Don't know; it was some time in the spring or summer.

810 & 811 Q. 431. What other well did you help him put down, and for whom?

A. Think we put one down for Ross, on the west side of the river, in this city.

Q. 432. Well, state how you put that down.

A. We bored down; I don't remember whether we put the drive head or not; it was a nice place to make a well, and I don't know whether we drove or not.

Q. 433. Who else was with you at this time helping to construct these wells at the time you were working for your uncle, E. A. Hovey?

A. D. W. Hovey.

The counsel for defense is to have the privilege of cross-examining this witness if he desires upon giving the counsel for complainant reasonable notice.

X Q. 1. Did you have any interest in the business of putting in wells except as an employer of your uncle at the time you were working for him?

A. No, sir.

X Q. 2. Did you take any orders or take any contracts to put in wells?

A. No, sir.

X Q. 3. Did you keep any books or memorandum of the wells that were put in?

A. I did not.

X Q. 4. How long did you work for your uncle—putting in wells?

A. I should think three or four months; don't know just how long; can't tell.

(S'g'd) B. R. HOVEY.

Subscribed and sworn to before me by the said B. R. Hovey.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

812 ANTON HAGEMAN, being produced, sworn, and examined on the part of complainants, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Anton Hageman; am 45 years old; reside in Independence; am a hotel keeper.

Q. 2. Mr. Hageman, how many wells have you?

A. Two.

Q. 3. Have you owned any others within the last eight years?

A. No, sir.

Q. 4. Who put down the wells that you have got?

A. Mr. Lester put down one of them and one Mr. Elias Hovey.

Q. 5. Did you see the one Hovey put down when it was put down?

A. No, sir.

Q. 6. What kind of a well is it?

A. An iron tube with a pump on top of it.

Q. 7. When was it made?

A. I think it was in July, 1868.

Q. 8. Are you using it now?

A. Yes.

Q. 9. Who made it over and when?

A. Mr. Elias Hovey, about two to four years later.

Q. 10. Was you present when he fixed it over?

A. No, sir.

Q. 11. You say it is a tube in the ground?

A. Yes, sir.

Q. 12. The earth fits right around this tube, does it?

A. Yes, sir; I suppose so.

Q. 13. Does the tube form a lining of the well?

A. Yes, the dirt comes up close against it; there is no space round the pipe.

Q. 14. Who was with Mr. Hovey when he fixed it over?

813 A. Could not say; suppose he had a man with him.

Q. 15. What did you pay Mr. Hovey for fixing this well over?

A. I think I paid him $6.00; that is my impression.

Q. 16. What kind of a well did Mr. Hovey call this when it was made?

A. I think he called it an iron well.

Q. 17. What is your other well?

A. A well drilled in rock.

X-examined:

X Q. 1. Did you ever examine the well put in by Elias Hovey?

A. I don't know as I did in particular.

X Q. 2. What is the diameter of the well at the surface of the earth?

A. Should think it was 3 feet square.

X Q. 3. How deep is that size?

A. About five or six feet, thereabout.

X Q. 4. Does water stand in that space?

A. Sometimes, not always.

X Q. 5. Did you ever examine that well below this dug space?

A. No, sir.

X Q. 6. Do you know how large a hole was made in which the tube was placed?

A. No, sir.

X Q. 7. Do you know how deep the well is from the surface?

A. Yes, sir; I paid him for 16 feet; that is all I know about it.

Redirect:

R. D. Q. 1. You say that the water did not rise into this dug hole until after the mill-dam was built?

A. Yes, sir.

(Signed) ANTON HAGEMAN,

Subscribed and sworn to before me by A. Hageman.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

Filed Nov. 26, 1880. E. R. Mason, clerk.

814 A. H. Trask, being produced, sworn, and examined on the part of the complainants, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

Ans. My name is A. H. Trask; am 51 years old; reside at Independence, Iowa; am a liveryman.

Int. 2. Mr. Trask, go on and state what conversation you had with Mr. Hovey since you came into this room.

Ans. He said to get my pay.

3. Do you own a well?

Ans. Yes; a number of them.

4. How many?

Ans. Six or seven.

5. Have you been talked to by the def't as to what your testimony should be since the subpœna was served on you?

Ans. I have not seen him until I came into this room; had no conversation with him.

815 6. When and by whom were these wells you own constructed?

Ans. I bought a farm at Hazelton. There was a well on it. I don't know what kind of a well it was.

7. Did you use that well?

Ans. I rented the place to a man and he rented the pump of Davis.

8. Did your renters use the well on the farm you bought?

Ans. I think so.

9. How long did they *they* use it?

—. I don't recollect; I think a year or two.

10. State what you know about who put it down.

Ans. I don't know.

11. What kind of a well was it?

Ans. They made plank and I never looked into it.

12. Was it a dug or a tube well?

Ans. I did not think it was a dug well.

13. Has it since been taken out?

Ans. Yes, sir.

14. Was you there when it was taken out?

Ans. No.

15. Was there any lining to the well pit, except the tube?

Ans. I don't know.

816 16. What kind of a well did you learn that it was?

17. It was, I learn, a drive- or bored well.

18. Did you learn who put it down?

Ans. I don't know who put it down, but Davis claimed the pump, and I suppose he put it down.

19. What other well have you?

Ans. I have one——

20. When and by whom?

Ans. H. S. Cole; 2 or 3 years ago.

21. How did he put it down, Mr. Trask?

Ans. I could not tell you.

22. What kind of a well is it?

Ans. Can't tell.

817–820 23. What kind of a well do you suppose it is?

Ans. Well, I suppose it was a bored well.

24. Did you ever examine it to see?

—. No.

25. Tell me — the location of this well you had put down is?

Ans. Five and six, in block 7, in Clark's addition to Independence.

26. Have you ever seen Geo. Hovey put down any wells?

—. No, sir.

27. This well put down by Cole is used by your tenants?
—. Yes, sir.

1. Do you know anything about the well put in by H. S. Cole on the premises described except what some other person told has you?

Ans. No, sir.

(S'g'd) A. H. TRASK.

Subscribed and sworn to before me by A. H. Trask.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

821 THURSDAY, *August* 21*st*, 1879.

Resumed the taking of testimony at 10 o'clock a. m.

D. W. HOVEY, being produced, sworn, and examined on the part of the complainants, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is D. W. Hovey; am 29 years old; reside at Winthrop, Buchanan county, Iowa; am a merchant.

Q. 2. What relation do you sustain to the defendant in this case?

A. He is my father.

Q. 3. Have you been engaged in any way with your father in manufacturing wells in Iowa?

A. I think I have assisted him in putting in wells.

Q. 4. Have you been engaged with or assisted the Hovey Bros. in making wells in Iowa?

A. I was hired by E. A. Hovey, and I supposed to work for Hovey Bros.

Q. 5. Was he a member of the firm of Hovey Bros. at that time?

A. I suppose he was; I could not swear he was.

Q. 6. Did not your advertisement at that time and your inscription on the wagons read "Hovey Bros., manufacturers of iron wells?"

A. No, sir.

Q. 7. What was the advertisement you used at that time or inscription on the wagons?

A. Hovey Bros., iron wells, Independence, Iowa.

Q. 8. Was your father, the defendant in this case, a member of the firm of Hovey Bros. at that time?

A. I do not know.

Q. 9. Did you ever hear him say he was or that he had any connection with the business?

A. I think not.

Q. 10. Did he ever pay you for the work you done or any part of it?

822 A. No, sir.

Q. 11. Was he working with them any of this time that you were with them?

A. He had charge of one of the wagons.

Q. 12. What part of the business did your father attend to?

4. How many?

Ans. Six or seven.

5. Have you been talked to by the def't as to what your testimony should be since the subpœna was served on you?

Ans. I have not seen him until I came into this room; had no conversation with him.

815 6. When and by whom were these wells you own constructed?

Ans. I bought a farm at Hazelton. There was a well on it. I don't know what kind of a well it was.

7. Did you use that well?

Ans. I rented the place to a man and he rented the pump of Davis.

8. Did your renters use the well on the farm you bought?

Ans. I think so.

9. How long did they *they* use it?

—. I don't recollect; I think a year or two.

10. State what you know about who put it down.

Ans. I don't know.

11. What kind of a well was it?

Ans. They made plank and I never looked into it.

12. Was it a dug or a tube well?

Ans. I did not think it was a dug well.

13. Has it since been taken out?

Ans. Yes, sir.

14. Was you there when it was taken out?

Ans. No.

15. Was there any lining to the well pit, except the tube?

Ans. I don't know.

816 16. What kind of a well did you learn that it was?

17. It was, I learn, a drive- or bored well.

18. Did you learn who put it down?

Ans. I don't know who put it down, but Davis claimed the pump, and I suppose he put it down.

19. What other well have you?

Ans. I have one——

20. When and by whom?

Ans. H. S. Cole; 2 or 3 years ago.

21. How did he put it down, Mr. Trask?

Ans. I could not tell you.

22. What kind of a well is it?

Ans. Can't tell.

817–820 23. What kind of a well do you suppose it is?

Ans. Well, I suppose it was a bored well.

24. Did you ever examine it to see?

—. No.

25. Tell me — the location of this well you had put down is?

Ans. Five and six, in block 7, in Clark's addition to Independence.

26. Have you ever seen Geo. Hovey put down any wells?

—. No, sir.

27. This well put down by Cole is used by your tenants?
—. Yes, sir.

1. Do you know anything about the well put in by H. S. Cole on the premises described except what some other person told has you?

Ans. No, sir.

(S'g'd) A. H. TRASK.

Subscribed and sworn to before me by A. H. Trask.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

821 THURSDAY, *August* 21*st*, 1879.

Resumed the taking of testimony at 10 o'clock a. m.

D. W. HOVEY, being produced, sworn, and examined on the part of the complainants, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is D. W. Hovey; am 29 years old; reside at Winthrop, Buchanan county, Iowa; am a merchant.

Q. 2. What relation do you sustain to the defendant in this case?

A. He is my father.

Q. 3. Have you been engaged in any way with your father in manufacturing wells in Iowa?

A. I think I have assisted him in putting in wells.

Q. 4. Have you been engaged with or assisted the Hovey Bros. in making wells in Iowa?

A. I was hired by E. A. Hovey, and I supposed to work for Hovey Bros.

Q. 5. Was he a member of the firm of Hovey Bros. at that time?

A. I suppose he was; I could not swear he was.

Q. 6. Did not your advertisement at that time and your inscription on the wagons read "Hovey Bros., manufacturers of iron wells?"

A. No, sir.

Q. 7. What was the advertisement you used at that time or inscription on the wagons?

A. Hovey Bros., iron wells, Independence, Iowa.

Q. 8. Was your father, the defendant in this case, a member of the firm of Hovey Bros. at that time?

A. I do not know.

Q. 9. Did you ever hear him say he was or that he had any connection with the business?

A. I think not.

Q. 10. Did he ever pay you for the work you done or any part of it?

822 A. No, sir.

Q. 11. Was he working with them any of this time that you were with them?

A. He had charge of one of the wagons.

Q. 12. What part of the business did your father attend to?

A. While I was with him he made the contracts for putting in the wells.

Q. 13. How long did you work with the firm of Hovey Bros. in the constructing of wells in Iowa, and give the dates as near as you can?

A. I worked for E. A. Hovey a part of four summers; I never knew anything more about the firm than these advertisements on the wagons.

Q. 14. How long did you work for the firm of Hovey Bros., or while they were engaged with your father in manufacturing wells.

A. I worked for E. A. Hovey part of four summers; part of the time I was with him, and part of the time I was with my father.

Q. 15. How long did you work for the firm of Hovey Bros.?

A. I was never hired by such a firm.

Q. 16. Did E. A. Hovey tell you when he hired you that he was hiring you for himself or for the firm of Hovey Bros.?

A. No, sir.

Q. 17. Did you receive all your pay from him or from the other brothers?

A. I received it from him.

Q. 18. How long did you work in putting down these wells while the business was advertised Hovey Bros. on the wagons?

A. Don't know, but think it was a part of three summers.

Q. 19. What years were these?

A. Don't remember.

Q. 20. Got any books or memorandums by which you can tell?

A. No, sir.

Q. 21. Was it since the spring of '71 or before?

823 A. Think I commenced to work before that.

Q. 22. Was it since or before the spring of '71 that you worked these parts of these summers while the business was being advertised as Hovey Bros.?

A. Don't remember.

Q. 23. How old was you when you commenced working and how old was you when you quit working while the business was being done by Hovey Bros.?

A. Don't remember.

Q. 24. How many years ago was it?

A. It was more than three years ago from the present date.

Q. 25. How much more than three years?

A. Don't remember.

Q. 26. What years was it that you worked under such circumstances—manufacturing wells?

A. Don't remember.

Q. 27. How long did you work for your father at manufacturing wells in Iowa?

A. Never worked for him; I was with him part of one summer.

Q. 28. You did not understand, then, that you was working for your father when you was working with him?

A. No, sir.

Q. 29. For whom did you understand you were working?

A. E. A. Hovey.

Q. 30. Was the business at that time being conducted in the name of Hovey Bros.?

A. All I know of the business was what I had charge of; I think all the notes I took was took in E. A. Hovey's name, and all the business I had anything to do with.

Q. 31. In whose name was the business advertised in on the wagons at this time?

A. The printing on the wagons was Hovey Bros., iron wells, Independence, Iowa.

Q. 32. When was this?

A. I don't remember the date.

Q. 33. About how long ago was it?

A. Oh, I should say it was 5 or 6 years ago.

824 Q. 34. Who was your father working for at that time?

A. Don't know; did not ask him who hired.

Q. 35. Was he hired by any one, or was he working for himself?

A. I do not know.

Q. 36. What part of the business did he attend to?

A. While I was with him he took the contracts for putting in the wells.

Q. 37. Was the contracts in writing or made orally?

A. I never saw any in writing; suppose they were orally.

Q. 38. In whose name was they made, and in whose behalf?

A. I do not know.

Q. 39. Did you ever hear — one made?

A. I have made them, and, of course, I would hear — them.

Q. 40. In whose name was the contracts made that you say your father took, or in whose behalf?

A. I don't remember of ever hearing him make a contract.

Q. 41. How do you know, then, that he made contracts?

A. He came and told us where to put in the wells.

Q. 42. Who came and told you where to put in the wells?

A. Father, or the man we were to work with.

Q. 43. Who would tell you where to put in the wells—your father or the man you were putting them down for?

A. Father would tell us who to put them down for and the man would tell us where to put them down.

Q. 44. Then simply because your father told you where to put them down, and you say he made contracts for putting down wells?

A. No; I don't.

825 Q. 45. What other reasons have you for saying your father made contracts for putting down wells?

A. There was sometimes a specified price.

Q. 46. Is your memory good or bad?

A. In regard to dates and uninteresting subjects I don't think it is anything extra.

Q. 47. Did E. A. Hovey work with you while you was working with your father?

A. No, sir.

Q. 48. When you were working with your father was there any money paid down for the making of wells?

A. Yes, sir.

Q. 49. To whom was it paid?

A. If we were both present sometimes it was paid to him and sometimes it was paid to me.

Q. 50. What did you do with it when it was paid to you?

A. While working with father a portion of it was paid for incidental expenses; the balance of it was turned over to him.

Q. 51. Did you ever render an account to E. A. Hovey of the money you had received and turned over to him?

A. At the close of the season I turned over my books to him, which had an account of all dealings and transactions.

Q. 52. Did you render to E. A. Hovey an account of the money you had received and turned over to your father during this time?

A. Not separate from the books.

Adjourned until 2 o'clock p. m. for dinner.

2 O'CLOCK P. M.

Resumed the taking of the testimony, D. W. HOVEY on the stand.

Q. 53. Did you put it in the book, the amount you received and turned over to your father?

A. Yes.

826 Q. 54. In what counties were you engaged with your father in putting down wells?

A. Muscatine county, Louisa county, and guess we put some in in Washington; presume there were other counties.

Q. 55. What other counties?

A. Could not swear that we put in any in any other county, although I presume we did.

Q. 56. Did you put any in in Buchanan county?

A. Don't remember whether we did or not while I was with him.

Q. 57. What counties did you put in wells while you were with Hovey Brothers or under that name?

A. Don't remember of putting in any wells with Hovey Brothers.

Q. 58. Who was with you putting down wells before you went with your father?

A. E. A. Hovey.

Q. 59. Who else?

A. John Sankey, James Brace, a young fellow by the name of —— Slack; forgotten his name; don't remember of any one else.

Q. 60. Did E. S. or Geo. Hovey assist during this time or any part of it?

A. They were not with us; they never assisted us.

Q. 61. State in what way they were connected with the business at that time or what they done in connection with it?

A. I suppose they were putting in wells, although I know nothing definite about it.

Q. 62. Well, tell all you know about it.

A. I don't remember anything definite about it.

Q. 63. Tell all you know generally about it.

A. Well, I suppose they were putting in wells during a part of that time.

Q. 64. State what makes you suppose so.

A. Well, they started out for the southern part of the State with a wagon and outfit.

Q. 65. What advertisement did they have on their wagon?

827 A. I think it was Hovey's iron wells; it might have been Hovey Bros.' iron wells, Independence, Iowa.

Q. 66. What makes you think it was Hovey's iron wells instead of Hovey Bros.' iron wells?

A. Because they had a wagon painted that way, and I think that is the one they took with them that time.

Q. 67. Did you understand that the brothers were acting on their own account or in partnership?

A. I knew nothing about it.

Q. 68. And you never heard whether they were in partnership?

A. No, sir.

Q. 69. Was you of age at these times you speak of in manufacturing wells?

A. I think I was; I might not have been at first.

Q. 70. When you went with your father was it at the first or the last?

A. It was near the last.

Q. 71. Now go on and state fully what tools you had in constructing these wells, and give a full description of them.

A. We had an auger (a 3-inch auger); to this we had gas-pipe attachments so that we could lengthen it out 30 feet in length if necessary; had a tin sheath to slip down on the pod of the auger. On one of the sections there was a handle by which to turn it; the sections were about four foot long to attach to the auger. We had four or five pair of gas-pipe tongs of different sizes; we had what we call a drive point, the same as represented in figure No. 1 in Hovey's patent. We had two monkey-wrenches, gas-pipe cutter, set of dies for cutting thread on gas pipe, one cast sledge that weighed about 12 pounds, and sand pump.

Q. 72. What was the sledge for?

828 A. We often used the sledge to settle the box down upon which the pump stands, and to settle the pipe down before putting the pump on at the last.

Q. 73. Just before you put the water pump on you used the sledge to settle it down?

A. Yes; sometimes it would be a little high.

Q. 74. You did not use the sledge to drive the drive point before you put the sand pump on?

A. Sometimes we did.

Q. 75. Which would you send the deepest—the drive point or the screen point?

A. The drive point.

Q. 76. Would a hole made by the drive point fill up so, after withdrawing the same, that you would have to use a sledge to settle the screen point in its place or where you wanted it?

A. No; I don't think it was ever really necessary to use the sledge in putting down the screen point.

Q. 77. What did you use it for, then?

A. I always thought it worked better by hitting with the sledge, a few times, the screen than by shoving it right down.

Q. 78. A few taps would send it down quite a ways, would it not?

A. It would unless they were very light.

Q. 79. Why would the pump work better if you had driven the screen point some?

A. In passing the pipe down through the hole the screen might strike some clay substance which would partially fill up the holes in the screen; then hitting it a few times with the sledge would start the clay substance off and give the water a chance to get into the pipe.

Q. 80. Is this all the reason you can give?

A. Don't think of any other.

Q. 81. This is only guess-work with you, is it not?

A. That what I have sworn to positively I know.

Q. 82. You swear positively then, do you, that this is the reason?

A. Those are reasons why we use the sledge.

Q. 83. You swear positively, then, do you, that the clay
829 sometimes gets against the screen, and that by driving it with
a sledge into the sand or gravel the screen is freed from the
clay?

A. My answer to that is that the screen sometimes comes in contact with clay; the balance of the question I answer, Yes.

Q. 84. How do you know that the screen comes in contact with the clay?

A. Sometimes in boring down the screen it comes in contact with clay and fills the meshes of the screen.

Q. 85. How do you know it fills the meshes of the screen with clay?

A. In shoving down the screen to its position and trying to pump water it shows that something is wrong—that the meshes must be filled with clay.

Q. 86. Then by driving it further down you find it pumps better?

A. By hitting it a few times with the sledge it seems to start the clay of the screen and it pumps free.

Q. 87. How do you know the clay is there and how do you know that driving starts it off?

A. We have taken them out before driving and found the clay. We bored down preparatory to putting in the well; put down the drive point, pumped out the fine sand. We put down our screen, which came in contact with a strata of clay, through which we had bored, and filled the meshes of said screen full; shoved it down to position; put on our pump; found we could draw no water; removed the pump, tube and all, and found the screen as stated; we then put the pipe back to its position; drove it a little with the sledge; put on our pump, which worked nicely.

In pumping we found it would pump fine sand; we withdrew the pipe; found no clay upon the screen; we found a small fracture in the screen, which let in the sand; we removed the screen and put on another.

830 Q. 88. Did you take them out after driving them, after there had been some on, and found there was none on?

A. Yes.

Q. 89. Do you distinctly remember an instance of this kind?

A. I think I do.

Q. 90. State, if you can, when, where, who was present, and at whose premises it was that this particular instance that you remember occurred?

A. Don't remember the date; it was in Illinois, in Whiteside county, near Tampico; a young fellow by the name of Johnson and a man for whom we was putting down a well.

Q. 91. Now, state just what was done on that occasion.

A. ——.

Q. 92. About when was this done in Illinois—before or after you worked here in Iowa?

A. It was after we had worked in Iowa.

Q. 93. How much deeper do you drive the drive point that you first put in than you do the screen point that you put in at the last?

A. I have driven them from a foot to 30 feet; don't intend to drive them over ten feet.

Q. 94. Under what circumstances have you driven them 30 feet, and when and where?

A. If we consider the sand too fine we drive it down to find coarser sand; failing to do this, we place the screen where we first prepared; that was in Whiteside county, Illinois.

Q. 95. How deep is the deepest you have driven it in Iowa?

A. I don't think I ever drove over ten feet.

Q. 96. If you would find coarse sand at 10 feet by driving, you would withdraw the drive point and insert in lieu thereof the screen point, placing it down to within a foot or two of the bottom of a hole made by the drive point?

A. Yes; after pumping out the fine sediment.

831 Q. 97. If you bored down to the water-bearing stratum and you find the fine sand, do you use the drive point until you got down to a coarser bed of same?

A. No; we don't always drive to a coarser strata.

Q. 98. Why not?

A. We often find clay under the fine sand.

Q. 99. Then what do you do?

A. Most always give it up, and don't make a well.

Q. 100. After boring down to the water-bearing strata do you use the drive point when you have reached fine sand in order to go through the fine sand until you have reached a coarser stratum of sand or a stratum of gravel?

A. We do, unless we can bore; when there is a little clay mixed with the sand we can often bore 6 or 8 feet into water-bearing strata.

Q. 101. Will you swear that you can bore eight feet into the water-bearing strata and withdraw your auger by any process used by you in constructing wells?

A. I can when there is clay enough mixed with the sand to keep it from filling up the hole after withdrawing the auger.

Q. 102. What proportion of clay must there be mixed with the sand in order to bore a hole in the water-bearing stratum that will remain a hole any length of time?

A. Just enough to keep it from caving in.

Q. 103. What proportion of clay must there be mixed with the sand in a water-bearing stratum to enable you to bore a hole in it that will not immediately fill up?

A. I think every alternate inch.

Q. 104. Can you make a well with a screen pipe in such a stratum of earth?

A. A tube well of the kind we made, it would not.

Q. 105. When you bore down to the water-bearing strata and find a stream of fine sand what do you do next?

A. We bore as far as we can and then insert the drive point.

832 Q. 106. Did I not understand you a moment ago that unless every alternate inch of the strata was clay that the hole would immediately fill up after boring?

A. It will fill up to a certain extent, but it will not be as solid as it was before boring.

Q. 107. How far into the fine sand can you bore in the water-bearing strata?

A. I think about 4 feet.

Q. 108. What is your object of boring into it if it fills up immediately?

A. It loosens up the sand and it is easier to insert the drive point.

Q. 109. Do you have any difficulty in driving the drive point through the fine stratum of sand?

A. No; no difficulty in driving it down.

Q. 110. Is it not pretty hard work boring through a stratum of fine sand in the water?

A. It is not difficult to run the auger down through the sand 3 or 4 feet, but it would be difficult to remove the sand and leave a hole.

Q. 111. Does not fine sand when moved in water or *stoned* up immediately settle back to its former density?

A. Not if moved from its natural bed in the earth; it would if it had been moved in the bed of a river.

Q. 112. If you have no difficulty in driving through the fine sand in the water, what do you bore for?

A. It loosens up the sand so that you can often slip the drive point to its position without driving it.

Q. 113. Describe how you slip it to its position.

A. The sand is perfectly loose from boring, or naturally so in the water-bearing strata; by putting the drive point on a tube it will often settle down of its own weight as far as you want it.

Q. 114. Will you swear that you ever bored 4 feet into the fine sand in a water-bearing stratum, and that a drive point would go that distance after withdrawing the auger of its own weight?

A. No.

833 Q. 115. How far would it go with its own weight in this 4 feet thus bored in the fine sand in a water-bearing strata?

A. It might go down 3 or 4 inches; very fine sand it might go down a foot.

Q. 116. Then in order to get the drive point down as far as you had bored in the water-bearing stratum you would have to use some additional force, more than the weight of the drive point?

A. Yes.

Q. 117. What was your usual custom during the time you were making these wells in connection with your father, the defendant, as to the depth you would drive or force the drive point?

A. After inserting the drive point and shoving it down as far as we can in the hole we bored in the water-bearing strata; we would force the tube down so the lower end of it would be about six feet from the surface of the water.

Q. 118. You say before driving it you would settle it down as far as you could. What do you mean by settling it down as far as you could?

A. After inserting the tube we would throw the weight of one or two men on the tube so as to force it down.

Q. 119. About what would be the weight of 25 foot of this tubing with the point attached?

A. I don't know.

Q. 120. What was the size of this pipe that you used?

A. One and one-fourth inch inside and from one and one-half to one and *one* three-quarter inches on the outside.

Q. 121. How large in diameter would it be at the knuckle or joint?

A. About 2¼ inches.

Q. 122. How much would be the diameter at the swell above the point?

A. About 2¼ inches.

Q. 123. Did you not generally use a 2½-inch auger in boring these holes?

834 A. I think the auger we always used was 3 inches.

Q. 124. Are you sure of this?

A. No; I am not sure.

Q. 125. Would not a 3-inch auger after being used awhile be reduced in size?

A. Yes.

Q. 126. Were there not some place that you made wells, where the ground was sand and gravel and loose, that you would do more driving than you would boring?

A. No.

Q. 127. Why was you always so particular to bore to water if the earth was loose and the point could be easily driven?

A. That was my instructions from the man that employed me.

Q. 128. Did he tell you why?

A. Well, I think he did, but it is so long ago I don't remember.

Q. 129. Will you swear that you always bored till you got to water?

A. I always did but once that I remember of.

Q. 130. When and where was that?

A. That was the first work I did for E. A. Hovey; I think in the fall of 1870, in Buchanan Co., for a man by the name of Reed.

Q. 131. What did you do in that case?

A. If I remember right, I bored down a little ways, inserted a tube, and drove the drive point down to its place in the water-bearing strata.

Q. 132. Describe the place or location in Buchanan Co. where you put down that well.

A. About 7 miles northwest from the center of the county; I thing it is in Washington t'p.

Adjourned until 8.30 a. m., August 22, 1879.

835 FRIDAY, *August* 23, *A. D.* 1879.

Resumed the taking of testimony at 8.30 p. m.

Q. 133. Was one of the reasons for boring down in the water-bearing strata and not driving that it would be an infringement of another patent to drive about the water-bearing stratum?

A. I think I was never told so.

Q. 134. Did you know that that was one of the reasons?

A. No, sir.

Q. 135. Was that one of your reasons?

A. No, sir.

Q. 136. Did you ever hear any reasons given by the persons you were employed for driving it?

A. Yes.

Q. 137. State what they were.

A. It was easier to put the rod down by boring a hole than it was to drive it.

Q. 138. Any other reasons?

A. It was easier to remove the rod. I don't remember of any other reasons.

Q. 139. Why did you drive the first well and not bore it?

A. We did not have our auger with us.

Q. 140. Did you make a good well?

A. Yes.

Q. 141. How far or about how far did you drive above the water-bearing stratum?

A. About 15 feet.

Q. 142. Did you use the same pump?

A. Yes, sir.

Q. 143. What makes you think this was in the fall of 1870?

A. Because it was the first work I did in putting down wells?

Q. 144. Do you remember the date of the first work you did for putting down wells for the company?

A. No, sir.

Q. 145. Do you remember the date of your first putting down wells?

836 A. I think it was in the fall of 1870.

Q. 146. What have you by which you remember it was in the fall of '70.

A. It was in the fall of the summer I spent in Dakota.

Q. 147. Have you got anything by which you remember the year you were in Dakota definitely?

A. I have not anything with me.

Q. 148. Have you anything by which you can tell definitely?

A. I think I have letters which were written to me while I was there.

Q. 149. Will you produce those letters?

A. I don't object to those being produced.

Q. 150. Will you produce them?

A. Not unless they subpœna me.

Q. 151. Was you of age the summer you were in Dakota?

A. I think I was 20.

Q. 152. Do you know how old you was then?

A. I think I was 20 years old.

Q. 153. Do you know how old you were?

A. I would not state positively, but I think I was 20 years old.

Q. 154. What advertisements was on your wagon then?

A. Never saw the wagons until I returned from Dakota.

Q. 155. What advertisements were on the wagons that you used in making these drive wells?

A. Was not employed in the well business while in Dakota.

Q. 156. What advertisements were on the wagon when you put down this first well?

A. It was either Hovey's Iron Wells or Hovey Bros.' Iron Wells, I don't remember which.

Q. 157. What year did you quit making these wells?

A. Don't remember; think it was in '74 or '75.

Q. 158. Now you may go on. State fully just how you put down this first well you say you drove.

837 A. We dug a hole five feet deep, put the drive point on a piece of pipe, drove it down to the required depth, put on a sand pump and pumped out the fine sand close to the drive point, then pulled it out and put on a screen point, put it back so that the screen point was where we had cleaned out with the drive point, put a curb into the five-foot hole we had dug, then put on our pump and pumped water.

Q. 159. In that case did the tube form the lining of the well, and was it attached to the pump by an air-tight connection?

A. Yes.

Q. 160. What is the usual depth that you place the upper perforations or openings in the screen pipe below the surface of the earth in the bottom of the bored hole?

A. About 2½ feet.

Q. 161. What is the object in doing this?

A. That we may have plenty of water to supply the pump.

Q. 162. Does the water flow directly from the water-bearing stratum into the screen pipe when thus placed?

A. Yes.

Q. 163. When you bore into a stratum of mixed sand and clay in the water-bearing stratum and a hole remains after withdrawing the auger, would not a screen pipe placed in such a hole afford just as much water as it would if the sand and gravel was packed all about it, and work just as well?

A. I never made that experiment and don't know.

Q. 164. If you found plenty of water in such a hole why do you force or drive the pipe a number of feet below the bottom of the same?

A. We drive to get a coarser stratum of sand and gravel and a better flow of water.

Q. 165. Go on now and give the names of all the persons, as near as you can, for whom you put down wells or assisted in putting down wells while working with your father, the defendant.

A. I don't now remember the name of any man while working with him.

838 Q. 166. Have you anything by which you could tell the names?

A. No, sir.

Q. 167. About how many did you assist in putting down with the defendant?

A. I think about 50; there may have been more or there may have been less.

Q. 168. And you now say you can't remember one?

A. I don't remember at present any of the names.

Q. 169. Describe the localities, as fully as you can, where you assisted in putting down wells with defendant.

A. We were in the western part of Muscatine county, the northern part of Louisa county; think we put in some in Johnson county and Washington county.

Q. 170. Give me the names of any persons for whom you assisted in putting down wells under your contract with E. A. Hovey and while the advertisements on the wagons were in the name of Hovey Bros.

A. We put down a well for Mr. Lillies, Mr. Ross; don't remember of any one else at present.

Q. 171. About how many wells did you assist in putting down while so engaged?

A. About 500; there may have been more, there may have been less.

Q. 172. And you can only remember the names of two out of all that number?

A. I don't now remember, except Mr. Reed, for whom we put down the first well.

Q. 173. What time did you put down Lillies' well?

A. Don't remember.

Q. 174. How long after you commenced to work?

A. Don't remember.

Q. 175. Have you no idea?

A. No; I have not.

Q. 176. Describe just how you constructed Lillies' well.

839 A. We bored down into the water-bearing stratum as far as we could and inserted our drive point; settled it down to the required depth, pumped out the fine sand and sediment, and then removed the drive point; then put down the screen and attached in the place prepared for. We then dug a hole 4 or 5 feet, put in a curb platform; on top of said curb put on our pump and pumped water.

Q. 177. Why, in giving this answer, have you said nothing about driving?

A. Because I do not remember that we drove any.

Q. 178. Why is — that you remember all the other details and don't remember this?

A. Because it is a process that we always went through with, except the first well I put down, and when we put them into bored and dug wells in those cases we omitted the boring.

Q. 179. Then you pretend to say now, do you, that you never do any driving except in the two cases of wells you have named?

A. We never drove above the water-bearing strata; but it is sometimes necessary to drive the drive point a little below where we bored.

Q. 180. Then you never drove except in the 2 cases of wells mentioned by you in answer to interrogatory 178?

A. Not above the water-bearing stratum.

Q. 181. Tell a case in which it is not necessary to drive or force the tube in order to make one of these wells after you have bored down to the water-bearing strata.

A. I don't remember any particular well, but I have bored down to the water-bearing strata, inserted the drive point with a tube attached, and two of us taking hold of the rod and move it up and down until it was settled to the required depth without striking it a blow; and I think Mr. Lillies' one of this kind.

Q. 182. Did you force down the pipe in the case you have just named?

A. I think we did as stated.

840 Q. 183. Did you ever construct one of the wells without driving or in some way forcing the pipe into the bottom of the bored hole?

A. I think I have constructed a well in this way, where all the force that was applied to it was the weight of the rod and its momentum while passing down to the water-bearing strata; this settled it to its position without any other force.

Q. 184. Do you remember any other instance except this one?

A. I don't remember any other instance.

Q. 185. Have you named any instance yet where you have not used force?

A. Not where there is not any force used.

Q. 186. Do you remember of any other instance than the one you have named where no other force was used than the weight and momentum of the drive point falling into the water-bearing stratum?

A. It was a common occurrence where it was deep from the surface of the earth to the water.

Q. 187. Why did you answer as you did in reply to interrogatory 183 if it was your usual custom, where wells were deep, to not drive or force the rod except by its own weight or momentum falling into the water-bearing stratum?

A. I answered it that way because it was so.

Q. 188. Do you swear that it was your custom in constructing these wells where they were deep to simply insert the drive rod and let it fall from the top or near the top of the hole into the water-bearing stratum, and then complete the well without any other forcing or driving?

A. We always put the point at least four feet below the surface of the water. Sometimes it would reach that depth of its own heft and momentum. If not we always force it down to the required depth.

Q. 189. Was it your usual custom to use no more force than the weight and momentum of the drive point falling into the water-bearing strata?

A. No.

Q. 190. Then it was your usual custom to use more and other force?

841 A. We always used more pipe than simply the drive point, which added its weight to that of the drive point; made more force than simply the drive point.

Q. 191. Did you usually use more force in putting the tubes in position than their weight and momentum?

A. Yes.

Q. 192. Do you now positively remember of a single instance where you constructed one, or assisted in constructing one, where no other force was used than the force of the momentum and weight of *the weight of* the tubes? And, if so, state for whom the well was made, and when and where, and who was present.

A. Such cases did occur, but I do not remember the dates, the places, or the names.

Q. 193. What was there so peculiar about it that causes you to remember that and nothing else?

A. It relieved us of the labor of forcing it into the ground.

Q. 194. In that case did you not have to drive it to knock the clay off the screen?

A. No, sir.

Q. 195. How do you remember that?

A. Had there been clay in the sand it would not have dropped to its position.

Q. 196. Would it have made any difference, if it had have been clay eight or ten feet above the water-bearing stratum, about its falling into position?

A. Not if there had been a hole bored through that clay large enough to admit the tube.

Q. 197. Would it make any difference about its falling into position, whether there was sand or clay above the water-bearing stratum?

A. No.

Q. 198. Then why did you answer a moment ago that you remembered a case where you did not drive, because it fell to its position all right, for the reason that there was no clay?

A. In that case I had reference to clay in the water-bearing strata.

842 Before answer counsel for plaintiff reads to the witness interrogatory 195 and the answer.

Q. 199. Is it not true that when the tube goes down it is very apt to strike against the sides of the hole and the screens very frequently gets filled with clay, and that you are compelled to drive the tube in order to free it from this clay?

A. No.

Q. 200. Why do you drive it in such cases?

A. Because it is an easy way to start the clay off the screen.

Q. 201. When you put down your drive point and attach your sand pump and find the sand to be fine, what do you do?

A. If the sand is too fine to make a well there we generally go down until we find sand coarse enough to make a well, if nothing prevents.

Q. 202. How do you go down?

A. We don't go down, but we force the tube down.

Q. 203. How do you force the tube down?

A. We sometimes take hold of it and by moving it up and down force it down to the required depth; if we cannot do this we drive it down with a sledge.

Q. 204. If you do not, after driving or forcing the tube down 3 or 4 feet further you should find the sand still fine, what do you do?

A. If the man for whom we are putting down the well don't object we put it down until we find coarse sand, if we don't come in contact with anything that prevents us.

Adjourned until 1.30 p. m.

1.30 P. M.

Resumed the taking of testimony.

Q. 205. You say if the owner don't object you go on down; how do you go on down?

A. We drive the pipe on down.

843 Q. 206. How deep do you sometimes go in this way?

A. Ten feet.

Q. 207. In making these walls have you met with much trouble from fine sand or clay after reaching the water-bearing stratum?

A. Not very much in Iowa.

Q. 208. Then you generally reach coarse sand or gravel readily?

A. More cases we do than we don't.

Q. 209. Have there been many instances in Iowa where you have had to go further down on account of the fine sand and clay in the water-bearing stratum?

A. Yes.

Q. 210. Do these answers you have given in relation to the manner of constructing these wells apply as well to the time when you was assisting the defendant as when you was working with other parties in constructing them?

A. Yes.

Q. 211. When you was working with the defendant did you put any drive points into the bottom of open wells or bored wells that had been previously constructed?

A. Yes.

Q. 212. How many and for whom?

A. Don't remember.

Q. 213. State how this was done.

A. We put a drive point on the rod and dropped it into the well.

Q. 214. State whether you drove it into the bottom or not.

A. If there was not sufficient water in the bottom of the well we forced it down until there was a sufficient supply.

Q. 215. About how deep would you generally go?

A. About 5 feet.

Q. 216. Now, state how you would get down this depth, 5 feet.

A. If the sand was loose at the bottom we would shove it down with our hands; if not we would drive it down with a sledge.

844 Q. 217. Did you ever find the sand so loose in the bottom of an open well that you could force a pipe down four or five feet with your hands alone?

A. By taking hold of the pipe and moving it up and down it would readily settle to its place without any other force; not always, but sometimes.

Q. 218. Then it is not necessary to stir up the fine sand with an auger in order to force in your pipe readily with your hands?

A. Not always.

Q. 219. In cases where you forced the pipe down five feet in the bottom of an open well and found the sand too fine or clay mixed with it what would you do?

A. If I thought I could reach a good flow of water below I should force it down further; if not I should take it out.

Q. 220. Were there not cases where you forced the point down ten feet in the bottom of an open well?

A. I do not remember of any.

Q. 221. You say it was generally about five feet?

A. Yes.

Q. 222. After doing this what would you do?

A. Pump out fine sand and prepare it for the screen.

Q. 223. Then would you insert the screen point in this hole?

A. Yes; then put on our pump.

Q. 224. Was this done according to the specifications in the patent issued to Elias S. Hovey?

A. Yes, sir.

Q. 225. In constructing these wells did you in all cases follow the specifications of that patent?

A. Yes, sir.

Q. 226. In putting down these several tubes and withdrawing them would it not happen that considerable dirt or earth would become detached and the dirt fall into the bottom of the hole thus made?

A. Not often.

Q. 227. When you were making a well in a loose formation would this not frequently happen?

845 A. Yes; some dirt would fall in.

Q. 228. Why did you always try to get the upper perforations or openings in the screen pipe below the surface of the earth in the bottom of the bored hole about two and a half feet?

A. Because the upper perforations must be below the surface of the water or you can't pump any water.

Q. 229. Please state why you put it below the surface of the ground in the bottom of the hole?

A. Because the surface of the ground in the bottom of the hole is below the surface of the water, and we put it down two feet below that to insure a good flow of water. If it was near the surface it would have a tendency to lower the water near the pipe until it would take air at the upper perforation, which would render the pump useless.

Q. 230. If a pipe of that size was simply set in a 3-inch hole and without being under the surface of the ground in the bottom of the hole, and there was four feet of water in the hole, the pump would quickly exhaust the water in so small a hole, would it not?

A. I never made any such experiment.

Q. 231. If you bored into clay and sand and gravel for the depth of four or five feet in the water-bearing stratum, and the same should fill for the same depth with water, what would be the object in forcing the pipe so that the upper perforations would be two feet below the surface of the ground in the bottom of such hole?

A. To get a flow of water through the sand, which would protect it from the clay substance.

Q. 232. Is that your only reason?

A. And to secure a stronger flow.

X:

X Q. 1. In your direct examination you state that when the screen is covered with clay by hitting it a few times with a sledge it seems to start the clay; please explain fully what you mean by that statement, and how it is done.

846 A. Sometimes in passing the rod down the hole it comes in contact with the side, which fills the meshes of the screen with clay, which remains there until the rod is shoved down to position and prevents the pump from freely drawing water; by simply tapping upon the top of the pipe it seems to remove the clay substance from the screen, and the water flows through freely.

X Q. 2. In all the wells you made did this occur? If not, state about how often.

A. No; it occurred very seldom.

X Q. 3. In your direct examination you state that in order to bore a hole into a clay and sand formation in a water-bearing stratum and not have it fill up the proportion of clay would have to be each alternate inch. Now, will you state whether you ever came across such a formation?

A. I think I never did.

X Q. 4. Did you ever find a formation in a water-bearing stratum where you could bore a hole that would not fill more or less quickly after you had withdrawn the auger?

A. No.

X Q. 5. What benefit, then, is there from boring into the water-bearing stratum?

A. It loosens the sand and makes it easier to introduce the drive point.

X Q. 6. Is it a fact that after boring down to a certain depth into the water-bearing stratum the drive point goes down to the same depth with much greater ease than if it was not bored?

A. Yes; unless the sand is very loose.

X Q. 7. Did you ever find the sand so loose that boring into it would not make it more so?

A. I think I have.

X Q. 8. In putting down the drive point do you ever put that down without tubing enough attached to reach to the surface of the ground from where you have bored to?

A. No, sir.

X Q. 9. Can you state the weight of the drive point?

847 A. No, sir.

X Q. 10. Do you know the weight of the tubing per foot?

A. No, sir.

X Q. 11. In your direct examination you stated that in the first well you made you bored down a ways, and afterwards stated that you had no auger at that place; please explain how that was.

A. I should have stated that we dug down a ways instead of boring.

X Q. 12. At the time you commenced working for E. A. Hovey did you know anything about Green's patent or any other patent on drive wells?

A. No, sir.

X Q. 13. In your direct examination you frequently spoke of putting the tube down to the required depth; now, state if there is any specified depth required; if so, what is it?

A. We considered it necessary to put the drive point at least five feet into the water-bearing stratum.

X Q. 14. Why was it necessary to do that?

A. To insure a good flow of water and place the screen below the water so as not to take air.

X Q. 15. Does it make any difference about the screen being below the surface of the earth in the bottom of the holes if it is below the surface of the water?

A. No; not if it is sufficiently below the surface of the water to furnish a supply.

X Q. 16. If you should place the screen so that the upper perforations were below the surface of the earth in the bottom of the hole, and at the same time they were above the surface of the water, what effect would it have on your pumping water?

A. It would admit the air and you could not pump any water.

X Q. 17. Would you be able to pump water in case you had placed your screen below the surface of the earth and the water in the bottom of the hole and had then by pumping drawn the water down so that the surface of the water was below the upper perforations in the screen?

848–854 A. No, sir.

X Q. 18. In your direct examination you stated that you followed the specifications in the patent issued to Elias S. Hovey in constructing these wells; now, state what you did—that, is in those specifications?

A. In making a well we bore down to the water-bearing strata; then attach a piece of pipe to the drive point and force it down five or six feet into the water; then we put on our sand pump at the top and pump until we remove a portion of the fine sand from the bottom; then we take off our pump and withdraw the tube; take off the drive point and put on the screen, and put that down to the place prepared by the drive point, and then attach the pump.

X Q. 19. Did you have the patent or a copy of it with you when making wells?

A. No, sir.

X Q. 20. Had you at that time you were making these wells ever seen the patent or read the specifications?

A. Not at first, but I think before we were through.

X Q. 21. After you saw the patent did you change your method of making these wells in any manner?

A. No, sir.

Redirect:

R. D. Q. 1. Have you made any experiments to show whether you could get as good a flow of water if the perforations in the pipe were simply below the surface of the water and not below the surface of the earth in the bottom of the hole below the surface of the water?

A. No, sir.

(Signed) D. W. HOVEY.

(En'd:) Filed Nov. 26, 1880. E. R. Mason, clerk.

855 Wm. Thorman, being first duly sworn and cautioned, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is Wm. Thorman; age, 47 years; residence, Oran township, Fayette Co., Iowa; occupation, a farmer.

Q. 2. State if the firm of Hovey Bros., of Independence, Iowa, ever put down a well for you; and, if so, state about when it was.

A. They did put down a well, about May or June of 1873 or 1874.

Q. 3. State all you know about how they put it down.

A. They dug part—about three or four feet; then they bored quite a ways, and then they drove some part.

Q. 4. Did they bore till they came to water?

A. They didn't bore all the way; they bored a part.

Q. 5. About how far did they drive it?

A. I don't know.

Q. 6. How far did they go down after reaching the water?

A. I don't know, but I believe about a foot.

Q. 7. Do you say that your well is only a foot deep in the water?

A. Yes; that is what I think.

Q. 8. How many feet did they go before they struck water?

A. About twenty-two feet.

Q. 9. Then when you reached the top of the water you was at the bottom of the well?

A. I don't understand the question.

Q. 10. How many feet deep is the water in your well?

A. One foot.

Q. 11. Does it supply plenty of water?

A. Yes; it keeps plenty of water.

856 Q. 12. Is the dirt packed tightly around the pipe that the pump is attached to from the bottom of the dug hole?

A. The dirt is close to the pipe.

Q. 13. Is there a pipe extending from a pump down to the bottom of the well?

A. Of course.

Q. 14. About what is the size of the pipe?

A. I can't tell particularly. I think it is about an inch and a half or two inches.

Q. 15. What kind of an end did this pipe have on where it was put down in the earth? Describe how it was fixed.

A. Well, I can't remember very well.

Q. 16. What did they use to drive this tube?

A. They had a kind of plug put on the pipe and a wooden maul.

Q. 17. Did they drive it with the wooden maul?

A. A little ways.

Q. 18. About how far?

A. I don't know.

Q. 19. When they let the pipe down in the hole that they had bored did they drop it into the hole?

A. I can't remember.

Q. 20. Did they pack the dirt around the pipe after they got it in, so as to make it stand firm?

A. I don't know.

Q. 21. Was the dirt tramped around the pipe after you got the dug hole walled or boarded up?

A. I don't know.

Cross-examination:

X Q. 1. In what year was this pump put in?

A. I told you in 1873 or 1874. I don't know for certain.

X Q. 2. Was it not in 1872?

A. I can't remember.

X Q. 3. Was it not in June of 1871?

A. I can't remember.

X Q. 4. Was it not in May of 1870?

A. No; it was not.

X Q. 5. Do you know George Hovey, the defendant in this case?

857 A. I know Hovey, but I don't know his given name.

X Q. 6. Do you know this George Hovey (pointing to defendant)?

A. I don't believe that is the man that sold me the pump.

X Q. 7. Do you know the given name of the Hovey that sold you the pump?

A. I don't know.

X Q. 8. Did you see the well put down that you have described?

A. Yes; I seen part of it.

X Q. 9. What part of the work did you see done?

A. I seen them driving part; I seen them boring part; I seen them digging part.

X Q. 10. Which part did they do first?

A. They dug.

X Q. 11. How far did they dig?

A. I don't know how far; about five feet, but not all on the start; they dug a part of that on the start.

X Q. 12. How many feet did they bore?

A. I don't know.

X Q. 13. Tell as near as you can.

A. I can't tell anything I don't know.

X Q. 14. Did they bore one foot?

A. I know they bored more than one foot.

X Q. 15. Did they bore two feet?

A. They bored that much, anyhow.

X Q. 16. What kind of soil is it where the well was put down?

A. It is gravel, sandy land.

X Q. 17. Do you know how deep this well is?

A. I don't know.

X Q. 18. Was you there at the well when they stopped boring?

A. I was not.

X Q. 19. Do you know whether they bored to water or not?

A. I don't know.

X Q. 20. When they bored did they take out the earth?

A. I don't know.

858 X Q. 21. Were you at the well at any time while they were boring?

A. I can't remember.

X Q. 22. Were you right at the well at any time while they were digging?

A. I was there at the start.

X Q. 23. Were you at the well when they were driving?

A. Can't remember; I seen them at a distance.

X Q. 24. How far from the well was you when you saw them driving?

A. About seven or eight or nine rods.

X Q. 25. How do you know that they drove one foot?

A. I know it sunk so fast at last, but I don't know how much they drove—that is, they told me it sunk so fast.

X Q. 26. Was there more than one man by the name of Hovey at work on this well when it was put down?

A. No; I think not.

X Q. 27. Do you know that they did not bore until they reached water in this well?

A. I don't know.

(S'g'd) WM. THORMAN.

Subscribed in my presence and sworn to before me by the said Wm. Thorman this 23d day of December, A. D. 1879.

Witness my hand and notarial seal.

[L. S.] (S'g'd) D. W. CLEMENTS,
Notary Public in and for Fayette Co., Iowa.

859 J. H. MILLER, being produced, sworn, and examined, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is J. H. Miller; age, 36 years; residence, Jefferson township, Fayette Co., Iowa; occupation, a farmer.

Q. 2. Have you a well on your premises that was constructed or repaired by Hovey Bros., of Independence?

A. Yes, sir.

Q. 3. When was it repaired?

A. In '70 or '71; I can't tell which.

Q. 4. Was defendant, George Hovey (the gentleman here—points to defendant), one of the parties?

A. I think not. I don't recognize him as the man.

Q. 5. Was this defendant ever at your place on business connected with wells?

A. He was there with a broker of his at the time of settling up for the well, but had nothing to do with the well, I think; I am not positive.

Q. 6. State what Hovey Bros., of Independence, Iowa, done towards repairing this well that you owned?

A. They took it up and repaired it, as I suppose, after their manner of putting in wells. I was not there.

Q. 7. When did you say this was?

A. In '70 or 71; I am not sure.

(S'g'd) J. H. MILLER.

Subscribed in my presence and sworn to before me by the said J. H. Miller this 23d day of December, A. D. 1879.

Witness my hand and notarial seal.

[L. S.] (S'g'd) D. W. CLEMENTS,
Notary Public in and for Fayette County, Iowa.

860 G. W. Brown, being produced, sworn, cautioned, and examined, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is G. W. Brown; age, 61 years; residence, Jefferson township, Fayette county, Iowa; occupation, a farmer.

Q. 2. How many wells have you on your premises in Fayette county that were constructed by the firm of Hovey Bros., of Independence, Iowa, or by George Hovey, of Independence, Iowa, either by himself or in connection with others?

A. I have three wells that were constructed, but I never knew who of the Hoveys were included in the firm. I have a receipt signed Hovey Bros., and that is all the knowledge I have as to who were the firm.

Q. 3. What was the name of the firm that constructed your wells?

A. There is the receipt signed Hovey Bros. is all I know about it.

Q. 4. Have you that receipt in your possession or under your control?

A. I have.

Q. 5. Will you please produce it?

A. Here it is (hands over paper).

Receipt offered in evidence.

Receipt offered and produced by the witness, as above stated, is as follows:

May 3, '73.

Putting down drove well for G. W. Brown, sixteen feet deep	$34 00
Discount	3 40
	$30 60

Received thirty $\frac{60}{100}$ dollars in full.

HOVEY BRO.,
Per SPRUGG.

861 I hereby certify that the above is a correct copy of the receipt produced in court.

Witness my hand and notarial seal.

[SEAL.] D. W. CLEMENTS,
Notary Public in and for Fayette Co., Iowa.

Q. 6. How many men were engaged in putting down the wells?

A. There were two.

Q. 7. Describe the men, as near as you can.

A. The wells were put down at different times; the Hovey that put down the work was a large, bony man; the one that engaged it was a large, fleshy man; they had a hired man helping them; the man who signed the receipt was a rather spare man.

Q. 8. Give the dates of the construction of these wells, as near as you can.

A. I think the first well was put down in '71 or '72 and the other two about '72 or '73.

Q. 9. How does the date of putting down the last well correspond with the date of that receipt?

A. I think the last well was put down at the date of the receipt.

Q. 10. Describe all that you know about the manner of constructing these wells or either of them.

A. There was a hole dug about five feet deep, perhaps three by four feet, and curbed up with a wooden box and an iron pump put in. That is about all I really know, as I wasn't there to see the work done.

Q. 11. State how deep these wells are.

A. I think I paid for eighteen feet for one well. This receipt says for sixteen feet; I can't recollect particularly about the other, but we had to go about sixteen feet along that creek bottom to get water.

Q. 12. Have you ever looked into these holes that were dug and curbed up after the pipe was put in and the pump on ?

862 A. I have.

Q. 13. Did the pipe project into the earth in the bottom of the dug hole ?

A. As I understand the term projection, it didn't.

Q. 14. What do you understand by the term projection ?

A. It is where a thing projects over or outside of.

Q. 15. Was this pipe projected over or outside of the earth in the bottom of the dug hole ?

A. The tube or pipe was above the bottom of the hole, and then the pump box above that.

Q. 16. Was the lower end of the tube projected into the earth in the bottom of the dug hole?

A. I did not see the work done, but concluded it must have been so.

Q. 17. Do you not know that the lower end of the pipe was inserted into the earth when you looked at the bottom of this dug hole?

A. I did not see it inserted in ; I only know what I see.

Q. 18. When you looked in the bottom of the hole did you see that the lower end of the pipe had been inserted into the earth in the bottom of the dug hole ?

A. I think I did ; I couldn't see the lower end of the pipe.

Q. 19. Was the earth against the pipe in the bottom of the dug hole?

A. It was.

Q. 20. Was there any space between the pipe and the earth below the bottom of the dug hole ?

A. I saw no space around the pipe at the bottom of the dug hole.

Q. 21. About how far is it from the surface of the earth to the water in the locality where these wells are constructed ?

A. I think about twelve feet.

Q. 22. Have you repaired these wells since they were constructed ?

A. I have.

Q. 23. State what was done.

863 A. I have packed over the valves, and one of the parts of the pump above ground has been broken, and had to get a new pump for two of them and a new cap for one.

Q. 24. Did you take up the pipes of any of them ?

A. I did of one.

Q. 25. State how you got it out.

A. Put a chain below the pump box and pulled it up with a lever.

Q. 26. Was it necessary to use a lever in order to pull it up?

A. It was.

Q. 27. Did it require considerable of an effort to pull it up?

A. It took two men — lift*ed* — on the lever.

Q. 28. Describe the lower end of the tube that you took out of the ground with a lever.

A. There was a wooden plug in it.

Q. 29. Describe it fully.

A. It was rounded off at the bottom to a point. There was two feet and a half or three feet of it that had holes perforated in the tubing and a wire screen soldered over the holes that were bored in. That length, I think, was screwed onto the pipe above it.

Q. 30. What did you do with this pipe after you took it out?

A. I had a small hole in it soldered and put it back again into the hole.

Q. 31. Did you have to drive or force it back any distance of the way?

A. I think it went back again without any driving, without it may have been a little to have it go the proper depth to make the pump suit the platform again.

Q. 32. You found the pipe then embedded in the earth quite firmly when you undertook to remove it?

A. The pipe had rusted in the ground; it required force to start it.

Q. 33. Which one of the wells did you take up?

A. I think it was the second one constructed.

864 Q. 34. Did these wells when in order furnish plenty of water?

A. They do.

Q. 35. Was you ever able to exhaust them when in order?

A. Never have been.

Q. 36. Did this firm of Hovey Bros. that constructed these wells have any wagons with letters or signs on when they came there with reference to constructing wells?

A. They had a wagon that they carried their pumps and tools in; I don't remember whether it had any lettering on or not.

Q. 37. Did they have any sledge or maul with them?

A. I think they did.

Q. 38. Did you ever talk with the defendant in this case, George Hovey, as to who it was that put down your wells?

A. I don't think I did with reference to my wells particularly.

Q. 39. Whose wells did you talk to him about?

A. No particular individual.

Q. 40. What did he tell you about wells?

A. He told me that a certain party in our neighborhood had made an affidavit that he, George Hovey, had put down a well for him at a certain time; that they had made a mistake; that he never put down any wells in that section; that it was his brother that put them in, and that he operated in another part of the country at that time.

Q. 41. He said, then, that his brothers put down these wells?

A. Yes; he did.

Q. 42. Did he say who was members of the firm of Hovey Bros., of Independence?

A. I don't think he did.

Q. 43. In each of these three wells that you speak of that you have does the tube form the lining of the well pit below the surface of the ground and the bottom of the dug hole?

865 A. They do, so far as I ever discovered.

Q. 44. Are each of these tubes attached to a pump with an air-tight connection?

A. They are not, as I understand, the construction of a pump; where the tube and the pump is connected together it is fastened air-tight.

Q. 45. Is not the tube air-tight from this down to the perforations at the lower end of the pipe?

A. I think it must be.

Cross-examination:

X Q. 1. Did the defendant, George Hovey, ever put in a well for you?

A. He did not.

X Q. 2. Did he ever repair a well for you?

A. He did not.

X Q. 3. Was he ever at your farm?

A. Not to my knowledge.

X Q. 4. Were you present during the putting down of any of the wells you have described?

A. Not during the whole of the process of the work.

X Q. 5. What is the character of the soil where these wells you have described were put down?

A. I think it is a black loam and gravel for about four feet, and then you come into sand; I think the sand continues down to the water.

X Q. 6. Did you ever take up more than one of the well pipes?

A. I did not.

X Q. 7. When you replaced the pump and tube you took up did the tube return to its place without force other than its own weight?

A. Can't say exactly about that; had no difficulty in getting it back.

X Q. 8. Do you remember whether or not you had to use any force in replacing the tube and pump?

A. I do not remember.

X Q. 9. State, as near as you can now remember, the year and month when the first well you have described was constructed.

866–874 A. I think it was in '71 or '72; I think it was in the spring; I should rather think it was in '71.

X Q. 10. Now state, as near as you can remember, the time the second well was constructed.

A. I judge it was within a year after the first one.

(Signed) GEO. W. BROWN.

Subscribed in my presence and sworn to before me by the said G. W. Brown this 23d day of December, A. D. 1879.

Witness my hand and notarial seal.

[L. S.] (Signed) D. W. CLEMENTS,
Notary Public in and for Fayette Co., Iowa.

875 THOMAS DOBSON sworn, who deposes and says, in answer to the following interrogations:

Q. 1. What is your name, age, residence, and occupation?

A. Thos. Dobson; 44; East Waterloo, Black Hawk Co., Iowa; farmer.

Q. 2. Are you the owner of any wells in Black Hawk Co.? And, if so, state what kind of wells and how many and where they are located.

A. I have two (2) iron wells on the W. ½, S. W. ¼, 4, 89, 13.

Q. 3. When and by whom were these wells constructed?

A. I think about nine or ten years ago; I would not be positive; I would not swear to that; by myself and Mr. Green.

Q. 4. Have you anything by which you could state the date when they were put down?

A. I think I can by my deed.

Q. 5. Will you examine your deed or the record and tell us the date, as near as you can?

A. I will.

Q. 6. What time, with reference to the date of your deed of this land on which they are located, were these wells put down?

A. I think my deed was made out in November, and about one year from that time the first well was put down; the second well was put down the next spring; I think about May.

Q. 7. Please describe, as fully as you can, how these wells were constructed.

A. We first dug some six or seven feet; curbed it up; we then bored down until we got so near the water that the sand run in and bothered us; then we attached our pump to our pipe; we then put our pump down into the hole and drove it some five or six feet; we then put down what Mr. Green called his sand pump and pumped out the fine sand; we then drew that pump out and put on another point that we intended to stay there; put the pump back; put on the pump; put on the platform, and called the job done.

876 Q. 8. Was the dirt against the pipe in the bottom of this dug hole?

A. I think not, but at the bottom of the pipe; I think it was, but when the hole was bored it might have touched in some places and in some it might not.

Q. 9. How deep was this well?

A. 25 or 26 feet.

Q. 10. What part of that distance do you say you drove?

A. About six feet.

Q. 11. What did you drive with?

A. Wooden beetle.

Q. 12. How did you attach your pipe to the pump?

A. We screwed the pump on to the pipe.

Q. 13. Was the pipe air-tight from there down to the perforations in the point?

A. It was, except a vent which we gave it.

Q. 14. Was there perforations in the drove point below?

A. Yes.

Q. 15. How long have you used this well for the purpose of getting a supply of water?

A. Ever since I drove it.

Q. 16. Have you ever taken the pipe up since you drove it?

A. I have.

Q. 17. How did you get it up?

A. Pulled it up.

Q. 18. How?

A. With lever and chain.

Q. 19. Was the dirt in contact with the pipe at the bottom of this dug hole when you pulled it up with this lever and chain?

A. It was.

Q. 20. The earth has settled around it, had it, from the time you had constructed it?

A. Yes.

Q. 21. What degree of force did you apply to the lever to raise it?

877 A. I used a lever about 10 feet long—a common rail—with my own weight on the end of it; I don't know but Mr. Green might have helped me.

Q. 22. After you had started it up away you would have to loosen up on it to get a fresh hold. Would the pipe stand there to where you had lifted it and not fall back?

A. When we first started it it would; when we had drawn it some 8 or 10 feet it would fall back; then we took hold of it and lifted it out by hand.

Q. 23. Describe the second well—how it was made.

A. It was made by the same man and myself, almost precisely in the same way as the first.

Q. 24. What difference, if any, was there?

A. We dug a little deeper before we curbed up.

Q. 25. What did you dig and curb for?

A. We dug and curbed so as to have room for our cylinder—to have space to repair the cylinder if it got out of repair.

Q. 26. How deep was this second well?

A. About the same depth of the first.

Q. 27. Did you ever take up this second well?

A. Yes.

Q. 28. How did you take up the second well or tube?

A. In the same manner as we did the first.

Q. 29. How was the dirt, as regards the pipe, in the bottom of the dug hole in the second well?

A. Sand had caved in and filled around the pipe.

Q. 30. How long have you used this second well?

A. Ever since I put it down.

Q. 31. How do you get water out of these wells?
A. Pump it out.
Q. 32. Through these pipes that were driven in the ground?
A. Yes.
Q. 33. Have you ever obtained a license from complainants or any other persons for the use of these wells?
A. Have not.

Plaintiffs rest.

878 Def't cross-examines witness:

X Q. 1. Do you now remember what year you put down the first of these wells?
A. I do not.
X Q. 2. Who furnished the tools and materials for putting them down?
A. Mr. Green furnished the tools; I bought the materials from Mr. Thompson, of Cedar Falls.
X Q. 3. What was the size of the pipe used?
A. I cannot say positively, but I think it was 1¾ inch.
X Q. 4. Does that refer to the exterior diameter of the pipe?
A. Yes.
X Q. 5. What was the size of the auger used in boring?
A. I could not be positive, but I think 2½ inches.
X Q. 6. What was done with the dirt as you bore down?
A. We would bore about a foot, draw the auger out, clean the dirt off, and put it back and bore again.
X Q. 7. State whether or not you took out all the dirt in that manner down as far as you bored.
A. We did.
X Q. 8. Did you bore until the dirt would not stay on the auger to lift it out of the holes?
A. We bored until the sand ran in so that we could make no headway by boring, and we quit boring.
X Q. 9. Was there any water in with this sand when you quit boring?
A. Yes.
X Q. 10. When you put your tube together and inserted it into the hole did it go down as far as you had bored by its own weight?
A. Yes.
X Q. 11. State whether it went any further into this wet sand.
A. I think it did.
879 X Q. 12. About how far?
A. I could not say—a foot or so.
X Q. 13. After you had pumped out the fine sand, withdrawn the pipe and put on the other point and put the tube back, did it then go down as far as you wanted it without driving?
A. No.
X Q. 14. How far did you drive it then?
A. I should think some five or six feet.
X Q. 15. Did you drive this last pipe as far as you had to drive the first one?

A. I think I did; about the same.

X Q. 16. Did this last pipe go into the ground farther than the first one?

A. I think it did; about ten inches.

X Q. 17. When you had inserted this pipe in the hole ready for the pump to be attached did the earth press against it all around at the bottom of the dug hole?

A. It did not.

X Q. 18. About how much space was there around the pipe?

A. I should think from a quarter to a half an inch.

X Q. 19. Was this hole the same size down to the water?

A. Yes.

X Q. 20. Was the pipe the same size down to the water?

A. Yes.

X Q. 21. Could the pipe be as easily moved from one side to the other in this hole?

A. Yes.

X Q. 22. How was the hole and pipe in reference to the size and the space around the same in the second well with reference to what you have testified as to the first one?

A. It is the same sized pipe, hole bored by the same auger, and is almost identically the same in all respects.

880 X Q. 23. Could air pass down beside the pipe in the well to the water as you first made them?

A. Yes; I think it could.

X Q. 24. How much sand did you pump out of each of these wells when making them?

A. I could not say.

X Q. 25. Can you tell us about how much?

A. I don't know; there might have been a pail full or a half bushel—one; there was probably half a bushel; the other not so much.

X Q. 26. How long after you put down the first well before you took the pipe out?

A. I took it out the next spring.

X Q. 27. Between the time you put it down—the time you took it out did you notice any difference in the working of it or in the supply of water you could get from it?

A. Yes.

X Q. 28. State when and what that difference was.

A. When we first put it down the water came freely, the sand worked into the point through the screen, and we could not get water so freely.

X Q. 29. State what kind of a point you had on that tube. Describe it fully.

A. The first point was a perforated point about two feet in length, a thread cut around the point; anda wireabout the size of common broom wire run around the point in the thread and was soldered fast with a cast-iron point in the loose end of the perforated point; when I took it up in the spring I knocked out the cast-iron point and attached another point to the perforated point that was there;

this last was three feet long; it had four rows of perforations and was covered with a wire gauze screen; we put in a wooden plug in the lower end sharpened to a point.

X Q. 30. Did you put all this back into the well?

A. Yes.

881 X Q. 31. When it was put back was there any space between the pipe and the earth surrounding it?

A. Some little.

X Q. 32. Could the pipe be moved easily in the hole?

A. Yes.

X Q. 33. State whether this pump in that condition worked as well as it has at any time since.

A. I think it did.

X Q 34. Have you had it up since then?

A. Once.

X Q. 35. How long after?

A. I had it up in September, 1879.

X Q. 36. Was the earth packed tightly around the pipe at the bottom of the dug hole when you commenced to take it up, in September, 1879?

A. Yes; sand had washed in and filled up the hole.

X Q. 37. Could you see that the pump worked any easier or that the supply of water was any greater when the earth was so packed than when the pipe was loose in the hole?

A. No.

Redirect examination:

R. D. Q. 1. When you took up this pipe the first time you say you added about three feet in length. Now, please state how far you drove the pipe after adding the three feet.

A. We put the pipe back in the hole and it dropped down about two-thirds of its length.

R. D. Q. 2. Then you drove the pipe with the three feet added about eight feet.

A. I should think somewheres about that distance—seven or eight feet.

R. D. Q. 3. Now, will you swear that there was some space around the pipe all the way down to the drive point?

A. No, sir.

R. D. Q. 4. How far was the end of this pipe projected into the water-bearing stratum?

A. It was about six feet at the first time; when we repaired it it was about eight feet.

882 R. D. Q. 5. When you withdrew the pipe to repair it or add the second drive point you say the earth was packed tight around it all the way to the bottom of the dug hole?

A. It was, as far as I could see.

R. D. Q. 6. Do I understand you to state that after you inserted this pipe in the same hole from which you had withdrawn it that it left an opening around the pipe down to the water?

A. Yes; the plug that we put in the point in drawing that out *is* is larger than the pipe is, so that it makes a hole larger than the pipe as it comes out.

R. D. Q. 7. How much larger?

A. About a half inch, I should think.

R. D. Q. 8. You mean a quarter inch on each side of the pipe?

A. Yes.

R. D. Q. 9. Now, will you please tell how you know that this opening of a quarter of an inch on each side of that pipe extended all the way down to the water, and how are you able to state that loose earth or sand would not fall against that pipe for a considerable distance above the water-bearing stratum?

A. What makes me say so we took out the pipe several times whilst repairing it; it would drop back, seeming to be loose down as far as it dropped.

(Witness now states that they took it out some two or three times whilst repairing it once and it would drop back to where they supposed the water to be.)

R. D. Q. 10. How would you get it out at these times?

A. Lift it out by hand.

R. D. Q. 11 You would only put it back as far as it would drop?

A. Once we did and once we drove it.

R. D. Q. 12. At the time you drove it a couple of feet did you pull it out by hand?

A. Yes.

883 R. D. Q. 13. How many assisted in pulling it out at that time?

A. Mr. Green and myself pulled it out.

R. D. Q. 14. Will you swear that in drawing this pipe up and down this hole two or three times with projections to the extent of a quarter of an inch beyond the diameter of the pipe — did not dislodge earth or sand sufficiently to fill this hole for some distance above the level of the water?

A. I cannot swear to it; it might have a little and it might not.

R. D. Q. 15. What was the formation there—loose or solid?

A. It was a kind of mixture of clay and sand; a sticky substance most of the way down.

R. D. Q. 16. About how far down?

A. We bored through that about 9 feet, I think.

R. D. Q. 17. Could you see down this quarter of an inch space between the earth and the pipe to the water, some 16 or 18 feet below?

A. I could not.

R. D. Q. 18. If loose dirt should have fallen in after putting down the pipe for some distance above the water-bearing stratum could you not pull it out very easily with your hands?

A. It would depend how much dirt fell in around it.

R. D. Q. 19. Suppose the loose dirt had fallen in around the pipe to the surface of the earth in the bottom of the dug hole, could you have raised it out by hand?

A. I think not.

R. D. Q. 20. If that be true why did you swear upon your direct examination that you found the dirt packed around the pipe and that you and Mr. Green took a lever and chain, and, after raising the pipe 6 or 8 feet, that you pulled it out with your hands?

A. About 16 feet from the base of the pump there is a knuckle that joins the pipe together; that knuckle loosened the pipe so that we could draw it out after we got the knuckle above the surface.

884 R. D. Q. 21. Wasn't that knuckle there when you put the pipe back when you was experimenting and repairing it?

A. It was.

R. D. Q. 22. Please explain how it is that the knuckle would come out easier with solid earth against the tube above than it would with loose earth?

A. I do not say that it would.

R. D. Q. 23. Then you are mistaken when you said you could pull that pipe out of there with your hands for some 16 feet with solid earth around the pipe above and couldn't pull it out for about the same distance with loose earth in the hole surrounding it?

A. I don't think I made any such statement.

R. D. Q. 24. You say that that knuckle was about 16 feet from the base of the pump, and that by raising it 6 or 8 feet it brought the knuckle out of the ground?

A. Yes.

R. D. Q. 25. How much space was there between the earth and the pipe at the point where this knuckle was?

A. The pipe is secured into the knuckle to join the pipe together, and when we drew it out it made the hole the same size as the knuckle.

R. D. Q. 26. Then the knuckle just fills the hole when you put it back?

A. Yes.

R. D. Q. 27. About how far was this knuckle above the water-bearing stratum?

A. I should think about 3 or 4 feet.

Recross:

Re-X Q. 1. By moving this pipe with the knuckle on up and down in the hole would it not enlarge the hole so that there would be a space around the knuckle between that and the earth?

A. By removing it up and down a number of times it might.

885 Re-redirect:

Re-R. D. Q. 1. That would only apply to the hole above the knuckle?

A. Yes, sir; only as far as the pipe or knuckle is moved.

(Signed) THOMAS DOBSON.

STATE OF IOWA, *Black Hawk Co.:*

I, W. I. Bur, a justice of the peace in and for Waterloo township, Black Hawk Co., Iowa, do hereby certify the above deposition of

Thos. Dobson was sworn to and signed by the said deponent in my presence, before me, and that said deposition was taken by me on the 6th day of January, 1880, between the hours of 8 o'clock a. m. and 11 o'clock p. m., at the place and for the purpose named in the caption hereof.

Witness my hand this 7th day of January, 1880.

(Signed) W. I. BURR,
Justice of the Peace.

886

Mr. Lake.

SIR: My deed is dated November 30, A. D. 1867; filed for record 2d day of Dec., 1867. My first well was put down about one year from that time; the other one the next May.

(S'g'd) THOS. DOBSON.

Postal card. U. S. postage. One cent.

Write the address on this side; the message on the other.

Mr. Lake, Esq.,
Waterloo,
Iowa.

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887 NATE STANTON, being first duly sworn, doth depose & say, in answer to the several interrogatories, as follows:

1st. What is your name, age, residence, and occupation?

Ans. N. Stanton; 35; East Waterloo; conductor on I. C. R. R.

2. Have you one or more wells? If you have, state where they are located.

Ans. I have but one; located in my house, lot 18, block 64, Cooley's addition to the city of Waterloo.

3. When was this well made, and by whom? And state particularly how it was made, if you know.

Ans. It was made in the spring of 1878 by myself. I took an iron rod, run it down in the earth by churning in by hand about 16 feet. I withdrew the rod by hand, inserted the gas pipe,
888 also by churning by hand, but the gas pipe dropped in about 8 or 10 feet, of its own weight, after I withdrew the rod; then I — the gas pipe down about 4 ft. by hand. I laid a stick of cord wood on top of the gas pipe; took an iron maul and drove it down in the ground about 4 feet; then put on a Pitcher pump and went to pumping.

4. How long have you used this well?

Ans. Ever since I put it in.

5. Have you ever obtained a license from the complainants or any person to use this well?

Ans. No.

Complainants rest.

Cross-examination:

1st. Was this gas pipe that you put into the hole open at the lower end?

889 Ans. It had an iron point or plug, whichever you are a mind to term it, on the end.

2. Was that point or plug fastened into the lower end tightly?

Ans. Yes.

3. How did water get into the pipe? Describe fully.

Ans. There was a short piece about 2 feet long that was screwed fast to the pipe that had holes either drilled or slots cut, I do not recollect which, with screens soldered over them, that let the water into the pipe.

4. Why did you have screens over the holes that let the water into the pipe?

Ans. To keep the sand out of them, if there was any down there.

5. Was there any sand in the water-bearing stratum where your pipes stopped?

890 Ans. I should judge there was, for there was a little came up in the pump.

6. Why was it necessary to keep this sand out of the pipe?

Ans. In case there was any there it would fill the pipe, get under the valve, and the pump would not work.

7. In case the pipe had been open at the lower end would sand come in when you pumped?

Ans. Yes.

8. Would a well made with the pipe open at the lower end work in the soil where you made this well?

891 —. No.

9. Have you ever made any other well than this one?

Ans. I have helped make them.

10. How many wells have you helped make?

Ans. I could not tell; quite a good many. I have no record of them.

11. In making those well- did you experiment to see if one could be made with the pipe open at the lower end?

Ans. I have had that iron plug come out at the bottom, and they would fill up so that they would not work—is the only experiment I had ever tried.

892 12. Have you had them fill up by reason of holes through the screen also?

Ans. I have had the screen tear off, and in such cases they would fill up and would not work.

Redirect examination:

1st. Have you ever made or helped to make any wells similar to the one you have described, that you made for yourself in 1878, in Black Hawk Co.?

Ans. I have helped to make them.

2. State how many you have assisted to make, as near as you can.

Ans. I can give no correct answer to that question. I keep no record of them.

30. Have you made as many or helped to make as many as 50?

Ans. I could not say, but I should think not.

893 4. Will you swear positively that you have not helped to make as many as fifty (50)?

Ans. I would not, for I could not say. My answer before was as near as I could give it.

5. Can you state whether or not you have made as many as twenty (20)?

Ans. Yes, sir; I think I have.

6. State for whom you have helped to make any other wells than the one you made for yourself.

Ans. I put in one for Edmund Miller when he was alive; a fellow named Sill, on Elk Run. I could not give the names of 894 others without studying them up.

7. Do you now state that these two are the only names that you can give for whom you helped to put down wells?

Ans. That is all I can recollect positively till I go and see and figure it up; till I go and see.

8. Will you examine, ascertain, and determine for whom you helped to make these wells and when and where, and report to this examiner this afternoon or to-morrow?

Ans. I could not do it this afternoon unless I am compelled to. I don't think I will be able to-morrow.

9. Will you state when you will do so?

Ans. When the law compels me to.

10. Do you refuse to examine and give a list to this examiner as far as you can this afternoon, to-morrow, or at the earliest 895 practicable time without allowing any unnecessary delay?

Ans. I will give him a list of a few names in a day or two.

11. Do you refuse to give as full a list as you can to-day or to-morrow?

Ans. I will not give as full a list as I can. I told him I would give him a part of a list.

12. Have you any books, records, papers, or any other means other than your recollection by which you can determine how many wells you have assisted to make similar to the one you made for yourself heretofore described in Black Hawk county?

Ans. I have no books nor records; only my own recollection, as I was working by the month for other parties.

13. State who you worked for.

Ans. Stanton & Crittenden, hardware dealers, in Waterloo.

896 14. State during what time you worked for this firm while engaged in making these wells.

Ans. I believe it was the years 1867, 1868, and 1869.

15. State the surnames of the members of this firm.

Ans. D. B. Stanton and H. M. Crittenden.

The complainants here rests the examination of the witness until the witness has been compelled to answer the questions he refuses to answer.

Recross-examination:

1. Had you any interest in the profits of the business, or was you simply paid by the month for your work?

Ans. I was hired by the month. I had no interest in the profits.

(S'g'd) NATE STANTON.

State of Iowa, }
Black Hawk Co., } *ss:*

897 I, William I. Burr, a justice of the peace in and for Waterloo township, Black Hawk Co., Iowa, do hereby certify that the foregoing deposition of Nate Stanton was sworn to and signed by the said deponent before me & in my presence, and that the said deposition was taken by me on the 7th day of January, 1880, at the place and for the purpose named in the caption hereof.

Witness my hand this 7th day of January, 1880.

(Signed) WM. I. BURR,
Justice of the Peace.

898 **Frank S. Lauer** sworn, who deposes and says in answer to the several questions:

Q. 1. What is your name, age, residence, and occupation?

A. Frank S. Lauer; 40; East Waterloo, Black Hawk county, Iowa; miller.

Q. 2. Have you any wells in this county; if so, how many and where are they located?

A. I have not. I have got a pump, but it is not working; it is not in.

Q. 3. Since when did you quit working this well?

A. In the spring after I put it down. I put it down two years ago this fall.

Q. 4. How long did you use it?

A. I used it along that winter—long as I could; it was not satisfactory.

Q. 5. Did you obtain your supply of water from it for your house while you were using it?

A. No, sir; I depended very often on my neighbors across the street.

Q. 6. What proportion of this time did you obtain a supply of water from it for your family?

A. I could not depend on it for water; sometimes I could go out there and get a pail full out.

Q. 7. During some of this time did you obtain a supply of water from it?

A. So—not satisfactory; no, sir.

Q. 8. How many days during this time did you get your supply of water from it for your family?

A. When I first got it in; probably five or six days, while it worked, but it was not satisfactory.

Q. 9. Then you swear, do you, that there were only five or six days that you did not go to your neighbors to get your supply of water while you was using this well?

A. No, sir; I do not.

Q. 10. How many days during the time you was using this well did you get your whole supply of water from it that you used?

A. I don't know that there was any days; not any satisfactorily.

899 Q. 11. Where did you get your supply of water?

A. From my neighbors across the street.

Q. 12. Then you swear that every day during the time you used this well you got water that you used from your neighbors across the street?

A. Yes; as near as I can tell truly.

Q. 13. If you got your supply of water that you used every day during the time you had this well from your neighbors across the street why did you answer, a moment ago, that there was five days that you depended upon the pump well?

A. I don't think that I answered that I depended entirely on this well those 5 days.

Q. 14. How was this well constructed?

A. It was driven down.

Q. 15. How deep was it driven?

A. It was about 20 feet.

Q. 16. Describe the pipe, pump, and the point.

A. It was a common iron pump; 2-inch iron pipe. The point, at the end, was screwed onto the screen; the screen was about 2 feet long.

Q. 17. Did you pump water through this pipe and pump after the well was made?

A. Not satisfactory.

Q. 18. Did you pump water through this pipe and pump after the well was made?

A. We tried and tried, thinking it would probably work satisfactorily, but it never did.

Q. 19. Did you pump water out of this pipe and pump after the well was made?

A. It would throw a little at a time; not very much.

900 20. Will you state now whether or not you pumped water out of this well after you had constructed it or after it was constructed?

Ans. Not satisfactory.

21. Do you now refuse to give any other answer to that question than the one you have given?

Ans. I think that was about enough; it wasn't satisfactory.

901 Q. 22. Will you answer the last question I asked you?

A. Yes, sir.

Q. 23. Then please go on and answer it.

A. I object to any more.

Q. 24. Then you refuse to answer any more?

A. Of these questions I have answered.

(Complainants, without waiving their right to further examine this witness, postpone the examination of this witness until the court has passed upon the question of the refusal of this witness to further testify.)

Cross-examination:

X Q. 1. What nationality are you?

A. Pennsylvania.

X Q. 2. What language did you use in your early life?

A. German.

X Q. 3. Do you have any difficulty in understanding and expressing yourself in English?

A. Very often.

X Q. 4. In answering the direct interrogatory 16, which reads, "Did you pump water through this pipe after the well was made," did you state the facts to the examiner as clearly as you could?

A. To the best of my understanding and knowledge.

X Q. 5. In answering the other questions following that one did you also state the facts as clearly as you could?

A. Yes, sir.

X Q. 6. Does your refusal in this matter apply to any other question except the one that had been repeated to you by the counsel four or five times and that you had answered as many times?

A. Yes.

X Q. 7. Do you mean to be understood that you refuse to answer any questions in this case?

A. No, sir; only those that I have answered.

902 X Q. 8. Then did you understand me in question No. 6 that was asked you?

(Counsel asks examiner to read question No. 6 again to the witness.)

A. I refuse only those that I have answered.

(Counsel for defendant now states that it would be better to finish the examination of this witness now, except as to the question that the complainants claim he has refused to answer.)

(Signed) FRANK S. LAUER.

STATE OF IOWA, *Black Hawk Co.:*

I, W. I. Burr, a justice of the peace in and for Waterloo township, Black Hawk Co., do hereby certify that the above deposition of Frank S. Lauer was sworn to and signed by the said deponent before me and in my presence, and that the said deposition was taken by me on the 7th day of January, 1880, between the hours — 8 o'clock a. m. and 11 o'clock p. m., at the place and for the purpose named in the caption hereof.

Witness my hand this 7th day of January, 1880.

(Signed) W. I. BURR,
Justice of the Peace.

903 JOHN DOBSON sworn, who deposes and says in answer to the following interrogatories:

Q. 1. What is your name, age, residence, and occupation?

A. John Dobson; 70; East Waterloo township; farmer.

Q. 2. Have you got any wells? If so, state how many and where located.

A. I have, four in all, two drive wells and two open wells, located on my farm in Black Hawk Co.

Q. 3. Who put down the drive wells?

A. Mr. Hovey put one down; the other I bought at Cedar Falls, at the hardware store, and got a man at Cedar City to put it down for me.

Q. 4. When was this?

A. The well that Mr. Hovey put down, I think, was nine years last May; the other, I think, was put down three years ago last fall.

Q. 5. How was this last well put down? Describe how it was put down.

A. The man that put it down bored a hole with an auger, I think, about nine feet; then he drove it down about six feet; then he pulled it up and he placed in another tube that he had, with a point on it; put a pitcher pump onto that and pumped the water and fine sand all out, as much as he could get; then he pulled that tubing out and put another in that there was a point on. I think that point was two feet long; it was covered with a screen to keep the fine sand from coming into the pipe; then put a plug of wood in the end and filled that up.

Q. 6. How was the other well made?

A. Just similar to the other one.

Q. 7. How far did they drive, did you say?

A. About six feet. I can't tell, however, that Mr. Hovey drove; it may be that he bored entirely down. I don't know. I cannot say for certain.

Q. 8. Did you ever take up these wells since they were put down?

A. Yes; the one Mr. Hovey put down; it got holes in the pipe and the sand come in that; we couldn't get no good of it.

904 Q. 9. How did you get it up?

A. By chain and lever.

Q. 10. Was it pretty solid in the earth?

A. Yes.

Q. 11. Was the dirt packed close around the pipe when you pulled it up?

A. I guess it was.

Q. 12. How long have you used these wells?

A. The one Mr. Hovey put down, 9 years last May, ever since it was put down; the other 3 years last fall, ever since it was put down, constant.

Q. 13. How did you get the water out of these wells during the time you have used them?

A. By pumping it out. Put the pump on top of the pipe and pumped it out, of course.

Q. 14. Did you ever have a license from the complainants or any other person for the use of these wells?

A. No, sir.

Q. 15. How long was the Hovey well down before you pulled it up?

A. I think about 4 years.

Complainants rest.

Cross-examination:

X Q. 1. How long have you lived on this place where these wells are?

A. Twenty-five years last July.

X Q. 2. What year was it that Hovey put in the well that he made for you?

A. I cannot give the year.

X Q. 3. How do you know that it was 9 years ago last May?

A. By the age of our youngest child.

X Q. 4. What Hovey was it that put in this well?

A. I cannot give his name. He was from Independence. There were 3 or 4 brothers. I cannot tell his name.

905 X Q. 5. Look at George Hovey, here present, and state whether he is the man.

A. I cannot state, for I cannot tell from 9 years ago; I had no acquaintance with him, and I could not do it.

X Q. 6. Did Hovey bore down with an auger when he put in the well?

A. Yes.

X Q. 7. How large was the auger?

A. Something about 2 inches, I think; I should judge it to be so.

X Q. 8. Was not the auger 3 inches in diameter?

A. No; I think not.

X Q. 9. How large is the pipe that he put in the hole?

A. I cannot tell how large; I never measured it.

X Q. 10. Did you see Hovey drive any on this pipe?

A. No; I did not; was not there all the time.

X Q. 11. Who made the other well?

A. Mr. Green.

X Q. 12. Did he bore down to water before he put in the pipe?

A. Yes.

X Q. 13. Was all the driving that Mr. Green did done after the pipe had reached the water?

A. He did not drive any.

Redirect:

R. D. Q. 1. If Mr. Green did not drive any what did you mean by saying awhile ago that Mr. Green bored down about 10 feet and and then drove?

A. He poured water in the whole and churned it up and down.

R. D. Q. 2. Then he churned it up and down before he got to the water?

A. Yes; before he got to the water.

R. D. Q. 3. About how far did he force it down by churning after he got through boring?

A. Between 5 and 6 feet—maybe 6 feet, maybe not so much.

906 R. D. Q. 4. Did Mr. Hovey churn it up and down, too, instead of driving it?

A. I don't know; I wasn't there all the time and I cannot tell.

his
(Signed) JOHN x DOBSON.
mark.

STATE OF IOWA, *Black Hawk Co.:*

I, Wm. I. Burr, a justice of the peace in and for Waterloo t'w'p, Black Hawk Co., Iowa, do hereby certify that the above deposition of John Dobson was sworn to and signed by the said deponent before me and in my presence, and that the said deposition was taken by me on the sixth day of January, 1880, between the hours of 8 o'clock a. m. and 11 o'clock p. m., at this place, and for the purpose named in the caption hereof.

Witness my hand this 7th day of January, 1880.

(Signed) W. I. BURR,
Justice of the Peace.

907 GEORGE LELAND sworn, who deposes and says in answer to the following interrogatories:

Q. 1. What is you name, age, residence, and occupation?

A. George Leland; 43; East Waterloo, Black Hawk Co., Iowa; farmer.

Q. 2. State how many wells you have, and where they are located?

A. I have (3) three, on the N. W. ¼, 10, 89, 13, in Black Hawk Co., Iowa.

Q. 3. When were they constructed, and by whom?

A. As near as I can recollect, the first one was six years ago, the second was five years ago this last fall; the other I purchased the land with the well on it; the first was driven by myself and Chas. Balcomb, the second was driven by Warren Pierce, of Cedar Falls, and myself.

Q. 4. Now, go on and state fully how the first one was constructed; state fully he whole process?

A. We dug down about four or five feet and curbed it up; then we took the point and drove it down to the water; it is driven about 18 feet from the bottom of the curbed hole.

Q. 5. What did you drive it with?

A. A wooden beetle.

Q. 6. Describe the point and pipe.

A. It is all made of what they call gas pipe, about 1¾ inch, I think, on the outside; about 2 feet of what we call the reservoir is perforated about half way through, ¾ inch in diameter, and the balance of the way through the pipe the hole is ½ inch in diameter, and a screen set in the hole down to the shoulder, then a ring set on top of the screen over the shoulder and soldered in, and a cast-iron plug in the bottom—sharp plug.

Q. 7. After driving it in this way did you attach a pump to it by an air-tight connection?

A. Yes, sir.

Q. 8. Did you obtain water from the well directly after placing the pump on the pipe?

A. After priming it I think we did.

Q. 9. How long have you used the well?

908 A. From the time of putting it down to the present.

Q. 10. How have you obtained a supply of water from the well?

A. By the operation of the pump attached.

Q. 11. What difference, if any, was there in the construction of the second well from the first?

A. I think there was no material difference.

Q. 12. Have you used it in the same way since it was constructed?

A. Yes, sir.

Q. 13. How far up these pipes do the perforations extend?

A. Two feet, I think.

Q. 14. What kind of a well was this third well that you speak about?

A. It was made of the same material and was made the same as far as I know. I was not present when it was made. I do not know whether it was bored down or drove down.

Q. 15. How long have you used that well?

A. It has been in my possession about 14 or 15 months—it is on a place I have rented, and my tenants use it.

Q. 16. Have you ever obtained a license from the complainants or any other person for constructing or using these wells?

A. No.

Q. 17. You say you have taken up this well that is being used by your tenants. State how you took it up.

A. I have not had it up since I owned it. I helped the man who owned it. We took it up because it was out of order; we found a sand hole or an air hole in it.

Q. 18. How long ago was this that you took it up?

A. About 2 years ago.

Q. 19. How did you take it up?

A. Lever and chain.

Q. 20. Did it seem to be pretty solid in the earth?

909 A. Quite solid—that is, the sand was tight around it.

Q. 21. For how far up the pipe?

A. All the way, I expect, from the point up to the bottom of the curbed hole.

Q. 22. After you had repaired it did you have to drive it any to get it to its place again?

A. Yes.

Q. 23. About how far?

A. I couldn't say how far that was; it didn't drive very far or great ways.

Q. 24. Couldn't you state about how far?

A. No, sir; I cannot.

Complainants rest.

Cross-examination of witness:

X Q. 1. How long was the point you used in making your first well?

A. About two feet; the perforated point was about two feet.

X Q. 2. About how many holes were made in this point?

A. Well, I should think there were 48 or 50.

X Q. 3. Did each of these have a screen over it?

A. Yes.

X Q. 4. About how fine was the screen?

A. It would let through sand about half the size of a pin head.

X Q. 5. Did any sand come through these screens while you used the well?

A. Probably half a bushel or more at the first pumping before the water got clear.

X Q. 6. State whether you pumped out any sand with another point before you put on the one you have described?

A. No.

X Q. 7. Did you use only this point in making your well?

A. That is all the point.

910 X Q. 8. What would have been the result in case there had been no screens over the holes in the perforated pipe?

A. That would depend on where the point stopped, whether it was in coarse gravel or fine sand.

X Q. 9. Supposing it had stopped in fine sand, what would have been the result?

A. It would probably pump more sand than water; it would have made a sink hole.

X Q. 10. What was the formation when you made your well—coarse gravel or fine sand?

A. I had an open well within four feet that I dug, myself and found no place where the pipe would work without the screen, all being fine sand.

X Q. 11. Why would not the pipe work without the screen?

A. Because they would fill up with sand and the pump could not draw the amount of sand that would rush into the tube.

X Q. 12. State what was the formation where your other drive well was made.

A. We drove it and it was apparently the same; it was 6 or 8 rods from the first one, on the same lay of land.

X Q. 13. What would have been the result if you had put down that point without any screens over the holes?

A. The same as the other—an abundance of sand and not much water.

X Q. 14. Did you ever make any other driven wells than these two mentioned by you?

A. No.

X Q. 15. Did you ever assist in making any others except those two?

A. No, sir.

Defendant rests.

911 Redirect:

R. D. Q. 1. Why did you put down this drive well within four feet of your open well?

A. I got up one morning and there was a rat hole got in and let the surface water in alongside the curbing and washed the sand and filled the well above the water.

Rests.

(Signed) GEO. LELAND.

STATE OF IOWA, *Black Hawk Co.:*

I, Wm. I. Burr, a justice of the peace in and for Waterloo township, Black Hawk Co., Iowa, do hereby certify that the above deposition of George Leland was sworn to and signed by the said deponent before me and in my presence, and that the said deposition was taken by me on the 7th day of January, 1880, between the hours of 8 o'clock a. m. and 11 o'clock p. m., at the place for the purpose named in the caption hereof.

Witness my hand this 7 day of January, 1880.

(Signed) W. I. BURR,
Justice of the Peace.

912 The complainants here offer certified copy of reissued letters patent No. 4372, granted to Nelson W. Green May 9th, 1871, with certificate attached, marked "Exhibit A."

The complainants offer certificate copy, with certificate attached, of power of attorney from Nelson W. Green to Wm. D. Andrews & Brother, dated July 3d, 1871, and also assignment from George H. Andrews, dated July 3d, 1871, and marked "Exhibit B."

913 Complainants also offer certified copy of assignment from Nelson W. Green and Wm. D. Andrews & Brother to Noah J. Parsons, dated October 15, 1878, marked "Exhibit C."

914 DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office of the reissue letters patent granted Nelson W. Green May 9th, 1871, No. 4372, for improvement in the methods of constructing artesian wells.

In testimony whereof I, H. E. Paine, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this fifteenth day of December, in the year of our Lord one thousand eight hundred and seventy-nine, and of the Independence of the United States the one hundred and fourth.

[SEAL.] (S'g'd) H. E. PAINE,
Commissioner.

915 Reissue No. 4374.

The United States of America, to all whom these letters patent shall come:

Whereas Nelson W. Green, of Amherst, Massachusetts, has alleged that he has invented a new and useful improvement in the methods of constructing artesian wells (for which letters patent were issued to him dated January 14th, 1868, which letters having been surrendered the same have been canceled and new letters ordered to issue to him on an amended specification), and has made oath that he is a citizen of the United States, believes he is the original and first inventor or discoverer of the said improvement, and that the same hath not, to his knowledge and belief, been previously known
916 or used; has paid into the Treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patents praying that a patent may be issued therefor:

These are, therefore, to grant to the said Nelson W. Green, his executors, administrators, or assigns, for the term of seventeen years from the fourteenth day of January, one thousand eight hundred and sixty-eight, the full and exclusive right and liberty of making, using, and vending to others to be used, the said improvement, a description whereof is given in the annexed schedule and made a part of these presents.

In testimony whereof I have caused these letters to be made patent and the seal of the Patent Office to be hereunto affixed.

Given under my hand, at the city of Washington, this ninth
917 day of May, in the year of our Lord one thousand eight hundred and seventy-one, and of the Independence of the United States of America the ninety-fifth.

[SEAL.] C. DELANO,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.
M. D. LEGGETT,
Commissioner of Patents.

918 DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.

To all persons to whom the- presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office.

In testimony whereof I, Ellis Spear, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this eighteenth day of July, in the year of our Lord one thousand eight hundred and seventy-seven, and of the Independence of the United States the one hundred and second.

[SEAL.] (Signed) ELLIS SPEAR,
Commissioner.

919 DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office of an assignment from Nelson W. Green, Wm. D. Andrews and Bro. to Noah I. Parsons, recorded in Liber J. 23, p. 473, and that said annexed copy has been compared by me with the original, and that it is a correct transcript therefrom and of the whole of the original.

In testimony whereof I, W. H. Doolittle, acting Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this thirteenth day of December, in the year of our Lord one thousand eight hundred and seventy-nine, and of the Independence of the United States the one hundred and fourth.

[SEAL.] (S'g'd) W. H. DOOLITTLE.
Acting Commissioner.

920 *Assignment of Patent.*

Liber J. 23, p. 473.

Whereas Nelson W. Green, then of the town of Cortland, county of Cortland, and State of New York, did obtain letters patent of the United States of America for certain improvements in constructing wells, which letters patent bear date the fourteenth day of January, eighteen hundred and sixty-eight and numbered 73425; and whereas the said letters patent were reissued, bearing da*y* May 9th, 1871, and numbered 4372; and whereas the said Nelson W. Green did, by deed of assignment, dated July 3rd, 1871, convey to William D. Andrews & Brother, doing business in the city of New York, the undivided one-half of all his right, title, and interest 921 — and to said invention and letters patent; and whereas Noah I. Parsons, of Cedar Rapids, Linn county, Iowa, is desirous of acquiring an interest therein, now, this indenture witnesseth:

That for an in consideration of the sum of five dollars to us, the said Wm. D. Andrews & Bro. & N. W. Green, in hand paid, the receipt of which is hereby acknowledged, we have assigned, sold, and set over, and do hereby assign, sell, and set over, unto the said Noah I. Parsons the undivided one-twentieth part of all the right, title, and interest which we have in the said invention, as secured by us under and by said letters patent and deed of assignment, in the State of Iowa, excepting in the counties of Polk, Dallas, Iowa, Tama, Woodbury, Menona, Des Moines, and Cedar, and reserving to ourselves 922 the exclusive right to dispose of the said invention and patent unto the United States for military, naval, and cemetery purposes, the same to be held and enjoyed by the said Noah I. Parsons, together with the undivided one-twentieth part of all royalties and damages which have previously accrued in said territory and remains unpaid, for his own use and behoof and for the use and behoof of his legal representatives, to the full end of the term for which said letters patent are granted, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

923 In testimony whereof we hereunto set our hands and affix our seals this fifteenth day of October, eighteen hundred and seventy-eight.

For themselves and attorneys-in-fact for—

[American Driven Wells. W. D. A. & Bro.]

NELSON GREEN. [SEAL.]
WM. ANDREWS & BRO.

Sealed and delivered in the presence of—
M. A. ANDREWS,
HENRY F. CHAPMAN, JR.

924 STATE OF NEW YORK,
City of New York, County of New York:

On the 18th day of October, in the year one thousand eight hundred and seventy-eight, before me personally came William D. Andrews, of the firm of William D. Andrews & Bro., known to me to be the individual described in and — executed the foregoing instrument, and acknowledged that he executed the same for the firm of Wm. D. Andrews & Bro., for themselves and as attorneys for Nelson W. Green.

[Seal Samuel Kilpatrick Cuonty of New York..]

SAMUEL KILPATRICK,
Notary Public (86), *County of New York.*

Recorded Oct. 21st, 1878.
Ex.: J. A. W., M. McK.

925 JOHN THEE sworn, who deposes and says, in answer to the following interrogatories:

Q. 1. What is your name, age, residence, and occupation?
A. John Thee; 34; Waterloo; grocer.
Q. 2. Do you have or use a drive well?
A. Yes, sir.
Q. 3. Go on and state how many wells you have, how they are constructed, and when they were put down, and by —.
A. I have but one well— was driven down about 7 or 8 years ago.
Q. 4. By whom?
A. By George Kearney, John Frund, and myself.
Q. 5. What is the size of the pipe that you drove in the ground?
A. I do not know; I never measured it.
Q. 6. Is it more than two inches in diameter?
A. I do not know.
Q. 7. Is it more than three inches in diameter?
A. I do not think it is.
Q. 8. State, as near as you can, about how large it is.
A. I think it is in the neighborhood of two inches.
Q. 9. What is the pipe made of?

A. I suppose of iron.

Q. 10. How far did you drive this iron pipe in the ground?

A. I do not know; about sixteen feet, I think.

Q. 11. To what is the top of the pipe attached and how?

A. It is screwed on to an iron pump.

Q. 12. Have you used this well for pumping water ever since?

A. Yes.

Q. 13. Has it furnished an abundant supply of water ever since?

A. It has some.

Q. 14. Has that been the only well that you have obtained water from since it was put down?

A. Yes.

926 Q. 15. Is the dirt packed tight around the pipe that is in the ground?

A. Yes.

Q. 16. Describe what kind of a point was on the pipe when you drove it in the ground.

A. It was a point with wire tied around it.

Q. 17. Were these holes in this iron pipe under the wire?

A. I don't know.

Q. 18. Did the point fill up the end of the pipe?

A. Yes.

Q. 19. Were there any holes in the end of this point to let the water in?

A. I have not seen any.

Q. 20. How did the water get in the pipe?

A. I suppose it got through the wire that was wound around it.

Q. 21. Could the water get in the pipe by going through the wire that was wound around it without there being holes in the pipe?

A. I suppose not, but do not recollect seeing the holes.

Q. 22. Don't you know that the water could not get in the pipe without there being holes in it?

A. I suppose not.

Q. 23. Then there was a point which fitted in the end of this pipe which closed up the opening in the lower end of the pipe, and there was a wire screen above the point around the pipe?

A. Yes.

Q. 24. What did you drive the well with?

A. A sledge.

Q. 25. After you had attached your pump, could you pump water readily?

A. By priming it I could.

Q. 26. Have you ever had a license from complainants for putting down that well or from any one?

A. No.

Q. 27. Are you still using it?

A. Yes.

28. Is it in good working order at the present time? (Withdrawn.)

927 Q. 28½. State where that well is located, what county, town, lot, block, and State.

A. Black Hawk Co., Iowa, Waterloo, lot 5, block 21, on the east side of the Cedar river.

Complainants rest.

Defendant cross-examines witness:

X Q. 1. How long have you resided in Waterloo, Iowa?
A. I think it is going on 11 years.
X Q. 2. Have you resided all the time on lot 5, block 21, on the east side of the river?
A. I have not on the same lot and block.
X Q. 3. How long have you resided on that lot and block?
A. I think about 7 or 8 years.
X Q. 4. Can you give the year that you put down this well you have testified about?
A. I cannot, except I look it up; about 7 or 8 years.
X Q. 5. Will you look it up and give the commissioner the exact year?
A. Yes.
X Q. 6. When you put down this well who furnished the pipe and tools to put it down?
A. Voorhees & Bunnell.
X Q. 7. Did you get the point of them?
A. Yes.
X Q. 8. Will you now describe that point? Give its length and general construction as near as you can.
A. I think it is about three feet long and has wire tied around it attached to the pipe closed up on the end.
X Q. 9. State with what it was closed up on the end.
A. I don't know if it was iron or lead; I could not tell.
X Q. 10. Was the metal that closed the end sharpened?
A. It came to a point.
928 X Q. 11. Was it fastened into the pipe?
A. It was fastened to the end, but I don't know in what way.
X Q. 12. You state in your direct examination that you could not see any holes in this point; did any one tell you how it was as to having holes in it?
A. No, sir.
X Q. 13. Did you drive this pipe into the ground?
A. Yes.
X Q. 14. Did you draw it out again?
A. I have since.
X Q. 15. After you had driven it into the ground did you draw it out before you put on the pump?
A. No.
X Q. 16. How long did it stay there before you drew it out?
A. About four years.
X Q. 17. State how it was about coming out, whether it stuck in the hole or came out easily.
A. Stuck pretty tight.

X Q. 18. How much force did it require to remove it?

A. About three men.

X Q. 19. Did three men lift it out with their hands?

A. No.

X Q. 20. How did they get it out?

A. With a chain and pole.

X Q. 21. Did they lift it up in that way or did they use a lever and pry it up?

A. Used it both ways.

X Q. 22. Did you put the same pipe back again?

A. Yes.

X Q. 23. How was it about going back, did it go easily or did it require much force?

A. Went back easily.

X Q. 24. Did it require any driving to get it back?

A. Yes; a little.

X Q. 25. How far did you have to drive it?

A. I cannot tell.

X Q. 26. Was you present when it was put back?

929 A. Yes.

X Q. 27. State about how far it was driven.

A. About six feet, I guess.

X Q. 28. After you had taken this pipe out did the hole fill in with dirt as far as you could see?

A. It did not.

X Q. 29. Did you put into the pipe any new piece before you put it back?

A. No; I did not.

X Q. 30. Is this the only well you ever helped to make?

A. It is in this country.

X Q. 31. Had you ever made a well like this before?

A. No.

X Q. 32. Have you had this pipe out more than once since you first put it in?

A. Yes; I had it out twice.

X Q. 33. When was the second time you had it out?

A. I think about a year and a half ago.

X Q. 34. How did it come out then, easily or otherwise?

A. It did not come out very easy.

X Q. 35. State how much force it took to bring it out then.

A. About two men.

X Q. 36. Did you put the same pipe back again?

A. Yes.

X Q. 37. How was it about going back?

A. I was not present then when they put it back.

X Q. 38. You stated in your direct examination that your well had not always furnished water. Will you now state how many times it has failed since you first put it in?

A. It has failed a couple of times.

X Q. 39. Were those the times when you took out the pipe?

A. Yes.

X Q. 40. Did you find out what was the difficulty? If so, state what it was.

930 A. There was a hole in the pipe and the plunger was out of fix.

X Q. 41. Was that the case both times?

A. It was the first, I don't know exactly the second time; I was not present all the time.

X Q. 42. Where in the pipe was this hole that you speak of?

A. It was between the point and the pump.

X Q. 43. How far above the point was it?

A. I don't know; probably about eight feet.

X Q. 44. Then it did not fail because there was no water in the earth, did it?

A. No.

X Q. 45. The 14th direct interrogatory reads, "Has it ever failed?" Your answer to that is "Yes, sir." Now, is that the answer you intended to give?

A. Yes, sir; that is the right idea.

Cross-examination rests.

Redirect:

R. D. Q. 1. With the exceptions of the two times when you repaired it, did it always work well?

A. Yes, sir; it furnished water.

R. D. Q. 2. With what did the two men pull it up the second time it was taken up?

A. With a chain and pole.

R. D. Q. 3. Did they use the pole for a lever?

A. Yes.

R. D. Q 4. Did it take the two men to lift it out with the lever?

A. Yes.

R. D. Q. 5. This pipe that was attached to the pump was screwed together tight until you got down to the point, and there were no openings in it, were there?

A. No.

(Signed) JOHN THEE.

931 STATE OF IOWA, *Black Hawk Co.:*

I, Wm. I. Burr, justice of the peace in and for Waterloo township, Black Hawk Co., Iowa, do hereby certify that the foregoing deposition of John Thee was sworn to and signed by the said deponent before me and in my presence, and that the said deposition was taken by me on the sixth day of January, 1880, between the hours of 8 o'clock a. m. and 11 o'clock p. m., at the place and for the purpose mentioned in the caption hereof.

Witness my hand this 7th day of January, 1880.

(Signed) W. O. BURR,
Justice of the Peace.

932 **W. C. Mervine** sworn, who deposes and says, in answer to the following interrogatories:

Q. 1. What is your name, age, residence, and occupation?

A. Wm. C. Mervine; 63; East Waterloo township; farmer.

Q. 2. Have you any wells where you live?

A. There is a well on the place where I live.

Q. 3. Give the location of the land on which you live, and state where the well is located on the said land as near as you can.

A. I think it's in section 15, township 89—13, in the basement story of the barn.

Q. 4. When was this well constructed—tell as near as you can—and by whom?

A. In 1875, by Chas. Balcomb.

Q. 5. Did you own this land at the time this well was put down, or at any subsequent time up to the present time?

A. I did not.

Q. 6. Have you ever had any interest in this land? State what interest you have or have had.

A. I had a living; I don't know that I can claim any more than a living; my wife owns the property and she owns the land.

Q. 7. How many acres are there in this farm, and who farms the land?

A. 94 acres is what the deed calls for, and Mr. Crittenden farmed the land last year; I attended the garden myself.

Q. 8. Did you assist in putting down this well or was you present at any of the time it was being put down?

A. I did not assist, but I was present at the time.

Q. 9. State particularly how the well was made, as near as you can.

A. The tubing was driven down in the ground 14 or 14½ feet. I cannot tell what it was driven with.

Q. 10. What was put on the top of this pipe?

A. A small pitcher pump.

933 Q. 11. Was water pumped out of this pipe, and have you used it between now and the time it was put in?

A. Yes.

Q. 12. What is your wife's full name?

A. Ruhama Mervine.

Complainants rest.

Defendant's cross-examination:

X Q. 1. Is this the only well on the place?

A. No, sir.

X Q. 2. How old is your wife?

A. About 53 years old.

X Q. 3. Have you any children?

A. I have one by my first wife.

X Q. 4. Has your present wife any children?

A. No.

X Q. 5. Does she use this well in the barn?

A. I don't know that I could answer that question; I don't recollect ever seeing her draw any water there?

X Q. 6. Is she healthy?

A. She is not in good health.

Redirect examination:

R. D. Q. 1. Who employed Balcomb to put down this well?

A. He spoke to me about it, and I presume he spoke to her about it; I told him to put it down, I think; he said he would not charge me anything for the well if he did not get water.

R. D. Q. 2. Who paid Balcomb for putting down this well; who paid him the money?

A. I don't know as I could answer that question; I don't recollect who paid it; there was $10 paid him and a turn made of $4 that he was owing me; it was my wife's money that was paid to him.

(Signed) WM. C. MERVINE.

STATE OF IOWA, *Black Hawk Co.:*

I, W. I. Burr, a justice of the peace in and for Waterloo t'w'p, Black Hawk Co., Iowa, do hereby certify that the foregoing deposition of W. C. Mervine was sworn to and signed by the said deponent before me and in my presence, and that the said deposition was taken by me on the 6th day of January, 1880, between the hours of 8 o'clock a. m. and 11 o'clock p. m., at the place and for the purpose mentioned in the caption hereof.

Witness my hand this 7th day of January, 1880.

(Signed) W. I. BURR,
Justice of the Peace.

934 ANDREW THOMPSON sworn, who deposes & says in answer to the following interrogatories:

1st. What is your name, age, residence, and occupation?

Ans. Andrew Thompson; 49; Waterloo; merchant.

2nd. Have you got or have you had any iron well or wells which you own or have an interest in in Black Hawk county, Iowa; and, if so, how many—how many iron tube or drive well or wells?

Ans. The company of Thompson & Bro. (individually, I have none) has 3 iron tubing wells that I know of.

3rd. Who composes the company of Thompson & Bro.?

Ans. Andrew and Allen Thompson.

4. Are you a member of the firm known as Andrew Thompson?

Ans. There is no such firm as Andrew Thompson.

935 5. Are you the Andrew Thompson who is a member of the firm of Thompson Bros. who own the iron tubing wells referred to?

Ans. I am Andrew Thompson of the firm of Thompson Bros. who own those well- referred to.

6th. When were those wells constructed?

Ans. One of them 8 or 9 years ago. I don't know when the other two were put down.

7th. How long has your firm used them?

Ans. One about 3 years, another about 2 years, and one about 8 or 9 years.

8. Describe all you know about the construction of these wells.

Ans. I would say one of those I know nothing about; one the firm put down 8 or 9 years ago. We hired a man to put it down and paid him when the work was done.

9. What kind of a well did you hire him to put down?

Ans. It was to be a tube well—an iron tube well.

936 10. State all that you see done in connection with the construction of this well and all you done.

Ans. I saw nothing, and my part of the doing was to pay for——

11. Was the tube of this well inserted in the ground with the earth close around it?

Ans. I could not say. I was not present when it was put down.

12. Who engaged these wells to be put in that you have testified about?

Ans. I could not say which of us engaged them.

13. Who put these wells down?

Ans. Amos Highsmith put ours down. The others were bought with the places when we bought them.

14. Where is the well located that Highsmith put down?

Ans. In lots 1 and 4, block 44, in the old plat of the city, on the east side of the Cedar river.

15. What business is the firm of Thompson & Bro. engaged in?

Ans. Merchants.

16. Have you other business than mercantile?

937 Ans. No, sir.

17. Is the well you have just located situated upon the premises where the firm is now transacting mercantile business?

Ans. No, sir.

18. What is the well used for—private use or for the use of the firm?

Ans. One of our renters uses it.

19. Do you know how this well was constructed?

Ans. No, sir; I never saw any but part of it; just the top.

20. Do you know of what kind of material it is constructed?

Ans. Well, on the top it looked like a piece of gas pipe.

21. Was this well driven?

Ans. I cannot say. I was not there.

22. Is this pipe which you refer to in close proximity to the earth where you saw it? State carefully.

938 Ans. I cannot state when I saw it. There was a platform over it the first time I saw it.

23. What do you know of the materials of which the other two wells are constructed, if anything?

Ans. One of them, as far as I could see, was a gas pipe in the ground at the time we bought the place. The other is a tube put down into the ground, about 6 inches in diameter, of galvanized iron, down to the rock, then bored or drilled about 9 feet. It has an iron pipe down into the water with a pump on top. It is just a pipe put down into the water.

24. Was you present at the construction of the other well you spoke of?

Ans. No, sir.

25. State who was present, if you know, at the time Highsmith put the well down for Thompson & Bro.

Ans. I do not know.

939 26. Can you swear positively that this well was not driven?

Ans. I cannot.

27. Will you swear positively that the other 2 tubes or iron wells that you have described are not driven?

Ans. No, sir; I cannot.

28. Will you swear positively that the pipe which you have described as inserted in the well, with a zinc tubing where the rock was drilled into or through, did not have a perforated point upon the same and driven into the earth at the bottom of said well?

940 Ans. No, sir; it was not driven and had no point, as far as I know; it was not driven, but would drop right in.

29. Were you present at the making of this well?

Ans. No, sir.

30. How do you know, then, that the pipe was not driven?

Ans. The man that put it in told me so.

31. Who put this well in?

Ans. A man by the name of Smith.

Complainants rest.

Cross-examination:

1st. Which one of these wells is at the place where you live?

Ans. None of them.

2. Which one is at the place where you and your brother do business?

Ans. None of them.

3. Do you use either of them yourself?

Ans. No, sir.

4. Have you at any time used either of them for general use?

941 Ans. No, sir.

(Signed) ANDREW THOMPSON.

STATE OF IOWA, *Black Hawk Co.:*

I, Wm. I. Burr, a justice of the peace in and for Waterloo township, Black Hawk Co., Iowa, do hereby certify that the foregoing deposition of Andrew Thompson was sworn to — and in my presence, and that the said deposition was taken before me on the 6th day of January, 1880, between the hours of 8 o'clock a. m. —, for the purpose named in the caption hereof.

Witness my hand this 7th day January, 1880.

W. I. BURR,
Justice of the Peace.

942 **Ambrose Leland** sworn, who deposes and says in answer to the following questions:

Q. 1. What is your name, age, residence, and occupation?

A. Ambrose Leland; 37; East Waterloo township, Black Hawk Co., Iowa; farmer.

Q. 2. Have you any wells on your premises? And, if so, state what kinds.

A. I have 2 iron wells.

Q. 3. State when they were put down and state fully the manner of their construction.

A. The first one was put down the first week in June of 1872; the second was put down between the 25th and 30th of June of the same year; the pipe is galvanized pipe, 1½ inch, and the point is Hovey's patent, with a wooden plug put into the bottom of the screen point to exclude sand. As to making the hole, I cannot swear positive, as I was in the field when they made the hole to put the pipe in. Mr. Hovey came the day before and took the contract for putting down the first well; I showed him then where I wanted the well put. That evening I got the lumber and nails to make the curbing to put in the pit; the next day they came and dug the hole and got ready while I was in the field plowing corn; when I came up, at 11½ o'clock, the pipe was screwed together and the hole was made already to insert the pipe into the well; I measured the pipe and went to doing my chores, and when I got through and came to my dinner they had got the well all completed—that is, the pipe was down and the pump was screwed to the platform, all completed, and they were pumping water.

Q. 4. State if you ever had this pump up since.

A. I raised it a foot once; I did it in order to get it above the kitchen floor; Mr. Hovey and I did it by hand; we then put in a short joint of pipe, so that the point was back in its original position.

Q. 5. When you raised it up to put in this joint what kept the pipe from falling back to its original position?

943 A. We took a pair of well tongs and unscrewed the pipe from the pump; we left the tongs on the pipe to hold it so it would not fall down.

Q. 6. How long after it was first put down did you do this?

A. Little better than a month.

Q. 7. It took both of you to raise it, did it?

A. I think I could have done it alone, but we both took hold; Mr. Hovey had a lame back at the time.

Q. 8. Was the earth against the pipe when you took it up?

A. It was not, as far as I could see; at the top it was not.

Q. 9. How much space was there around the pipe?

A. I don't know the difference in the size of the pipe and the auger; it was in solid clay.

Q. 10. How far down did this opening around the pipe extend?

A. I don't know; did not see.

Q. 11. It pulled easier after you got it started, didn't it?

A. I did not pull on it at all until I gave it a twist; then it lifted easy.

Q. 12. Twisted very easy, too, didn't it?

A. It didn't twist very easy or very hard; I did not use my full strength on it.

Q. 13. You didn't have to apply your full strength to twist or lift it?

A. No; not my full strength.

Q. 14. It wabbled around and was very loose in the hole, wasn't it?

A. It was a little loose; not very loose; not as solid as I wished to have it.

Q. 15. How long was that piece of pipe that was put into it?

A. One foot.

Q. 16. Did you make the dirt firmer around the pipe when you got through?

A. I did not tamp it to make it tighter—that is, I did not intend to make it tighter.

Q. 17. Why didn't you if it was not as tight as you wanted it?

944 A. It was as tight as I wanted it after I let it down to its original point in the quicksand.

Q. 18. Will you swear that you did not have to push or force that point back to where it belonged?

A. It dropped about six inches, and I had to force it the other six inches.

Q. 19. Then I understand you to say that this pipe was tight at the bottom when you first attempted to move it?

A. I did not try to lift it until I twisted it; then it lifted quite easy; it was tight.

Q. 20. Why did you want the pipe tight at the bottom?

A. Because I thought it stood firmer—would be more durable, be less liable to work at the joints.

Q. 21. Did Mr Hovey tell you it would be better to have it tight at the bottom?

A. No, sir; that was my own theory.

Q. 22. Go on and tell what you know about the construction of this second well.

A. As far as I know, it is exactly the same as the other, only it is 2 feet less in depth.

Q. 23. In each of these two wells does the tubing that projects into the ground form the lining of the well?

A. They form the well proper; they form the lining of the well.

Q. 24. Did the tubing that projected into the earth in these two wells form the lining and the only lining of the wells?

A. They did.

Q. 25. Have you used these wells ever since they were constructed?

A. The last one that was put down I have; the other I neglected to put straw around, and it froze and burst about 3 weeks ago; I have not used it since.

Q. 26. Did you ever have any occasion to remove the platform of the 1st well and look in?

A. I did when it froze up; removed the trap door, went down, and saw it was burst.

945 Q. 28. Was the dirt close against the pipe at the bottom of the dug hole when you went down to examine it?

A. I did not notice whether it was or not.

Q. 29. What Mr. Hovey was this that put down your wells?

A. I have forgotten his full name; it was E. something; E. S., I think, of Independence, Iowa.

Q. 30. Was there anything said in the conversation about Hovey Brothers?

A. He introduced himself to me as Mr. Hovey, of Hovey Bros., iron wells, of Independence, Iowa.

Q. 31. Have you ever had any license from any one to construct or use these wells?

A. I have not.

Complainants rest.

Cross-examination:

X Q. 1. Who put in your second well?

A. The same man that put in the first.

X Q. 2. I understand you to say that you did not see any driving down on either well?

A. I did not; I was not present when they were put down in the ground.

X Q. 3. Were the pipes loose in the holes when they were first put down?

A. I could not swear positive, because the curb and platform was on, and I did not look to see.

X Q. 4. Did you at any time after that examine to see if there was any space between the pipe and the earth in either of the wells?

A. I did when I raised the first well a foot; it was a ¼ to ½ an inch—the difference between the pipe and the hole; it was in solid clay and could not rattle in.

X Q. 5. Was the second well in clay?

A. It was.

946 X Q. 6. After you had put on the foot of pipe when you repaired the first well with what did you force it back to position?

A. We pressed down on the pump, then gave it a kind of wiggle, and pressed again until the pump came firm on the floor.

X Q. 7. How long did you have the pipe up when you was repairing it before you let it drop back?

A. Just long enough to screw it together and screw the pump on; probably twenty or thirty minutes; cannot say exactly—from fifteen to thirty minutes.

Redirect:

R. D. Q. 1. How far did this clay extend down?

A. I do not know; was not there when the hole was bored.

R. D. Q. 2. Did you notice any knuckles on this pipe?

A. One that I know of certain, and that was where the screen point was screwed onto the pipe; further than that I cannot remember.

R. D. Q. 3. How much larger was the knuckle in diameter than the pipe?

A. From an eighth to a quarter of an inch.

R. D. Q. 4. Then you swear, do you, that the knuckle was only from an eighth to a quarter of an inch larger in diameter that the pipe itself?

A. I do not swear positively, but to the best of my judgment.

R. D. Q. 5. Then the knuckle only extended about one-sixteenth of an inch beyond the diameter of the pipe?

A. I cannot swear positive as to the distance.

(Signed) AMBROSE LELAND.

STATE OF IOWA, *Black Hawk Co.:*

I, Wm. I. Burr, a justice of the peace in and for Waterloo t'w'p, Black Hawk Co., Iowa, do hereby certify that the above deposition of Ambrose Leland was sworn to and signed by the said deponent before me and in my presence, and that the said deposition was taken by me on the 6th day of January, 1880, between the hours of 8 o'clock and 11 o'clock p. m., at the place for the purpose named in the caption hereof.

Witness my hand this 7th day of January, 1880.

(Signed) W. I. BURR,
Justice of the Peace.

947 A. W. MCCLELLAN sworn, who deposes and says, in answer to the following interrogations:

Q. 1. What is your name, age, residence, and occupation?

A. A. W. McClellan; 47; East Waterloo, Black Hawk Co., Iowa; farmer.

Q. 2. How many wells have you, and where are they located?

A. I have two in section 10; S. ½ of S. W. ¼, 89, 13.

Q. 3. Do you reside on this described land?

A. I do.

Q. 4. What is the position of these wells with reference to your dwelling-house.

A. One of them in the house, the other at the barn.

Q. 4. What kind of wells are they?

A. One is a bored well; the other, I cannot say whether it is bored or driven.

Q. 6. Which do you claim is the bored well?

A. This one at the barn.

Q. 7. When were these wells put down, and by whom?

A. The one at the house, I cannot give the exact date; somewhere about 11 or 12 years ago; were put down by Balcomb and Harmon; the other was put down by Mr. Cox, I think, about 1871 or 1872; might have been in 1873.

Q. 8. Was you present during the construction of the well at the house or at any time during the construction thereof?

A. I was not.

Q. 9. Who furnished the material for that well?

A. Mr. Balcomb.

Q. 10. What material was used in the construction of it?

A. I suppose it was the same as was used in the construction of all driven wells; all I could see was the pipe in the cellar, and the pump; I think the size of the pipe was 1¾ inch.

Q. 11. How do you know that it is a bored well?

948 A. I did not say that it is a bored well; I understand you to mean the one at the barn.

Q. 12. Is that all that you have ever seen of the material used in that well, the pump and the pipe in the corner of the cellar, as stated in your previous answer?

A. It is.

Q. 13. Was this well put down by contract?

A. I hired him to come and put the well down.

Q. 14. What kind of a well did you contract or he agree to put down for you?

A. He called it a drive well.

Q. 15. Was that the kind of a well you ordered put down?

A. That was the kind of a well we talked of.

Q. 16. Did he furnish you a bill of particulars when you settled for that well, including the material used?

A. No.

Q. 17. What kind of soil is it where this well is driven?

A. There is a kind of marl down a piece—a clayey kind of substance—down about 4 or 6 feet, then it is sandy; it was driven in the cellar, and from the cellar floor down the soil is sandy.

Q. How long have you used that well?

A. Ever since it was put in.

Q. 19. Have you obtained a good supply of water from it during that time?

A. Plenty for the house use.

Q. 20. Who put in the well at the barn?

A. Mr. Cox.

Q. 21. Did you assist in the making of that well, or was you present at any time during the construction of it?

A. I helped him put the braces in as far as it was dug down.

Q. 22. How far did you dig down, to where the boxes were put in?

A. I think some 6 or 7 feet.

Q. 23. How was the well constructed after that?

949 A. It was bored down to the water; then he took the pipe, shoved it down to the water, took a square scantling, think he probably drove it 2 or 3 feet, and screwed his pump on.

Q. 24. Please describe the pipe that he drove down and the point that is on the same.

A. The pipe was 1¾ inch; holes drilled in its screen, soldered on over the holes, wooden plug in the end of it.

Q. 25. How large was the hole that was bored down to the water, as you say? What was the diameter of it, as near as you can give it?

A. I think it was bored with a $2\frac{1}{2}$-inch auger.

Q. 26. Have you pumped water out of that well and used it ever since it was put down?

A. I can answer that two ways. The well failed and I had to have it taken up and overhauled. We used it up to the time of taking it up but it did not amount to anything.

Q. 27. How long did you use it before you took it up?

A. Somewhere in the neighborhood of 6 months.

Q. 28. Describe particularly how you got the pipe out of the ground.

A. The men who overhauled it took it with their hands and pulled it right out.

Q. 29. How many men were there who assisted in pulling it up?

A. Two (2) of them.

Q. 30. What was the length of the pipe and what was the character of the soil?

A. 16 feet from the bottom of the curbing; the soil is sandy.

Q. 31. Did these two men use any other appliances than their hands or aid in taking the pipe out?

A. No, sir.

Q. 32. Describe particularly how this pipe was replaced.

A. With a sand point screwed onto the pipe and shoved right back into the hole again; then they took this square stick and jammed it a few times; that was the amount of work required to put it back.

950 Q. 33. Was the earth packed tightly around this pipe at the time it was drawn, at the time of the repairing?

A. It was not very tight.

Q. 34. Was the earth against the pipe or around the pipe at the time you withdrew the pipe to repair it?

A. I should think it was; I could hear it rake against the sand or gravel.

Q. 35. When this pipe was replaced after repairing it was it let drop in the hole so that its weight would send it as far in the water-bearing strata as its weight would carry it?

A. Yes; it was dropped right in and went within a foot and a half of where we wanted it, or nearly that.

Q. 36. Have you used this well ever since that time and have you obtained a regular supply of water from it?

A. After we put on the sand point we pumped out the sand; then withdrew it, took the sand point off, put on a different point. Since then I have used it right along every day.

Q. 37. Have you ever obtained license from the complainants or any other person to use these wells?

A. I have not.

Complainants rest.

Def't cross-examines witness:

X Q. 1. When was this well at your house put in? Give the year as near as you can?

A. 11 or 12 years ago.

X Q. 2. Was it before the year 1871?

A. I think it was.

X Q. 3. How long before that?

A. I cannot tell; it was either 11 or 12 years ago; that is as near as I can get at that question.

X Q. 4. Did you own and occupy the place when this well was put in?

951 A. I did.

X Q. 5. Have you owned and occupied it ever since?

A. I have.

X Q. 6. When the well was put in at the barn did the person putting it in claim to have a license for putting down that kind of a well?

A. I think he claimed to have a license for putting them in a certain portion of territory.

X Q. 7. Who repaired the well for you?

A. Mr. Hovey.

X Q. 8. Did he claim to have a license for putting them in?

A. I cannot say whether he did or not.

X Q. 9. When the well was first made was the pipe loose in the hole?

A. It was.

X Q. 10. What kind of a point was on the first well—the one in the house?

A. I cannot say; I never saw it.

X Q. 11. Why did not the well at the barn work before you overhauled it?

A. The pipe would fill up with sand so we could draw no water.

X Q. 12. Did the sand go through the screens that were over the holes in the pipe?

A. It did.

X Q. 13. What would have been the effect if there had been no screens over the holes?

A. The pipe would have filled with sand, likely.

X Q. 14. Did your screens over the holes in the pipe break at any time?

A. No, sir; not that we could see when we drew it out.

X Q. 15. What is the formation in the water-bearing stratum where your well is made?

A. Very fine quicksand.

Defendant rests.

A. W. McCLELLAN.

952 STATE OF IOWA, *Black Hawk Co.:*

I, Wm. I, Burr, a justice of the peace in and for Waterloo township, Black Hawk Co., Iowa, do hereby certify that the foregoing deposition of A. W. McClellan was sworn to and signed by the deponent before me and in my presence, and that the said deposition was taken by me on the 7th day of January, 1880, between the hours of 8 o'clock a. m. and 11 o'clock p. m., at the place and for the purpose mentioned in the caption hereof.

Witness my hand this 7th day of January, 1880.

[SEAL.] W. J. BURR,
Justice of the Peace.

953 STATE OF IOWA, } ss:
Black Hawk County, }

I, A. J. Edwards, clerk of the district court in and for said county (a court of record, using a seal of office and having common-law jurisdiction), do hereby certify that W. I. Burr was, on the 6th & 7th days of January, A. D. 1880, a legal acting justice of the peace within and for the county of Black Hawk, duly commissioned and qualified according to law and authorized to take acknowledgments and administer oaths in said county.

In testimony whereof I have hereunto subscribed my name and affixed the seal of said court, in Waterloo, in said county of Black Hawk, this 18th day of July, A. D. 1881.

[SEAL.] (Signed) A. J. EDWARDS,
Clerk District Court.

954 [Endorsed:] Andrews *vs.* Hovey. Deposition of T. Dobson *et al.* Opened & filed Oct. 18th, 1881. E. R. Mason, clerk.

955 "B."

W. D. ANDREWS *et al. vs.* GEORGE HOVEY *et al.*

In pursuance of stipulation and by agreement of parties the following evidence was taken before me, at the city of Independence, Iowa, on the 14th day of January, 1880.

Bickel, West, & Eastman appeared for plaintiffs and Lake & Harmon appeared for the defendants.

ELIAS S. HOVEY, being produced, sworn, and examined on the part of plaintiffs, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Elias S. Hovey; am 56 years of age; reside in Butler county, Iowa; am a farmer.

Q. 2. Was you ever a member of the firm of Hovey Bros., of Independence, Iowa, who were engaged in the manufacturing of iron or tube wells?

A. I was.

Q. 3. Of whom was that firm composed?

A. In the first place, of E. S. and E. A. Hovey; afterwards George was taken in as a partner; George Hovey is the defendant.

Q. 4. At what time did he become a member of the firm of Hovey Bros.?

A. I can't tell exactly; I think in the spring of 1870 or '71.

Q. 5. What time in the spring of '70 or '71?

A. Well, March or April, I think.

Q. 6. How long did that partnership of Hovey Bros., of which George was a member, continue?

A. I should think 2 or 3 years; I have no dates of which I could be certain.

Q. 7. What year was it dissolved?

A. I could not tell surely.

Q. 8. Was it in '73 or '74?

A. I could not tell.

Q. 9. During the time you were in partnership did you do any work in Fayette county?

A. I could not tell that, as we worked separately most of the time.

956 Q. 10. Have you got any books or papers pertaining to your business while George Hovey was a partner?

A. No, sir.

Q. 11. What has become of them?

A. I delivered them to my brother, E. A.

Q. 12. When?

A. I think about two years after we dissolved partnership.

Q. 13. Go on and give a list, as far as you can, of all persons for whom the firm of Hovey Bros., when Geo. Hovey, the defendant, was a copartner, put down wells in Johnson county, Iowa.

A. I don't know as I was ever in Johnson county; I don't — but I was.

Q. 14. Go on and give a list, as far as you can, of all persons for whom the firm of Hovey Bros. put down wells while Geo. Hovey was a partner of said firm in the State of Iowa.

A. Not having any books for reference, I could not give the names; I could not make a list.

Q. 15. Then I understand you to say that you cannot give the name of any person for whom you put down wells in Iowa at that time?

A. I don't pretend to say that exactly, but I can't give a list.

Q. 16. Go on and state every one that you can now remember.

A. Being engaged in the business before and after, and not having any dates to refresh my memory, I could not positively swear to one.

Q. 17. State, as near as you can, about how many tube wells you put down during the time Geo. Hovey was a copartner with you.

A. The most of the time he was a partner my work was outside the State and alone from the firm; have no idea what my partners done.

Q. 18. State, if you now remember, whether it was the spring of '70 or '71 that you went into partnership with George Hovey.

A. I think '71, but am not positive.

957 Q. 19. What was the title of the firm after he went out of the firm?

A. That dissolved the firm and it was every one for himself.

Q. 20. Who did you have in the employ of the firm at the time you were in partnership with George Hovey?

A. Well, I could not give them all. I think George Woods, John Sankey; am not positive about Sankey. I know George's boys; some of them worked for us; there were others, but I could not state.

Q. 21. Where does George Woods now reside?

A. I do not know.

Q. 22. Where was he when you last knew of him?

A. He was working for Ed. Cobb in Independence about 5 years ago.

Q. 23. Were these tube wells that were put down in Iowa by the firm of Hovey Bros., while George Hovey was a member, put down according to the process or description given in the letters patent issued to Elias S. Hovey, of Independence, Iowa, or was it by a different process and in a different manner that these wells were constructed?

A. Before George became a member we had arrived at this process and found it was the only process by which we could make wells successfully or easily; that was the method we adopted and I suppose they were all made in that manner.

Q. 24. Are you the patentee named in the patent referred to?

A. I am the Elias S. Hovey, of Independence, Iowa, to whom a patent was issued.

Q. 25. For what purpose was the patent issued?

A. I suppose it was to cover this new process of constructing tube wells.

Q. 26. What was the date of the discovery of that new process that was patented by you?

A. I don't think any man could fix a date; it was not discovered in one day or one year.

Q. 27. Was it previous to your entering into copartnership with George Hovey?

A. Yes, sir.

Q. 28. About how long?

958 A. Not very long.

Q. 29. Was it a year?

A. I think not.

Q. 30. Was it six months?

A. I could not tell.

Q. 31. What were the points that you designed to cover by your invention?

A. Of separating the fine sand and dirt from the gravel and coarser sand and cleaning out a water bed for the fine screen that was finally put on to the bottom of our well so that the water would flow more freely.

Q. 32. How did you make tube wells prior to this invention?

A. Well, we made them a good many different ways; usually by putting on the fine screen, driving that into the water bed, attaching a pump.

Q. 33. Now describe the difference in your manner of constructing these tube wells after you had made this discovery for which you say you obtained a patent and before that date.

A. When we first commenced we always put on a screen that we intended to leave for the water to come through into our well; we found that we could not get, one out of twenty, that water would flow freely from the pump; afterwards, in all instances, we drove down a screen coarser than the one we intended to leave and pump water and sand and dirt; then pulled that out, attached our fine screen, and put that down; then the water flowed more freely.

Q. 34. How much further would you drive the first tube than you would the second—the one you left in the ground?

A. Usually not much.

Q. 35. Do you know a man by the name of George W. Brown, in Fayette county?

A. Well, there is a man by the name of Brown. I think it is George; I won't be positive.

Q. 36. Do you remember of putting down a well for him?

A. I helped to pull up an old well and fix it over; I think moved it.

959 Q. 37. When was that?

A. Well, I think '69 or '70.

Q. 38. Do you know a man by the name of V. L. Johnson who lives at Johnson's Mills, Fayette county, Iowa?

A. I did some years ago.

Q. 39. Did you ever put down a well for him?

A. I helped work there at a well. I have forgotten whether we accomplished it or not.

Q. 40. Describe how you put down the well there; the time you made this well.

A. I think we bored as usual; it would be impossible for me to describe it.

Q. 41. How many methods had you at that time of making tube wells?

A. Don't know that we had more than one.

Q. 42. Describe that method fully.

A. I cannot.

Q. 43. Then you don't know what process you did use, notwithstanding you say you used but one process at the time?

A. No, sir; I do not, as the exact time of our change of process I cannot state.

Q. 44. Was this change as far back as 1869?

A. I cannot tell.

Q. 45. Was George Hovey engaged in making tube wells after the dissolution of the firm of Hovey Bros.?

A. I think so.

Q. 46. Have you no data or information by which you could determine when the firm of Hovey Bros. commenced or when it ended?

A. None that I know of.

Q. 47. What time did you quit business and go on your farm?

A. I think it was four years last April.

Q. 48. How long before you went on your farm did the firm of Hovey Bros. dissolve?

A. Don't remember; more than a year.

Adjourned until 1.30 for dinner.

960–961 Met, pursuant to adjournment, at 1.30 p. m., Elias S. Hovey on the stand :

Q. 49. What counties in Iowa did you put down wells while George Hovey was a member of the firm of Hovey Bros. ?

A. I could not state what counties from the fact that I was not with them most of the time.

Q. 50. Who were the members of the firm of Hovey Bros.? Give the names.

A. E. S., E. A., and George.

Q. 51. Did you not know, at the time you applied for the patent you speak of, that Nelson W. Green, at a long time before, published a pamphlet in which he gave a description of the same process which you claim to have patented ?

A. I did not.

Direct rests.

X:

X Q. 1. State whether or not the process for which you obtained a patent covered anything more than the cleansing out of the coarse sand from the bottom of the well.

A. I don't know whether it did or not.

X Q. 2. Was this process invented and patented to you before Geo. Hovey went into the firm of Hovey Bros. ?

A. It was invented, but not patented. I think it was applied for before he went in ; I am not positive.

X Q. 3. After George Hovey went into the firm of Hovey Bros. did you see him make any wells ?

A. I think I did see him help.

X Q. 4. How many did you see him make ?

A. Some, but not many.

(Signed) E. S. HOVEY.

Subscribed to in my presence and sworn to by E. S. Hovey this 14th day of Jan., 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

(En'd :) Filed Nov. 26, 1880. E. R. Mason, clerk.

962 Andrew Fountain, of lawful age, produced, duly sworn, and examined, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. Name is Andrew Fountain ; age is 49 years ; live in Lucas township, Johnson Co., Iowa ; occupation, a farmer.

Q. 2. Do you know the defendant, George Hovey, of Independence, Iowa ?

A. I am not much acquainted with him ; have only seen him two or three times.

Q. 3. Do you know of the firm of Hovey Bros., of Independence ?

A. I don't know anything about them, except those who were at my place to put my well in.

Q. 4. How many wells have you, where are they located, and what kind of wells are they?

A. I have but one; it is close to my house, in Lucas township, Johnson Co., Iowa; it is one of those iron pumps.

Q. 5. When was this well made, who made it, and how was it constructed? State particularly.

A. I think it was about seven years ago last summer; it was made by Mr. Hovey; it was bored down—don't know how far; first place they dug a hole and then bored; I was not there all the time.

Q. 6. Who were present during the time this well was made?

A. There was no one except myself and family.

Q. 7. You say that the parties putting down this well bored. What size auger did they bore with and how far did they bore? State as near as you can.

A. I think it was a two-inch auger; I think they bored about 20 feet.

Q. 8. What did they do when they got through boring?

A. They put down a pipe and pumped out the fine sand; it was an iron pipe.

Q. 9. Did they force or drive the pipe in the ground?

A. I did not see them drive it in the ground; I saw them have a hold of the pipe, but don't know just how they fixed it.

963 Q. 10. Will you swear on your oath that you did not see them drive, force, or press this pipe into the ground after boring as you have described?

A. I did not see them drive it in.

Q. 11. Do you refuse to give any other answer to above question?

A. I don't know anything more about it than what I have told.

Q. 12. Interrogatory No. 10 is now read to the witness and a full answer is insisted upon.

A. I did not see them drive it or force it or press it into the ground; I went off to my work and I don't know just how they fixed it.

Q. 13. How long have you used this well?

A. I think it is seven years last summer.

Q. 14. How do you get water out of it?

A. I pump it out.

Q. 15. Have you ever taken this tube up since it was first put down?

A. No, sir.

Q. 16. Do you obtain a good supply of water from this well, and has it furnished a good supply ever since it was first put down?

A. Yes, sir.

Q. 17. Did you contract with George Hovey, the defendant, or Hovey Bros. to put this well in; and, if so, what kind of a well did you contract for, and was it or was it not called a driven or drive well?

A. I don't recollect which I contracted with; there was neither of the Hoveys along; his work hands put it in; I don't recollect as they said how they were to put it in; they said they would put in an iron pump; they said they would put in a galvanized iron pump; that is all I know about it.

Being unable to complete the taking of this deposition, I adjourned the further taking of the same to one and a half o'clock p. m., Jan. 21st, 1880.

[SEAL.] (Signed) JAMES W. CONE,
Notary Public, Johnson Co., Ia.

964 JAN. 21ST, 1880—1½ o'clock p. m.

Met pursuant to adjournment.

Q. 18. Who did you pay for putting in this well; and, if you took a receipt for it, how was it signed?

A. I don't recollect who I paid. I paid it, though. I gave my note for the same and paid the note at the bank here and got the note.

Q. 19. Have you that note in your possession now?

A. I cannot tell whether I have or not.

Q. 20. Who did you give this note to?

A. I gave it to the man who put in the well, and don't know to whom it was made payable.

Q. 21. What kind of soil is it where this well is made? Describe it, as particularly as you can.

A. It is sandy soil mostly. It is pretty much all sand where they dug down. There are some places where it is all sand, and some where it is clay. It is all sand where they made this well. There is no clay there that I know of.

Q. 22. Does this iron tube that you have described set firmly in the ground with the earth against the tube?

A. Yes; it sets firm in the ground, so far as I know.

Q. 23. Then am I to understand you that there is no space around this tube, but that the earth lays tight against the tube?

A. It is tight around the tube, so far as I know. I never went down to look.

Q. 24. If, at the time you made your affidavit for the defendant in this action, you distinctly remembered how this well was made, and at that time stated you were present during the time it was made, how can you now swear that you were not present and do not know anything about it?

A. I said I was present a part of the time.

Q. 25. Do you know whether in boring this well it was bored to the water or not?

A. I do not know anything more about it. I was not with them all the time, and don't know just how they fixed it.

Q. 26. Then you swear now that you don't know whether they bored it to water or not?

965 A. I don't know whether they bored to water or not, or how they did get it.

Q. 27. Was there any driving done above the water?

A. I did not see any driving done at all.

Q. 28. Can you state positively that there was no driving done above the water?

A. I cannot; I did not see any driving above the water.

Cross-examination:

X Q. 1. Was you present all the time the men were putting in this well?

A. I was not.

X Q. 2. How deep was the hole they dug and boxed up before they commenced boring?

A. I don't know how deep it was.

X Q. 3. Have you ever been down into that hole to see if the earth was pressed tightly against the pipe?

A. I have been down there, but never examined it. There was water standing in the hole that leaked out of the pipe, and I supposed it was tight.

X Q. 4. When the pipe was first put in did you examine to see if the earth was tight against the pipe?

A. No; I did not.

his
(Signed) ANDREW x FOUNTAIN.
mark.

(Attest:) (Signed) JAMES W. CONE.

Subscribed and sworn to by Andrew Fountain before me this 21st day of January, 1880.

[SEAL.] (S'g'd) JAMES W. CONE,
Notary Public, Johnson Co., Iowa.

966 MARY J. LOAN, of lawful age, produced, sworn, and examined, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name, Mary J. Loan; age, 44 years; residence, Pleasant Valley township, Johnson county, Iowa; occupation, housewife.

Q. 2. Have you ever had a well made in this county? If so, state where, by whom made, when it was made, and how it was constructed.

A. I had a well made in Pleasant Valley township, Johnson county, Iowa; made by Gorge Hovey, as near as I can tell; it was put in six years ago last summer; can't give the month; I paid but little attention to the manner in which it was constructed, as I was busy with my work in the house; my husband attended to the business. In the first place, I know they dug a place about four feet deep and framed that up, and as for the balance can't tell anything about it until they had it about completed. As I was passing the porch one of the boys said I would soon have water without carrying it. They were fixing something about the pipe, and one of the boys stepped off the end of the porch and picked up a board about a foot square and asked Mr. Loan if he had a maul which they could have for a little while; he said he had a sledge-hammer, and they laid this board on the pipe and then hit it one or two licks. This is all I can say about the pump.

Q. 3. What kind of a pipe was this?

A. I suppose it was iron.

Q. 4. Did you see the parties who made this well force the pipe down in any other way than the way which you describe?

A. I did not.

Cross-examination:

X Q. 1. Was George Hovey present when this well was put in?

A. No, sir; I don't think he was.

X Q. 2. Did you at any time have a visit from the attorneys or agents of the complainants in this action to get you to make an affidavit?

A. Yes, sir.

967 X Q. 3. State whether they made you any promises about not bringing suit against you; if so, state what they said.

A. Yes, sir; Mr. Holmes did. He said he had been down in the valley trying to get some witnesses. He said Mr. Emmons, a brother of mine, would give him no satisfaction, and he would not come off as well as he thought he would by it. He assured me that there should nothing come against me for the pump; that he would clear me, and I told him I would not swear to a falsehood for Mr. Hovey or him or any one else; that I had paid for the pump once, and if I had to pay for it again it was all right.

X Q. 4. Did Mr. Holmes represent that he was working for Mr. Hovey or against him?

A. He represented that he was working against him.

X Q. 5. Was this promise made before you had signed the affidavit?

A. I really cannot say.

Redirect:

R. D. Q. 1. Do you know whether or not in the making of the well described in your direct examination the pipe was driven into the ground as much as three feet?

A. No; I cannot say whether it was driven a foot.

R. D. Q. 2. Can you say that it was not driven three feet?

A. No, sir; I could not.

Recross-examination:

R. X Q. 1. Did you see them drive any on the pipe except the one or two strokes you spoke of in your first examination?

A. No, sir; I did not.

her
(Signed) MARY x J. LOAN.
mark.

(Attest:) (S'g'd) JAMES W. CONE.

Subscribed and sworn to by Mary J. Loan before me this 21st day of January, 1880.

[SEAL.] (S'g'd) JAMES W. CONE,
Notary Public, Johnson Co., Iowa.

968 GEORGE W. LOAN, of lawful age, produced, sworn, and examined, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is Geo. W. Loan; age is 46 years; residence, Pleasant Valley township, Johnson county, Iowa; occupation, a farmer.

Q. 2. Do you know George Hovey, the defendant in this action?

A. I know two of the Hoveys, but don't know the given names of either; I think one of them introduced himself to me as Geo. Hovey; I think he was the slimmest one.

Q. 3. Did Geo. Hovey or Hovey Bros. ever put in a well for you? If so, state particularly how it was constructed.

A. Their men put in a well for me; it was an iron well; he bored a hole in the ground; before that he dug a hole about five feet deep in the ground, and then he bored the hole, and then put down what he called a sand pump and pumped out considerable sand and water; then pulled that out and put down the pump that is there now on my place.

Q. 3½. After boring as you have described, did they force, drive, or in any other way place this tube below the point at which they bored?

A. I can't say whether they forced it below the point to which they bored or not; I did not see them driving; I was there all the time, to the best of my knowledge.

Q. 4. What kind of soil is it where this well is put down?

A. It is sand and clay.

Q. 5. About how far down does the clay extend?

A. The only clay I know of after he dug down to the bottom of the box is a strip of clay an inch thick; this, I think, was twelve feet from the surface.

Q. 6. About how long, as near as you can state, was the entire length of the pipe which forms this well?

A. Between 23 and 30 feet.

Q. 7. How far did they bore in making this well?

A. The depth of the well, I suppose.

969 Q. 8. Is there any quicksand below the clay you have spoken of?

A. Not that I know of till you come to water.

Q. 9. How far is it from the surface of the ground until you come to water where this well is made?

A. I cannot say.

Q. 10. How are you able to state that they bored the entire length of this well?

A. The reason I make the statement of that kind, they put the pump down and took their hands and wrenched it around awhile and tried it and said that there was water a plenty; when they put the platform on top they had to raise it a little, and they tried it again before they made the platform stationary, and said that there was plenty of water, and fastened it down.

Q. 11. When they got their pipe ready to place in their bored hole, before they finally let it down, how far did the pipe project above the ground?

A. I don't recollect how far up it projected; it may have been from 6 to 8 feet.

Q. 12. Did you see them lower the pipe down from this point above described; and, if so, did they lower it gently or did they let it drop?

A. I saw them let it down; they lowered it gently and did not let it drop; they did not let go it.

Q. 13. Is the earth packed tightly around this pipe?

A. Yes, sir.

Q. 14. Does it furnish a continuous supply of water?

A. When the sucker and packing are all right it does.

Q. 15. When was this well made?

A. Between 6 and 8 years ago.

Q. 16. Do you know of the defendant, Geo. Hovey, having made other wells?

A. I have seen their men at work at probably two other wells.

Q. 17. Did you ever see them force or drive the tube into the ground while constructing these wells?

A. No, sir; I did not.

970 Q. 18. You have stated that in making your well you saw them take hold of the pump and wrench it around; please state, whether or not, this was for the purpose of settling the pipe further in the ground.

A. I suppose it was; they said it was to make it solid.

Q. 19. Does the inside of this tube that was placed in the ground form the only lining to the well?

A. I suppose so; I don't know of any other lining.

Cross-examination:

X Q. 1. Is there nothing mixed with the sand where Hovey made this well for you?

A. I can't say, only as they bored out the earth there might have been some gravel with it.

X Q. 2. When they put this tube into the hole which they had bored, was the earth then packed close around the tube?

A. No, sir.

X Q. 3. When did you first notice that the earth was packed closely around the tube?

A. When they had pumped out water and washed the sand around it—about an hour, or it might not have been so long, after they put the pump down.

X Q. 4. Was this around the temporary or permanent one?

A. Around the permanent one.

X Q. 5. When the water was pumped out and washed sand in around the pipe, did they pack it in there?

A. I think not; they said it would naturally pack in solid.

X Q. 6. How much space was there between the pipe and the sand before they pumped any water in?

A. There was about a quarter of an inch.

(Signed) GEO. W. LOAN.

Subscribed and sworn to by Geo. W. Loan before me this 22d day of Jan., 1880.

[SEAL.] (Signed) JAMES W. CONE,
Notary Public, Johnson Co., Iowa.

971 WM. GAUNT, of lawful age, produced, duly sworn and examined, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is Wm. Gaunt; age, 55 years; residence, Pleasant Valley township, Johnson Co., Iowa; occupation, a farmer.

Q. 2. Do you know the defendant, Geo. Hovey, or Hovey Bros., of Independence?

A. I know the Hoveys, but could not call them by name separately. It seems to me one of them called himself George and there was another one. They were at my house frequently.

Q. 3. State if you have an iron or tube well; and, if you have, state who made it, and how it was constructed.

A. Yes, sir; I have what I call a tube well—iron; it was made by the Hovey Bros. They commenced to make the well by digging down about 5 or 6 feet. They took a 2 or 2½ inch auger and bored in the ground about 20 or 22 feet. They then got what they called their sand pump and put it in this hole and drove it about a foot, I think. They primed the pump and pumped sand and water until the water came near clean. They then took that pipe and pump out, and then they commenced to put the other one in, and kept coupling the joints on with tongs until they got 21 feet of pipe and pump all together. Then they primed the pump and pumped 15 or 20 buckets of water.

Q. 4. When was this well made?

A. As near as I can tell, it was from 6 to 8 years ago.

Q. 5. When you say they bored down 21 or 22 feet do you mean to be understood in that way?

A. I mean to take it from the level of the surface of the ground before any was dug out.

Q. 6. What kind of soil was it where this well was made?

A. About 6 to 7 feet in a black sandy loam that comes into yellow sand, and that is as far as I have ever seen into it.

Q. 7. What was on the end of the pipe placed in the hole you have described?

972 A. A wooden plug was in the end; the pipe for about 3 feet had small holes in it and with a screen on the outside.

Q. 8. What is the size of this iron tube or pipe?

A. From the best of my knowledge, it is from an inch and a fourth to an inch and a half inside measure.

Q. 9. What is the diameter of these couplings which you have described?

A. They are from an inch and three quarters to two inches in diameter. This is outside measurement. I never measured them.

Q. 10. Was this tube or pipe forced or driven into the ground?

A. It seems to me not; only the mud pump was driven down about a foot.

Q. 11. Did you see the last tube let into the well?

A. Yes, sir; I saw the whole of it.

Q. 12. Now, please state whether this tube was lowered down the dug hole gently, or was it let drop any portion of the way?

A. It was let down, as near as I can recollect, gently and carefully. There was two in the dug part putting together the couplings and I was above helping.

Q. 13. Is the earth packed tightly around this tube and does this tube form the well, or does the inside of the tube form the only lining to the well?

A. It was packed tight. They were tramping around it. The tube forms the well and the inside of the tube forms the only lining to the well.

Q. 14. Have you ever taken this well up since it was first put down? If you have, state when and how often.

A. I have taken it up once since it was first put down, about three or four years ago, as near as I can recollect.

Q. 15. Was the earth packed tightly around the tube when you took it up?

A. Yes; the earth was packed tightly.

Q. 16. How did you get it out of the ground?

A. I took the top part off and a man and myself with a rope and lever lifted it up.

973 Q. 17. Has this well supplied you with a continuous supply of water since it was first put down, except such time as you were repairing it?

A. Yes, sir; have had all the water I wanted for stock and all.

Q. 18. You say at the time the well was first made that those making it tramped the earth tight around the pipe. Now, state if anything was said by those making the well at that time as to why they packed the earth tightly around the pipe.

A. There was nothing said by them.

Direct examination rests.

Cross-examination:

X Q. 1. Did the men that put in this well pack the dirt against the pipe, or did they just walk around on the bottom of the dug pit while fixing the pipe?

A. They were walking in there and tramping around, and the earth was up against the pipe when I saw it.

X Q. 2. Did not they move this pipe while putting on the platform over the pit?

A. The spout and handle were the wrong way and they turned pump and pipe around, as I wanted to.

X Q. 3. What did they use to turn it with?

A. One had a pair of tongs on the pipe and the other had hold of the pump and told him when to stop; it seemed to turn easy.

X Q. 4. Did not this moving of the pipe pack the dirt back away from the pipe again?

A. I could not state, as I did not go down to see it.

X Q. 5. When this pipe was first put in the hole was there not a space between the pipe and the earth in the hole?

A. I can't say that I noticed it.

X Q. 6. Was Geo. Hovey present when this well was made?

A. No, sir.

X Q. 7. Were either of the Hovey brothers present?

A. No, sir.

X Q. 8. Were either of the Hoveys present when you took up this well?

974 A. No, sir.

X Q. 9. Did they or their men have anything to do with taking it up about three or four years ago?

A. No, sir.

X Q. 10. Did you and the other man have any difficulty in lifting it out?

A. No, sir; it came out easy.

(Signed) WILLIAM GAUNT.

Subscribed and sworn to by Wm. Gaunt before me this 21st day of Jan., 1880.

[SEAL.] (Signed) JAMES W. CONE,
Notary Public, Johnson Co., Iowa.

Being unable to complete the taking of these depositions, and by consent of counsel, adjourned the further taking of the same to seven and one-half o'clock p. m. of January 21st, 1880.

[SEAL.] (S'g'd) JAMES W. CONE,
Notary Public, Johnson Co., Iowa.

975 JAN'Y 21ST, 1880—seven and one-half o'clock p. m.

Met pursuant to adjournment.

DAVID B. COX, of lawful age, produced, sworn, and examined, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is David B. Cox; age, 64 years; residence, Lucas township, Johnson Co., Iowa; occupation, a farmer.

Q. 2. Are you acquainted with the defendant, George Hovey, or Hovey Bros., of Independence?

A. I am not particularly acquainted with them. I have seen two men who claimed that was their name. They lived at Independence, Buchanan Co., Iowa.

Q. 3. Was either of these men called George Hovey?

A. The one I have seen the oftenest said that was his name.

Q. 4. What business was he engaged in?

A. They were in the well business.

Q. 5. What kind of wells did they make?

A. What we term iron wells.

Q. 6. Did the defendant, George Hovey, or Hovey Bros. ever make an iron or tube well for you? If you answer they did, state particularly how the wells were constructed.

A. The two old men never did put in a well for me, but there were two young men who claimed to be employees of Hovey Brothers, or Hovey & Co., did put in one well for me. They dug out 976 a pit about five feet deep and boxed it up and then took a big auger and bored down until the sand and water mixed in so they could bore no deeper. They could bore deeper, but when they pulled their auger out it would fill up again before they could get the auger back in. The sand and water would rush in and fill it as full as it was before they bored. I mean after they got to the water-bearing strata. It did not fill up above the water-bearing strata. They took their pipe and put — in the hole they bored, and then two of them took hold of it and shoved it down in the hole the length of a joint and then added another joint until they got enough pipe down, and then put on their pump and pumped out the sand and water until the water became clear. When they got the water clear they took this one up and put another one down in place of it; put on a new pump, the platform, and it was done.

Q. 7. How large was the auger they used in constructing this well?

A. I can't tell exactly, though I should judge it was not far from three inches. It was larger than a two-inch auger.

Q. 8. What was the outside size of the pipe they used in this hole?

A. I should think it was all of two inches.

Q. 9. Was there couplings at the joints which were larger than the pipe? If so, state how much larger than the pipe, outside measurement, as near as you can.

A. I can't say whether there were couplings or not.

Q. 10. What was there at the lower end of this tube or pipe different from the plain pipe, if anything?

A. I did not examine close enough to see anything there except the screens to let the water through.

Q. 11. You say two men took hold of this pipe and forced it down in the bottom of this bored hole? State, as near as you can, how far they forced it down.

A. Not far from twelve feet.

Q. 12. Has this well furnished a continuous supply of water since it was first put down?

A. It has, when it has been kept in repair. The sucker would get off once in awhile, and then it would not draw water.

977 Q. 13. Does the lining of this tube or pipe form the only lining of the well?

A. Yes; it does. That pipe is all there is of the well.

Q. 14. Did George Hovey or Hovey Bros. contract with you for putting in that well, or did you have any dealing with them in reference thereto?

A. Never had any dealing with either one of the old men; contracted with the young men and paid them.

Q. 15. Have you ever examined at any time to see if the earth is packed tightly around this tube; and, if so, how did you find it?

A. I did make an examination last fall or summer. It was tight around the pipe then.

Q. 16. How far down did you examine it from the bottom of the pit?

A. I think it was four or five feet below.

Q. 17. What kind of soil is — where this well is?

A. It is sand after you get down a couple of feet below the surface.

Q. 18. When this well was first made was there any driving on this pipe?

A. I think not. I think they could have shoved it down fifty feet, if they had wanted to.

Q. 19. When did they put this well in for you?

A. It was seven years last summer.

Direct examination closed.

Cross-examination:

X Q. 1. When these men quit boring could you look down this hole and see water in it?

A. I did not try it.

X Q. 2. Then how do you know that the hole filled up when they took out their auger as full as it was before in the water-bearing strata?

A. Because they could not make any progress.

X Q. 3. State how you found they did not make any progress.

A. When they would empty the auger and would put it back they would find they had not gained any, as it was just where it was before.

978 X Q. 4. How deep down were they when they struck this water-bearing stratum?

A. Twelve or thirteen feet from the surface of the ground.

X Q. 5. Did you try the auger to see if you could put it down any further than they had it?

A. I did not.

X Q. 6. Did you look down into this hole to see if you could see the bottom?

A. No, sir; they were at work around the hole, and it was not my business to be at it.

X Q. 7. When they took out the auger to empty it did they bring up sand or material each time?

A. Not much along towards the last, after they got into the water and stuff. It would slip right off of their auger. It appeared so.

X Q. 8. Before they got down to this water did they bring up material with the auger each time?

A. They did.

X Q. 9. When they got ready to put in the first pipe was there an open hole down to the water-bearing stratum?

A. It was open at the top and as far down as I could see. I suppose it was open down to the water.

X Q. 10. When they got ready to put in the second pipe was there an open hole as far down as you could see?

A. There was as far as I did see down. I stood away about six feet from the hole and could not see as far down as though I had stood right over the hole. This is what I intended to say.

X Q. 11. Did the pipe go down without meeting any obstructions, as far as it was down to the water?

A. From all appearances it did.

X Q. 12. When you examined this well last summer to see if the earth was packed around the pipe state at whose instance you made that examination.

A. I have forgotten the man's name; he represented himself as having some interest in this pump business, and belonged about Cedar Rapids, him or his partner.

979 X Q. 13. Did he claim to represent the interest of the complainants in this suit?

A. He did.

X Q. 14. Now, state how you made that examination.

A. There was a hole dug out of one side of the well; this man I spoke of as representing the matter came there with H. D. Rowe, Peter Miller, and Joseph F. Lodge and got permission to dig down by the side of the well until they found water, and while that was dug out he requested us all to examine and see if there was any crevice around the pipe, and we done so, all of us.

X Q. 15. How deep did they dig that hole?

A. I should judge that it was not far from 12 or 13 feet from the surface.

X Q. 16. What did you do in examining the dirt around the pipe?

A. Nothing more than feeling around the edge of the pipe with a small stick, and as they dug down you could see that the sand fell away from the pipe.

X Q. 17. How many years had this well been in use before this examination was made?

A. About 7 years.

X Q. 18. At the time they made this well was there a space between the earth and the pipe in this bored hole? And, if so, state about how much.

A. I did not examine that.

(Signed) D. B. COX.

Subscribed and sworn to before me by D. B. Cox this 21st day of Jan., 1880.

[SEAL.] (Signed) JAMES W. CONE,
Notary Public, Johnson Co., Iowa.

980 PETER MILLER, of lawful age, produced and sworn — examined, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is Peter Miller; age is 42 years; residence, Iowa City, Johnson county, Iowa; occupation, cooper, well borer, and driver.

Q. 2. How many wells have you put down in Johnson county, as near as you can state, of bored or drive wells?

A. I can't say exactly; perhaps 150 or 200.

Q. 3. In what part of Johnson county have you made these wells?

A. All around Iowa City—from 12 to 20 miles around it.

Q. 4. What is the nature of the soil in this territory in which you have made wells?

A. It is hard to say; one place may be all clay, and another, a hundred feet from it, will be all sand.

Q. 5. Do you know the defendant, Geo. Hovey, or Hovey Brothers, of Independence?

A. I don't know them.

Q. 6. In making wells, when there is sand or quicksand subsoil, can you bore a hole with a 3-inch auger and have a hole after the auger is drawn in the sand?

A. Not if there is water with the sand; I can if there is not water in the sand.

Q. 7. About how long would that hole remain in the sand after the auger was withdrawn if there was no water in the sand?

A. That is something I can't tell; some sand will cave in quicker than others, and some will stand longer, but not long. If it is perfectly dry weather it may stand 2 weeks, or if it should rain it would go down right away.

Q. 8. Have you ever made a well in this county such as is called a bored well? If you have, describe the process of making one.

A. I take my three-inch auger and bore down onto the sand to where the water is, and then take pipe with a point on and put it in the hole and have the pipe standing about 6 feet out of the ground, and then I drive that down. Then I screw my sand pump on and try it to see if it pumps; if it does not I drive it down
981 further, and if I can't get enough water I pull it up to strike
a vein where I can get water; then when I get water I put on the pump I want to leave on it and cover it up, and it is done.

Q. 9. How long will the space remain between the pipe and the outside of the bored hole in such a well as you have described?

A. This is something no one can tell. If the ground is clay and the water does not get in it will stand a long time; if water gets in it will wash the dirt in in a short time; if it is sand it will fill in very quick.

Q. 10. You say that in making these wells you bore to the water stratum. Why do you not bore into the water-bearing stratum?

A. It would be a waste of time, as it would leave no hole open.

Q. 11. How far can you force a rod or tube without driving it in the bottom of such a well as you have described—that is, through sand and gravel stratum?

A. That is different. In some places not more than six inches; in others from two to four feet.

Q. 12. Can you, by working the pipe up and down or chucking it, force it ordinarily more than four feet; if so, how much further?

A. I never tried it.

Q. 13. Have you examined a well on the premises of D. B. Cox within the last year? If so, state how you made such examination, for what purpose, and the result of your examination.

A. Yes, sir; I have. I dug a hole on the north side of the well about three by four feet, and dug down as far as I could—about nine feet; then it caved in on me and I had to stop; then I took my three-inch auger and bored down to the water; then I bored ten times down into the water and sand about two feet, and I would take my auger out and go to replace it in the hole again, and it would be closed up. I examined it for the purpose of ascertaining whether this well was bored or driven; we found it, if anything, a little softer close to the pipe than any other place, and found a little black ring, I should judge, about three inches in diameter around the outside of the pipe.

982 Q. 14. Was the earth packed tightly around the pipe as far as you examined it?

A. Yes, sir.

Q. 15. You state that the earth was a little softer close to the pipe than elsewhere; would or would not the water escaping from the vent in the pipe produce that result?

A. It could not; it was all sand.

Plaintiffs rest direct examination.

Cross-examination:

X Q. 1. What was the size of the pipe in D. B. Cox's well?

A. It was one and a fourth inches inside and one and one-half inches on the outside.

X Q. 2. If you bore into well-packed sand and keep it dry would not the hole stand more than two weeks?

A. I never tried it; my judgment is, though, that it can't stay very long.

X Q. 3. How long would it stand in clay?

A. If no water or frost would get to it, would stand for years.

X Q. 4. You dug down about nine feet at Cox's well, you say. Was not a well pit of five feet dug when the well was made; if so, did you go more than four feet below the bottom of the pit?

A. This pit was on the south side of it, right close to it, and was about five feet deep, and we dug about four feet below it, and the rest I bored.

X Q. 5. How deep did you bore at D. B. Cox's well to find water, measuring from the top of the ground?

A. Thirteen feet.

(S'g'd) PETER MILLER.

Subscribed and sworn to before me by Peter Miller this 21st day of Jan., 1880.

[SEAL.] (S'g'd) JAMES W. CONE,
Notary Public, Johnson Co., Iowa.

Being unable to complete the taking of these depositions, I do hereby adjourn the further taking of the same to 8½ o'clock a. m. of Jan. 22d, 1880.

[SEAL.] (Signed) JAMES W. CONE,
Notary Public, Johnson Co., Iowa.

983 JAN. 22d, 1880—8½ o'clock a. m.

Met pursuant to adjournment.

H. D. ROWE, of lawful age, produced, sworn, and examined, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is H. D. Rowe; age, 26 years; residence, Iowa City, Johnson Co., Iowa, and occupation, attorney-at-law.

Q. 2. Were you present, in May, 1879, at the examination of the well on the premises of D. B. Cox, in Lucas township, Johnson Co., Iowa? If you was present, state what was done and what you observed as to the condition of that well, if anything.

A. I was present. The boards from around the top of the well were removed, and a man—I think his name is Peter Miller—went down in the hole which had been dug around the pump. This hole was about three by five feet and five feet deep, as near as I can recollect. This hole was lengthened, I think, some two or three feet. The hole was then sunk, I think, to the depth of about ten feet from the surface. While the hole was being dug Mr. Parsons requested me and also Mr. Miller and Mr. Lodge, and did himself, go down into the pit and examine as to the solidity or compactness of the earth in the bottom of the pit, and especially around the tube. I probed with a stick—I think it was a round stick about an inch in diameter—and invariably the earth was more solid and compact around the tube than elsewhere in the pit. This probing process was gone through with every foot or two in going down. Now, when we had reached about the distance of ten or eleven feet from the surface of the earth it began to cave in, and Miller said it was useless to attempt to dig further; then, upon the request of Mr. Parsons, Mr. Miller sunk a hole down, just the square of the spade, right by the side of the pipe; he then bored a hole with, I think, a two-inch auger—it might have been larger—down to the depth of twelve feet from the bottom of the pit; I think so; I mean
984 from the bottom of the pit we found dug when we went there.
Mr. Miller informed Mr. Parsons that he could go no farther, as the hole filled up with sand as soon as he withdrew the auger. By Mr. Parson's request the auger was inserted a number of times, but could gain nothing; we could not sink the auger beyond a certain depth. I assisted Mr. Miller in digging and boring. I am certain as to the depth to the water from the surface of the ground; I think—I am certain—it was twelve feet to the water from the bottom of the pit which we found there.

Plaintiffs rest on direct examination.

Cross-examination:

X Q. 1. When you were digging down by the side of this pipe did you notice that there appeared a ring around the pipes in the earth about three inches in diameter, where the earth was hardest and colored a little, and inside of which ring the earth was not packed as tightly?

A. I did notice a ring of darker-colored earth or surface dirt down for, perhaps, half the way we dug; then, after that, I did not notice any difference; it was all sand; I think the earth close to the pipe was harder or more compact all the way down.

X Q. 2. Did you try it with anything but this round stick?

A. Nothing except that and the spade.

X Q. 3. Who did the most of the digging?

A. Mr. Miller did nearly all of it.

X Q. 4. Was this stick sharpened at either end?

A. No, sir; I think not.

X Q. 5. Then I understand that this stick you tried the dirt with was a round stick about an inch in diameter, with ends cut off square or nearly so?

A. It was about an inch in diameter and rounding at the ends; it was a round stick.

X Q. 6. When Miller had bored down to water with his auger could you look down the hole and see water?

A. I could see no water; I looked down the hole.

985 X Q. 7. State how you could tell that the auger reached the water.

A. By the little sand the auger brought up being damp.

X Q. 8. Was the sand coarse or fine?

A. It was coarse.

X Q. 9. How was the sand before the auger reached water—coarse or fine?

A. It was different—some coarse and some fine in different strata.

X Q. 10. Before the auger reached the water could you bring up on it all the sand through which you had bored?

A. No, sir.

X Q. 11. What proportion could you not bring up on it?

A. I can't say what proportion, but I know a little at the lower end of the auger would always drop out.

(S'g'd) H. D. ROWE.

Subscribed and sworn to by H. D. Rowe before me this 22d day of January, 1880.

[SEAL.] (S'g'd) JAMES W. CONE,
Notary Public, Johnson Co., Iowa.

986 CHARLES B. COX, of lawful age, produced, sworn, and examined, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is C. B. Cox; age is 59 years; residence, Lucas township, Johnson county, Iowa; occupation, a farmer.

Q. 2. Do you know George Hovey or Hovey Bros., of Independence?

A. I have seen Geo. Hovey two or three times; I guess that was his name; do not know Hovey Bros.; I never saw but one of the Hoveys.

Q. 3. Did George Hovey or Hovey Bros. ever make a well for you? If they did, state when and where it was located, what kind of a well was it, and how was it constructed.

A. Neither George Hovey nor Hovey Bros. were present when the well was put in; Mr. Geo. Hovey's son and a hired man put it in, as I learned from them at the time; I think it was seven years ago last summer; it was put in in my door yard in Lucas township, Johnson county, Iowa. In the first place they dug a hole about three or three and a half feet square and about 5 or 6 feet deep; then they took a two-inch auger and bored and lifted out the sand until they came to wet sand and, I suppose, water; then they put in a pipe or tube and shoved it down with their hands five or six feet below where they had bored; then they screwed on a pump on top of the pipe and drove with a sledge hammer and drove it down about four or five feet; they then pulled that pipe entirely out of the ground from the bottom; then they put in another pipe or tube with a screen four or five feet long on the lower end; they then put on the pump part of the well and it still remains where they put it.

Q. 4. Did they do any driving or forcing on the last pipe with a screen on it when they put it in?

A. They did not drive or force it any, except what they could do with their hands; I think they did not force it any with their hands; they put this pipe in and it went down of itself; its heft carried it down. This last pipe was smaller than the pipe they took out. The outside of this last pipe was not quite two inches in diameter. 987

Q. 5. Is the earth now packed tightly around this tube, and has it been since about the time of its construction?

A. I think it is tight now, the sand around the tube; I don't know as it was tight around it when made; I had no occasion to examine.

Q. 6. Has that well furnished a continuous supply of water since it was put down, and have you used it during that time?

A. Yes, sir.

Q. 7. When was Geo. Hovey at your residence last?

A. Some time during last winter.

Q. 8. Did he have any conversation with you in reference to this suit, and did he make any propositions to you in reference thereto?

A. He had a conversation with me about a suit that was pending against him for the well; he made no proposition to me.

Q. 9. Did he obtain an affidavit from you at that time?

A. He did.

Q. 10. Did he at that time state that he would hold you harmless or in any way protect you against any claim for royalty that might be demanded of you on account of said well?

A. No, sir; he said he would try and help the well owners if there was any such thing as keeping them out of paying the royalty.

Q. 11. Was this before or after you made your affidavit?

A. I think the conversation was before the affidavit was signed.

Plaintiffs rest direct examination.

Cross-examination:

X Q. 1. Did not Mr. Hovey say that he had been sued, and that he was going to try and beat them in his suit?

988 A. I think he did.

X Q. 2. Did he not say further that in case he beat them that that would let out all for whom he had put in wells?

A. I think there was a conversation to that effect. I think that was the conversation.

X Q. 3. How far is your wall from the Iowa river?

A. About eighteen rods.

X Q. 4. What is the character of the soil between your well and the river?

A. It is clay and soil for about six feet deep and sand below that.

X Q. 5. How deep is the sand below this clay and soil?

A. It is about twenty feet of sand until you come to a strata of blue clay.

X Q. 6. Is the water that supplies your well in this stratum of sand?

A. Yes, sir.

X Q. 7. Does this sand extend to and into the Iowa river at your place?

A. It extends to the river, and the bottom of the river is sand.

X Q. 8. Do you know where D. B. Cox's well is? If so, state how far that well is from the Iowa river.

A. I know where it is, and it is a little over a quarter of a mile from the bed of the river as it now is, and ten or twelve rods to the old bed of the river.

X Q. 9. What is the character of the soil from his well to the old river bed and also from there to the river as it now is?

A. It is sand—pretty much all sand from his well to the old river bed; from there to the new river bed it is mixed with loam and sand.

X Q. 10. How high is the surface of the ground at D. B. Cox's well above the water in the river ordinarily, and how high is the soil at your well above the river?

A. At D. B. Cox's I should think it was about twelve feet; at my house about fifteen feet.

989 X Q. 11. How deep did they bore at your place before they struck water, measuring from the surface of the ground?

A. About fifteen feet.

(S'g'd) CHARLES B. COX.

Subscribed and sworn to by Charles B. Cox before me this 22d day of Jan., 1880.

[SEAL.] (S'g'd) JAMES W. CONE,
Notary Public, Johnson Co., Iowa.

990 THOMAS COX, of lawful age, produced, sworn, and examined, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is Thomas Cox; age is 35 years, past; residence, Lucas township, Johnson Co., Iowa; occupation, a farmer.

Q. 2. Were you present last year when the well of D. B. Cox was examined, and did you examine to see whether or not the earth was packed tightly around the iron tube which formed the well? And, if you did, state whether it was packed tightly around the tube as far as you examined it and how far did you examine.

A. I was present when D. B. Cox's well was examined. I noticed when they were digging down that the earth was up close to the tube, tight. I did not examine it with a stick, but watched the rest of them while they were doing it. We examined about twelve or fourteen feet of the pipe from the surface of the ground.

Q. 3. Do you know the defendant, George Hovey, or Hovey Bros., of Independence?

A. I am partially acquainted with George Hovey, and one of his brothers stayed at my house one night.

Q. 4. Did George Hovey or Hovey Bros. ever put a well down for you, and where and when?

A. It was George Hovey's brother and his hired man who put the well down for me. It was either seven or eight years ago last fall, in Lucas township, Johnson Co., Iowa.

Q. 5. Was this an iron or tube well, and did you see any driving or forcing by those who put it in?

Q. 6. State what kind of a well this was and how it was made.

A. It was a galvanized iron well. They just dug a hole about three feet square and six feet deep. They then took what I should judge was a two-inch auger and bored down until they came to wet sand, and then they took a pipe and pushed that down into this hole until it went down as far as they had bored, and then they screwed a little piece of iron and wood on top and struck it a few licks with a maul; they struck it perhaps five or six
991–1002 times. They then took off this little piece and put on a pump and pumped out fine sand and water, and then they drew this whole well clear out and took another well the same as the first one, with the exception of a screen three or four feet long on lower end. Then they put this one in the hole where they had drawn the other well out of. It went down very easy until they came to water, and then they had to push it down with their hands for some four or five feet. They did not use any maul on this last tube.

Q. 7. Has this well furnished a continuous supply of water since it was put down, and have you used it since that time?

A. Yes, sir.

Q. 8. Is the earth packed tightly around this tube, and has it been tight in the ground from the time it was made?

A. I can't say, for I have never examined it.

Q. 9. Have you ever had this well up since it was put down?
A. No, sir.

Plaintiffs rest direct examination.

Cross-examination:

X Q. 1. When you examined this well of D. B. Cox's did you notice a ring of different colored earth about three inches in diameter around the pipe?
A. I did not notice it.
X Q. 2. Did you get down into the hole they dug by this well?
A. No, sir.
X Q. 3. Did you see this well of D. B. Cox's made?
A. No, sir; I did not.
(S'g'd) THOMAS COX.

Subscribed and sworn to by Thos. Cox before me this 22d day of Jan., 1880.
[SEAL.] (S'g'd) JAMES W. CONE,
Notary Public, Johnson Co., Iowa.

Here the complainants gave notice that this closed the taking of testimony at this time and place.

1003 Deposition of H. C. MOREHEAD, a witness produced and sworn as aforesaid on behalf of the complainants.

Q. 1. What is your name, age, place of residence, and occupation?
A. Name, H. C. Morehead; age, 43 years; reside in the city of Cedar Rapids, Iowa, and by occupation a tinner.
Q. 2. Was you ever engaged in the business of constructing iron tube and drive wells; and, if so, for how long a time and where?
A. I was so engaged for about 7 years, in the city of Cedar Rapids and vicinity.
Q. 3. State how extensive your experience has been in constructing driven or tube wells in Iowa.
A. Well, I made a business of it for 3 years and done nothing else; put in a number of hundreds of them, but could not give the exact amount.
Q. 4. Have you ever experimented to ascertain whether—how long a hole bored in a stratum of sand and gravel has remained a hole?
A. I have.
Q. 5. Give the result of your experiment.
A. Well, it would not remain open any length of time. In fact, you can't make a hole in water-bearing stratum or notice any I have ever put in.
Q. 6. Have you ever observed or made an experiment of boring with an auger with a sheath attached to it into a water-bearing stratum of sand or gravel and withdrawing the same to ascertain how much of a hole was left after withdrawing the same?
A. I have.

Q. 7. Give the result of your observation and experience fully, and state in that connection what you have done.

A. My experience with the auger was the same as driving a hole—would not leave any opening. I have bored down with the auger, then taken the auger out and put a stick down to see how 1004 much of an opening there was, if any, and found the sand and earth fill into the hole and filled it up to within a few inches of the surface of the water.

Q. 8. In the wells you have constructed have you ever been able to make a hole in the water-bearing formation, by either driving or boring, that would remain a hole long enough to enable you to insert a pipe in it to the depth that you had bored or driven without forcing it or driving it?

A. To the best of my knowledge and belief, I never did.

Q. 9. Have you ever withdrawn any of these tubes that you put down after you had placed them down in a hole made by a 2½ or 3 inch auger?

A. I have; a great many of them.

Q. 10. State whether you have found the earth in these holes in contact with the pipe when you have withdrawn them.

A. Well, I know the earth was in contact with it, because it drew out very hard, a great many of them.

Q. 11. State how you made your wells.

A. I made a hole in earth with a 2½ or 3 inch auger; sometimes used one and sometimes the other. I would bore down as far as I could, until the earth would cave in on me; frequently bore down to the water-bearing stratum; bored as long as I could, as long as it would stay on the auger. I would then insert my pipe and drive down until I had a sufficient water to make a well. I would insert what I would call my drive point without any strainer on it, then withdraw that, and put in my strainer—the permanent pipe.

Q. 12. State, after inserting your last point and completing the well after boring, whether the earth would be in contact with the pipe to the top of the ground generally or not.

A. It would be in contact with it within 4 feet from the surface. I generally dug that deep to put on the pump.

Q. 13. In these pipes that you drew out of the wells that 1005 you had bored, state if, on examining them by withdrawing them, how you would find the earth around the pipe.

A. Generally packed tight around the pipe; where there was an opening around the pipe was an exception, very rare.

Q. 14. State if you ever found one that you had put down that way that had an opening for any considerable distance.

A. I can't remember of any now; can remember of one that I did not put in myself that was in about a year; the water from the waste hole run down along the pipe.

Q. 15. State whether you ever found a difficulty in boring before you came to water and in loose sand and gravel so as to make a hole.

A. I have a great many times had to abandon the auger and drive.

Q. 16. State if that occurred often.

A. It occurred frequently; a great deal of the territory where we put in the wells we did not have that trouble, but in places we would.

Q. 17. What kind of an auger would you use? Describe it.

A. I had a 2½ and 3 inch wood auger with a sheath over it for holding the earth on the auger; I mean a steel auger made for boring in the wood.

Q. 18. What was the date of your first making a well by boring down to the water-bearing formation and then inserting a drive point and driving it some distance into the water-bearing stratum and attaching a sand pump and pumping out the fine sand and then withdrawing the same and inserting in lieu thereof a pipe with a point with perforations and screens covering the same and using this last pipe as the well pit proper and pumping water therefrom.

A. I can't give the date, but I think it was in 1870.

Q. 19. Was you ever able in constructing these wells to get your permanent pipe with gauze covered point attached to the proper depth without forcing or driving it?

1006 A. I never have; had to use some force.

Q. 20. Does the degree of force necessary to be used differ in different localities or in different formations?

A. It does; sometimes I could churn it down with my hands and sometimes I would have to use my sledge after using sand point.

Q. 21. Did you make an experiment about the 19th of May, 1879, here in this city in driving a well or wells? And, if so, go on and state fully and particularly what you have done and the result of your experiment.

A. I made an experiment then; I had drawn my auger and inserted my drive point and drove into the water-bearing stratum, put my sand pump on, and pumped until the water became nearly clear. I measured the depth to know how deep it was, withdrew it, then inserted the stick in the hole to see how far I could insert in the earth; the stick was ½ inch by 1 inch. I could not get it down within a foot or so to where the pipe went without meeting with resistance; measured it at the time, but have forgotten the distance. We made another hole; went through the same performance, and experiment amounted to about the same thing; couldn't get the stick down into the water-bearing stratum without meeting resistance.

Q. 22. In the last two wells you say you constructed how did the water come from the pump?

A. The water was riley at first; then pumped until it came near clear, and plenty of it.

Cross-examination by the defendant:

X Q. 1. In trying these holes you made to see how far you could put a stick down was the end of the stick square or sharpened?

A. It was square, ½ inch by inch.

X Q. 2. Was that the kind of stick used in all the tests you made?

A. Yes, sir.

X Q. 3. Did you have any difficulty in getting the stick down to the water-bearing stratum?

1007 A. No, sir.

X Q. 4. When did you so commence to put in these tube wells?

A. I think in the year 1870.

X Q. 5. How long were you at work at that business from that time?

A. Up to the year 1878.

X Q. 6. About how many did you put in before 1875?

A. Really I have no means of knowing; I guess it was from 300 to 500.

X Q. 7. When you bored down did you first dig your hole about 4 feet deep?

A. I did not.

X Q. 8. Did you complete your well and put in the permanent pipe before digging that hole?

A. I did.

X Q. 9. When you commenced digging the hole was there not a space around the pipe between that and the earth?

A. Yes, sir; there was.

X Q. 10. About how much space?

A. From ½ inch to inch; usually about ½ inch.

X Q. 11. If you had not dug any how long would that have remained open?

A. I have no means of telling that.

X Q. 12. How long had these wells been down that you say you put down and have taken up since?

A. Down 2, 3, 4, and 5 years.

X Q. 13. In this experiment you made in May, 1879, how far was it from the surface of the ground to the water-bearing stratum?

A. I think the first one about 5 feet and the other about 12 feet.

X Q. 14. Have you ever made wells where after using the drive point and pumping out the fine sand you could put in the permanent pipe and force it down with your hands?

A. I have.

1008 Re-examined by the complainant:

R. D. Q. 1. How far would you drive or force down your drive point after boring to water, generally?

A. From 3 to 5 feet to get a good supply of water.

(Signed) H. C. MOREHEAD.

Subscribed and sworn to before me on the 22d day of January, 1880.

(S'g'd) J. N. WHITTAM,
U. S. Commissioner

1009 J. M. May, being produced, sworn, and examined on the part of complainants, deposed as follows:

Q. 1. State your name, age, place of residence, and occupation.

A. Name, J. M. May; age, 60 years; place of residence in Rapids township, Linn Co., Iowa; am by occupation a real estate dealer and lawyer.

Q. 2. In the month of May, 1879, did you take part in or witness an experiment made by H. C. Morehead on your island near the city of Cedar Rapids, Iowa? And, if so, go on and state fully what you done and what you saw done and the result of such experiment.

A. I witnessed the experiment referred to at the time by Mr. Morehead. The first experiment was made by driving an inch-and-one-quarter iron pipe, having small perforations near its lower end and no screen over it, but with a point, into the ground about 8 feet. On the top of the pipe was screwed what is commonly known as a pitcher pump. After pumping rapidly for some minutes the riled or muddy water was apparently exhausted, and that water was pumped at the rate of about 3 or four buckets per minute, as near as I can remember. The other experiment was in the ground about eight rods from the first on higher ground and near a dug or curbed well; the pipe was driven about 15 feet in the ground, having about 8 feet of the pipe that was first driven. After pumping the muddy water from the tube the water flowed clear at about the same rate as at the first experiment.

Cross-examined by defendant:

X Q. 1. Did Mr. Morehead drive these pipes down from the surface of the ground?

A. The first experiment I only witnessed the work being done some minutes, perhaps 10 or 15, after it was commenced, so I do not know whether the first beginning was by driving or excavating. As to the second experiment I do not recollect, but have an impression that I saw him using a crowbar or iron rod
1010 in commencing to perforate the earth a part of the distance towards the water-bearing stratum.

X Q. 2. Did not Mr. Morehead use an augur and bore down a part of the way?

A. Really, I cannot tell whether he did or not; have no distinct recollection; perhaps it might have been an augur instead of crowbar.

(S'g'd) J. M. MAY.

Subscribed and sworn to before me on 22d day of January, A. D. 1880.

(S'g'd) J. N. WHITTAM,
U. S. Commissioner.

1011 The complainants here offer in evidence certified copy of reissued letters patent No. 4372, granted to Nelson W. Green, dated May 9th, A. D. 1871, marked Exhibit "A."

The complainant further offers in evidence a certified copy of power of attorney and assignment signed by N. W. Green, of date 3d day of July, A. D. 1871, and marked Exhibit "B."

The complainants further offer in evidence certified copy of assignment from Nelson W. Green and others to Noah J. Parsons, dated the 15th day of October, A. D. 1878, and marked Exhibit "C."

The complainants further offer in evidence certified copy of final decree in case of W. D. Andrews *et al.* against Theodore A. Carman, of the circuit court of the United States for the eastern district of New York, marked Exhibit "D."

The complainants here offer in evidence certified copy of injunction issues in case of W. D. Andrews *et al. vs.* Theodore A. Carman, marked Exhibit "E."

The complainants here further offer in evidence a certified copy of a decree in case of W. D. Andrews *et al. vs.* Theodore A. Carman, marked Exhibit "F."

1012–1016 The complainants also offer a certified copy of a decree case of W. D. Andrews *et al. vs.* George B. Wright, in circuit court of the United States for the district of Minnesota, and marked Exhibit "G."

Complainants also offer in evidence a certified copy of entry of final decree in case of W. D. Andrews *et al. vs.* George B. Wright, marked Exhibit "H."

Complainants also offer in evidence a certified copy of a perpetual injunction issued in the case of W. D. Andrews *et. al. vs.* George B. Wright, marked Exhibit "I."

Complainants also offer in evidence a certified copy of final decree in case of Henry B. Hine and Amos T. Stephenson *vs.* Joseph Wahl, of the circuit court of the United States for the district of Indiana, marked Exhibit "J."

Complainants also offer in evidence a certified copy of opinion of the court and order in the case of Benjamin F. Green *vs.* Phineas M. French, of the United States circuit court for the district of New Jersey, and marked Exhibit "K."

1017 DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office of the reissue letters patent granted Nelson W. Green May 9th, 1871, No. 4372, for improvement in the methods of constructing artesian wells.

In testimony whereof I, H. E. Paine, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this fifteenth day of December, in the year of our Lord one thousand eight hundred and seventy-nine, and of the Independence of
1018 the United States the one hundred and fourth.

[SEAL.] (S'g'd) H. E. PAINE,
Commissioner.

1019 The United States of America to all to whom these letters patent shall come:

Whereas Nelson W. Green, of Amherst, Massachusetts, has alleged that he has invented a new and useful improvement in the methods of constructing artesian wells (for which letters patent were issued to him dated January 14, 1868, which letters having been surrendered, the same have been canceled and new letters ordered to issue to him on an amended specification) and has made oath that he is a citizen of the United States; that he verily believes he is the original and first inventor or discoverer of the said improvement,
1020 and that the same hath not, to his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patents, praying that a patent may be issued therefor:

These are therefore to grant to the said Nelson W. Green, his executor, administrators, or assigns, for the term of seventeen years from the fourteenth day of January, one thousand eight hundred and sixty-eight, the full and exclusive right and liberty of making, using, and vending to others to be used, the said improvement, a description whereof is given in the annexed schedule, and made a part of these presents.

1021 In testimony whereof I have caused these letters to be made patent and the seal of the Patent Office to be hereunto affixed.

Given under my hand, at the city of Washington, this ninth day of May, in the year of our Lord one thousand eight hundred and seventy-one, and of the Independence of the United States of America the ninety-fifth.

[SEAL.] (S'g'd) C. DELANO,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.
(S'g'd) M. D. LEGGETT,
Commissioner of Patents.

(Here follows diagram marked page 1022.)

1023 4372.

UNITED STATES PATENT OFFICE.

NELSON W. GREEN, of Amherst, Massachusetts.

Improvement in the Methods of Constructing Artesian Wells.

Specification forming part of Letters Patent No. 73425, dated January 14, 1868; reissue No. 4372, dated May 9, 1871.

To all whom it may concern:

Be it known that I, Nelson W. Green, of Amherst, in the county of Hampshire and State of Massachusetts, have invented a new and improved method of constructing artesian wells; and I do hereby

Re-issue

1022

N. W. Green's
Impd. Method of Constructing Artesian Wells.

4372

REISSUED MAY 9 1871

Fig. 1.

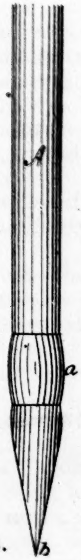
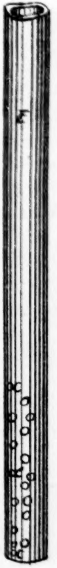


Fig. 2.



No. 16.
Andrews et al.
v.
Hovey
} p. 1022.

N W Green

Witnesses
Fred Haynes
Blando Berney

declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification.

1024 My invention is particularly intended for the construction of artesian wells in places where no rock is to be penetrated.

The methods of constructing wells previous to this invention were what have been known as "sinking" and "boring," in both of which the hole or opening constituting the well was produced by taking away a portion of the earth or rock through which it was made.

This invention consists in producing the well by driving or forcing down an instrument into the ground until it reaches the water, the hole or opening being thus made by a mere displacement of the
earth, which is packed around the instrument and not re-
1025 moved upward from the hole as it is in boring.

The instrument to be employed in producing such a well to distinguish it from "sunk" or "bored" wells, may be termed which "driven well," may be any that is capable of sustaining the blows or a pressure necessary to drive it into the earth; but I prefer to employ a pointed rod, which, after having been driven or forced down until it reaches the water, I withdraw and replace by a tube made airtight throughout its length, except at or near its lower end, where I
make openings or perforations for the admission of water and
1026 through and from which the water may be drawn by any
well-known or suitable form of pump.

In certain soils the use of a rod preparatory to the insertion of a tube is unnecessary, as the tube itself, through which the water is to be drawn, may be the instrument which produces the well by the act of driving it into the ground to the requisite depth.

To enable others to make and use my invention I will proceed to describe it with reference to the drawing, in which—

Figure 1 represents a portion of the pointed rod above mentioned and Fig. 2 a portion of the tube which forms the casing or lining of the well.

1027 The driving-rod A I construct of wood or iron or other metal or of parts of each, with a sharp point, *b*, of steel or otherwise, to penetrate the earth, and a slight swell, *a*, a short distance above the point, to make the hole slightly larger than the general diameter of the rod.

This rod I drive, by a falling weight or other power, into the earth until its point passes sufficiently far into the water to procure the desired supply.

I then withdraw the rod and insert in its place the air-tight iron or wooden tube B, which may be slightly contracted at its lower end to insure its easy passage to its place.

In general this tube B I make of iron and of a thickness
1028 that will bear a force applied at its upper extremity sufficient
to drive or force it to its place, and where a large or continuous flow of water is desired I perforate this tube near its lower end to admit the water more freely to the inside.

The perforations *c* may be about one-half of an inch in diameter, less or more, and from one to one and a half inches apart, and the perforations may extend from the bottom of the tube upward from one to two feet.

The diameter of the tube should be somewhat smaller than the diameter of the swell *a* on the drill end of the driving-rod A.

1029 In localities where the water is near the surface of the ground and the well is for temporary use only, as in the case of a moving army or for temporary camps, lighter and thinner materials than iron may be used for making the tubes, as, for instance, zinc, tin, copper, or sheet metal of other kind, or even wood may be used.

The road may be of any suitable and practical size that can be readily driven or forced into the ground, and may be from one to three inches in diameter.

1030 In some cases the water will flow out from the top of the tube without the aid of a pump; in other cases the aid of a pump to draw the water from the well may be necessary. In the latter cases I attach to the tube, by an air-tight connection, any known form of pump.

What I claim as my invention, and desire to secure by letters patent, is—

The process of constructing wells by driving or forcing an instrument into the ground until it is projected into the water without removing the earth upward as it is in boring, substantially as herein described.

N. W. GREEN.

Witnesess:
SYDNEY E. SMITH.
W. MORRIS SMITH.

1031 DISTRICT OF IOWA, *ss:*

In the Circuit Court of the United States. In Equity.

WILLIAM D. ANDREWS *et al.*, Complainants,
vs.
GEORGE HOVEY, Defendant.

This is marked Exhibit "A" by me and made a part of the evidence of the complainants in the above-entitled cause as taken before me on the 22nd day of January, A. D. 1880, at the time of the taking of the depositions of H. C. Morehead and J. M. May, as hereto annexed, on behalf of the complainants.

Witness my hand this 22d day of January, A. D. 1880.

(S'g'd) J. N. WHITTAM,
U. S. Commissioner for the District of Iowa.

1032 EXHIBIT "B."

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office.

In testimony whereof I, Ellis Spear, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this eighteenth day of July, in the year of our Lord one thousand eight hundred and seventy-seven, and of the Independence of the United States the one hundred and second.

[SEAL.] (S'g'd) ELLIS SPEAR,
Commissioner.

1033 DISTRICT OF IOWA, *ss:*

In the Circuit Court of the United States. In Equity.

WILLIAM D. ANDREWS *et al.*, Complainants,
vs.
GEORGE HOVEY, Defendant.

This is marked Exhibit "B" by me and made a part of the evidence of the complainants in the above-entitled cause as taken before me on the 22nd day of January, A. D. 1880, at the time of the taking of the depositions of H. C. Morehead and J. M. May, hereby annexed, on behalf of the complainants.

Witness my hand this 22d day of January, A. D. 1880.

(S'g'd) I. N. WHITTAM,
U. S. Commissioner for the District of Iowa.

1034 EXHIBIT "C."

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office of an assignment from Nelson W. Green, Wm. D. Andrews and Bro. to Noah J. Parsons, recorded in Liber J 23, p. 473, and that said annexed copy has been compared by me with the original, and that it is a correct transcript therefrom and of the whole of the original.

1035 In testimony whereof I, W. H. Doolittle, acting Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this thirteenth day of December, in the year of our Lord one thousand eight hundred and seventy-nine, and of the Independence of the United States the one hundred and fourth.

[SEAL.] (S'g'd) W. H. DOOLITTLE,
Acting Commissioner.

1036

Assignment of Patent.

Liber J 23, p. 473.

Whereas Nelson W. Green, then of the town of Cortland, county of Cortland and State of New York, did obtain letters patent of the United States of America for certain improvements in constructing wells, which letters patent bear date the fourteenth day of January, eighteen hundred and sixty-eight, and numbered 73425; and

Whereas the said letters patent were reissued, bearing day May 9th, 1871, and numbered 4372; and whereas the said Nelson W. Green did, by deed of assignment, dated July 3rd, 1871, convey
to William D. Andrews & Brother, doing business in the city
1037 of New York, the undivided one-half of all his right, title,
and interest — and to said invention and letters patent; and

Whereas Noah J. Parsons, of Cedar Rapids, Linn county, Iowa, is desirous of acquiring an interest therein:

Now, this indenture witnesseth: That for and in consideration of the sum of five dollars to us, the said Wm. D. Andrews & Bro. & N. W. Green, in hand paid, the receipt of which is hereby acknowledged, we have assigned, sold, and set over, and do hereby assign, sell, and set over, unto the said Noah J. Parsons the undivided one-twentieth part of all the right, title, and interest which we have
in the said invention as secured to us under and by said
1038 letters patent and deed of assignment in the State of Iowa,
excepting in the counties of Polk, Dallas, Iowa, Tama, Woodbury, Menona, Des Moines, and Cedar, and reserving to ourselves the exclusive right to dispose of the said invention and patent unto the United States for military, naval, and cemetery purposes, the same to be held and enjoyed by the said Noah J. Parsons, together with the undivided one-twentieth part of all royalties and damages which have previously accrued in said territory and remains unpaid, for his own use and behoof and for the use and benefit of his legal representatives to the full end of the term
1039 for which said letters patent are granted, as fully and entirely
as the same would have been held and enjoyed by us if this assignment and sale had not been made.

In testimony whereof we hereunto set our hands and affix our seals this fifteenth day of October, eighteen hundred and seventy-eight.

For themselves and attorneys-in-fact for—

[American Driven Well. W. D. A. & Bro.]

NELSON W. GREEN. [SEAL.]
WM. D. ANDREWS & BRO.

Sealed and delivered in presence of—
M. A. ANDREWS.
HENRY T. CHAPMAN, JR.

1040 STATE OF NEW YORK,
City of New York, County of New York:

On the 18th day of October, in the year one thousand eight hundred and seventy-eight, before me personally came William D. Andrews, of the firm of William D. Andrews & Bro., known to me to be the individual described in and — executed the foregoing instrument, and acknowledged that he executed the same for the firm of Wm. D. Andrews & Bro., for themselves and as attorneys for Nelson W. Green.

[Seal Samuel Kilpatrick, County of New York.]

SAMUEL KILPATRICK,
Notary Public (86), *County of New York.*

Recorded Oct. 21st, 1878.
Ex.: J. A. W., M. McK.

1041 EXHIBIT "C."

DISTRICT OF IOWA, *ss:*

In the Circuit Court of the United States. In Equity.

WILLIAM D. ANDREWS *et al.*, Complainants,
vs.
GEORGE HOVEY, Defendant.

This is marked Exhibit "C" by me and made a part of the evidence of the complainants in the above-entitled cause as taken before me on the 22d day of January, A. D. 1880, at the time of the taking of the depositions of H. C. Morehead and J. M. May, as hereto annexed, on behalf of the complainants.

Witness my hand this 22d day of January, A. D. 1880.

(S'g'd) I. N. WHITTAM,
U. S. Commissioner for the District of Iowa.

1042 At a stated term of the circuit court of the United States for the eastern district of New York, held at the court-rooms, Brooklyn, on second day of March, 1877.

Present: The Honorable Charles L. Benedict, judge.

EXHIBIT "D."

In the Circuit Court of the United States, Eastern District of New York. In Equity.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, NELSON W. GREEN, ORLANDO BENNETT, and PLATT CONKLIN
vs.
THEODORE A. CARMAN.

This cause having been brought for a hearing upon the report of B. Lincoln Benedict, Esq., a special master of this court, to 1043 whom it was referred to ascertain, take, state, and report to the court an account of the gains, profits, and advantages which the defendant has received or which have arisen or accrued to him since the 9th day of May, 1871, from infringing the rights of the said complainants as the assignees of reissued letters patent No. 4372, dated May 9th, 1871, granted to Nelson W. Green for improvements in wells, by the manufacture, use, or sale of the improvements patented therein, and also such gains and profits as said complainants would have received but for said wrongful acts and doings of said defendant, and also what damages in addition thereto the complainants have sustained by reason of said infringements, 1044 which report, bearing date the 1st day of March, 1877, finds that damages have been proven to have been sustained by complainants and gains and profits to have accrued to the defendant to the aggregate sum of sixteen hundred and fifty dollars from the manufacture, use, or sale of the improvements patented in the reissued letters patent No. 4372, in violation of the exclusive rights secured to the complainants by the said reissued letters patent:

Now, on motion of Joseph C. Clayton, Esq., complainants' solicitor, it is ordered, adjudged, and decreed that the said master's report be, and the same hereby is, in all respects confirmed, and that the complainants recover of the defendant the sum of sixteen 1045 hundred and fifty dollars, the amount so reported due as aforesaid, together with the costs of this suit, taxed at three thousand and seventy dollars, making in the aggregate the total amount of four thousand seven hundred and twenty dollars, and that the complainants have execution therefor.

CHAS. L. BENEDICT.

Form approved:

THEODORE A. CARMAN,

S. L. WARNER,
Of Counsel.

EASTERN DISTRICT OF NEW YORK, *ss:*

I, B. Lincoln Benedict, clerk of the circuit court of the United States for the eastern district of New York, do hereby certify that the foregoing is a true copy of an original decree on file and remaining of record in my office.

1046 In testimony whereof I have caused the seal of the said court to be hereunto affixed, at the city of Brooklyn, in the eastern district of New York, this 20th day of January, in the year of our Lord one thousand eight hundred and eighty, and of the Independence of the United States the one hundred and fourth.

[SEAL.] (S'g'd) B. LINCOLN BENEDICT.

UNITED STATES OF AMERICA,
Eastern District of New York, } *ss:*

I, Charles L. Benedict, judge of the district court of the United States of America for the eastern district of New York, do hereby certify that I am well acquainted with the handwriting of B. Lincoln Benedict, whose name is subscribed to the annexed cer- 1047 tificate, and that the signature to the same is in his proper handwriting; and I do further certify that he was at the time of signing the same clerk of the circuit court of the United States of America for the eastern district of New York.

In testimony whereof I have hereunto subscribed my name and affixed my seal of the said district court this 21st day of January, in the year of our Lord one thousand eight hundred and eighty, and of the Independence of these United States the 104th.

[SEAL.] (S'g'd) CHAS. L. BENEDICT.

DISTRICT OF IOWA, *ss:*

In the Circuit Court of the United States. In Equity.

WILLIAM D. ANDREWS *et al.*, Complainants,
vs.
GEORGE HOVEY, Defendant.

1048 This is marked Exhibit "D" by me and made a part of the evidence of the complainant in the above-entitled cause, as taken before me on the 22nd day of January, A. D. 1880, at the time of taking of the depositions of H. C. Morehead and J. M. May, as hereto annexed, on behalf of the complainants.

Witness my hand January 22d, A. D. 1880.

I. N. WHITTAM,
U. S. Commissioner for the District of Iowa.

(End.:) Exhibit "D." U. S. circuit court, eastern district of New York. Wm. D. Andrews *et a-. vs.* Theodore A. Carman. Final decree. March 2d, 1877. J. C. Clayton, compl'ts' solicitor, 7 Warren St., New York.

1049 In the Circuit Court of the United States for the Eastern District of New York.

The President of the United States of America to Theodore A. Carman, his clerks, attorneys, servants, agents, and workmen, Greeting:

Whereas it has been represented to us in our circuit court of the United States for the second circuit and the eastern district of New York that reissued letters patent of the United States were issued and granted, in due form of law, on the ninth day of May, in the year of our Lord one thousand eight hundred and seventy-one, to Nelson W. Green for improvements in wells, said letters patent being known and distinguished as "reissue No. 4372;"

And that you, Theodore A. Carman aforesaid, have infringed
1050 the rights secured by the aforesaid letters patent by constructing and using wells, contrary to the form of the statute in such case made and provided:

Now, therefore, we do strictly command and perpetually enjoin you, the said Theodore A. Carman, your clerks, attorneys, agents, servants, and workmen, under the pains and penalties which may fall on you and each of you, that you forthwith desist and refrain from constructing or using wells such as are described in the said reissued letters patent numbered 4372.

Witness the Honorable Morrison R. Waite, Chief Justice of the United States of America, at the city of Brooklyn, this 3rd day of

May, in the year of our Lord one thousand eight hundred and seventy-six.

[SEAL.] (S'g'd) B. LINCOLN BENEDICT, *Clerk.*

1051 UNITED STATES OF AMERICA, *Eastern District of New York*, } *ss:*

I, B. Lincoln Benedict, clerk of the circuit court of the United States of America for the eastern district of New York, do hereby certify that the above is a true copy of the original on file and remaining of record in my office.

In testimony whereof I have caused the seal of the said court to be hereunto affixed, at the city of Brooklyn, in the eastern district of New York, this 6th day of January, in the year of our Lord one thousand eight hundred and eighty, and of the Independence of the said United States the 104th.

[SEAL.] (Signed) B. LINCOLN BENEDICT, *Clerk.*

1052 DISTRICT OF IOWA, *ss:*

In the Circuit Court of the United States. In Equity.

WILLIAM D. ANDREWS *et al.*, Complainants,
vs.
GEORGE HOVEY, Defendant.

This is marked Exhibit "E" by me and made a part of the evidence of the complainants in above-entitled cause, as taken before me on the 22d day of January, A. D. 1880, at the time of the taking the depositions of H. C. Morehead and J. M. May, as hereto annexed, on behalf of the complainants.

Witness my hand January 22d, A. D. 1880.

I. N. WHITTAM,
U. S. Commissioner for the District of Iowa.

1053 At a stated term of the circuit court of the United States of America, in the eastern district of New York, in the second circuit, held at the court-rooms, in the city of Brooklyn, on the second day of May, in the year of our Lord one thousand eight hundred and seventy-six.

Present: Hon. Charles L. Benedict, district judge.

EXHIBIT "F."

Circuit Court of the United States for the Eastern District of New York. In Equity.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, NELSON W. GREEN, ORLANDO BENNET, and PLATT CONKLIN,
vs.
THEODORE A. CARMAN.

1054 This cause having come on to be heard upon the bill of complaint herein, the answer thereto of the defendant, the replication of the complainants to such answer, and the proof, oral, documentary, and written, taken and filed in said cause, and having been argued at length by counsel for the respective parties:

Now, therefore, on consideration thereof, it is ordered, adjudged, and decreed, and the court doth hereby order, adjudge, and decree, as follows, to wit: That the reissued letters patent No. 4372, granted to Nelson W. Green on the 9th day of May, 1871, for improvements in wells, being the letters patent referred to in the bill of complaint herein, are good and valid in law; that the said Nelson W. Green was and is the first and original inventor and discoverer of 1055 the "improvement in wells" described and claimed in the said letters patent and the specification annexed thereto; that the said William D. Andrews, George H. Andrews, Nelson W. Green, Orlando Bennet, and Platt Conklin are the exclusive owners of the said letters patent for the county of Queens, in the State of New York, within this district; that the said Theodore A. Carman, the defendant herein, has infringed upon the said letters patent, and upon the exclusive right of the complainants under the same, by the construction and use of wells, as charged in said bill of complaint.

And it is further ordered, adjudged, and decreed that the complainants do recover of the defendant the profits, gain, and advantages which the defendant has received or made, or which 1056 have in any way arisen or accrued to him from the infringement of the said reissued letters patent by practising, making, using, or selling the invention and thing patented as described and secured by the said reissued letters patent No. 4372, since the grant and issue thereof on the 9th day of May, 1871; and also the damages which the complainants have or may have sustained by reason of any infringement of said reissued letters patent.

And it is further ordered, adjudged, and decreed that it be referred to B. Lincoln Benedict, Esq., special master, appointed by this court to ascertain and take and state and report to the court an account of the gains and profits and advantages which the said defendant has received or which has accrued to or arisen to him since the 1057 9th day of May, 1871, from infringing the aforesaid exclusive rights of the said complainants by the construction and use of wells such as are described in the aforesaid reissued letters patent numbered 4372, and also to compute, assess, ascertain, state, and report the amount of damages which the complainants have sustained by reason of the said infringements.

And it is further ordered, adjudged, and decreed that the complainants have on such accounting the right to cause an examination of the said defendant, *ore tenus* or otherwise, and also the production of the books, vouchers, and documents of said defendant, and that said defendant attend for such purposes before said special master from time to time, within this district, as said master shall direct.

1058 And it is also further ordered, adjudged, and decreed that a perpetual injunction be issued in this cause against the said defendant, Theodore A. Carman, restraining him, his agents, attorneys, clerks, servants, workmen, and all working or holding under or through him, from constructing or using wells such as are described in the aforesaid reissued letters patent numbered 4372, pursuant to the prayer of said bill of complaint.

And it is further ordered, adjudged, and decreed that the complainants do recover of the defendant their costs and charges and disbursements of this suit, to be taxed.

CHAS. L. BENEDICT.

I certify the foregoing to be a true copy of the original decree entered in the above-entitled action.

[SEAL.] (S'g'd) B. LINCOLN BENEDICT, *Clerk.*

1059 DISTRICT OF IOWA, *ss:*

In the Circuit Court of the United States. In Equity.

WILLIAM D. ANDREWS *et al.*, Complainants,
vs.
GEORGE HOVEY, Defendants.

This is marked Exhibit "F" by me and made a part of the evidence of the complainants in the above-entitled cause as taken before me on the 22nd day of January, 1880, at the time of the taking of the depositions of H. C. Morehead and J. M. May, as hereto annexed, on behalf of the complainants.

Witness my hand January 22d, A. D. 1880.

(S'g'd) I. N. WHITTAM,
U. S. Commissioner for the District of Iowa.

1060 EXHIBIT "G."

In the Circuit Court of the United States for the District of Minnesota. In Equity.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, and NELSON W. GREEN
against
GEORGE B. WRIGHT.

This cause came on to be heard at the December term of said court, A. D. 1877, upon pleadings and proofs, and was argued by the counsel for the respective parties, and the court having considered said pleadings, proofs, and arguments, upon due advisement it is now hereby ordered, adjudged, and decreed in this cause as follows:

1061 That the reissued letters patent No. 4372 of the United States granted to said Nelson W. Green on the ninth day of May, 1871, for improvements in wells, being the letters patent referred to in the bill of complaint herein, are good and valid in law.

That the said Nelson W. Green was and is the first inventor and discoverer of the invention of the "improvement in wells" described and claimed in the said letters patents and the specifications annexed thereto.

That the complainants, said William D. Andrews, George H. Andrews, and Nelson W. Green, are the exclusive owners of the said letters patent for the county of Hennepin, in the State of Minnesota, within this district, and of all rights of action for infringement thereof.

That the said defendant herein, George B. Wright, has infringed upon said letters patent and upon the exclusive right of the 1062 complainants under the same by the construction or use of wells, as charged in said bill of complaint.

And it is further ordered, adjudged, and decreed that the complainants do recover of said defendant the profits, gains, and advantages which the said defendant has received or made or which have in any way arisen or accrued to him from the infringement of the said reissued letters patent by practicing, making, using, or selling the invention and thing patented or described and secured by the said reissued letters patent No. 4372 since the grant and issue thereof on the 9th day of May, 1871, and also the damages which the complainants have or may have sustained by reason of any infringements of said letters patent by said defendant.

1063 And it is further ordered, adjudged, and decreed that it be referred to Horatio E. Mann, Esq., a master of this court, to ascertain and take and state and report to this court an account of the gains and profits and advantages which the said defendant has received or which has accrued to or arisen to him since the 9th day of May, 1871, from infringing the aforesaid exclusive rights of the said complainants by the construction of, dealing in, using, or selling the said wells, such as are described in the aforesaid reissued letters patent numbered 4372, and also to compute, assess, ascertain, state, and report the amount of damages which the complainants have sustained by reason of said infringement.

And it is further ordered, adjudged, and decreed that the 1064 complainants have on such accounting the right to cause an examination of said defendant and also the production of the books, vouchers, and documents of said defendant, and that said defendant attend for such purposes before said master from time to time within this district as said master shall direct.

And it is also further ordered, adjudged, and decreed that a perpetual injunction be issued in this cause against the said defendant, George B. Wright, restraining him and his agents, attorneys, clerks, servants, workmen, and all working or holding under or through him, from constructing, selling, putting down, or using wells such as are described in the aforesaid reissued letters patent number 1065 4372, pursuant to the prayer of said bill of complaint.

And it is further ordered, adjudged, and decreed that complainants do recover of the defendant their costs and disbursements of this suit, to be taxed.

R. R. NELSON, *Judge.*

STATE OF MINNESOTA, } *ss:*
County of Ramsey, }

I, Horatio E. Mann, the clerk of the within-named circuit court of the United States for the district of Minnesota, as such clerk, do hereby certify that I have carefully compared the foregoing paper with the original decree on file and entered in the within-entitled cause, and of which, as such clerk, I am the custodian, and that the same is a true copy and transcript of said original decree and of the whole thereof.

1066 Witness my hand and the seal of this said court this ninth day of January, A. D. 1880.

[SEAL.] (S'g'd) H. E. MANN, *Clerk.*

DISTRICT OF IOWA, *ss:*

In the Circuit Court of the United States. In Equity.

WILLIAM D. ANDREWS *et al.*, Complainants,
vs.
GEORGE HOVEY, Defendant.

This is marked Exhibit "G" by me and made part of the evidence of the complainants in the above-entitled cause as taken before — on the 22d day of January, A. D. 1880, at the time of taking of the depositions of H. C. Morehead and J. M. May, as hereto annexed, on behalf of the complainants.

Witness my hand January 22d, 1880.

I. N. WHITTAM,
U. S. Commissioner for the District of Iowa.

1067 EXHIBIT "H."

In the Circuit Court of the United States for the District of Minnesota.

Term Minutes. June Term, A. D. 1878.

SEPTEMBER 3d, 1878.

Present: Hon. Renssalaer R. Nelson, judge.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, and NELSON W. GREEN
vs.
GEORGE B. WRIGHT.

This cause having been referred to H. E. Mann, Esq., a master in chancery of this court, to ascertain, take, and state to the court an account of the gains and profits and advantages which the said defendant has received or which has accrued or arisen to him 1068 by reason of his infringement of the plaintiffs' exclusive rights by the construction, using, and selling of drive wells as described in reissued letters patent No. 4372, and the damages the plaintiffs have sustained thereby, and the said master having filed his report, wherein he finds such gains, profits, advantages, and damages to be the sum of fifteen dollars, and the defendant, by his solicitors, having waived in open court all exceptions to said report, it is ordered that said report be, and the same is hereby, in all respects confirmed.

1069 And the plaintiffs' costs having been taxed by the clerk of this court at the sum of six hundred and twenty-two dollars and forty cents ($622.40), from which taxation both parties have appealed to the court, now, upon due consideration thereof, after hearing the arguments of counsel, it is further ordered that said taxation do stand confirmed.

Whereupon, upon motion of plaintiffs' solicitors, it is further ordered and adjudged that the plaintiffs do have and recover of and from the defendant the said sum of fifteen dollars so reported as aforesaid, besides the further sum of six hundred and twenty-two dollars, their costs aforesaid, and that the plaintiffs have execution therefor.

1070 UNITED STATES OF AMERICA, } ss:
District of Minnesota, }

I, H. E. Mann, clerk of the circuit court of the United States of America for the district of Minnesota, do hereby certify that I have carefully compared the foregoing copy with the original thereof which is in my custody as such clerk, and that such copy is a correct transcript from such original.

In testimony whereof I have hereunto set my hand and affixed the seal of said court, at St. Paul, in said district, this ninth day of January, A. D. 1880.

[SEAL.] (S'g'd) H. E. MANN, *Clerk.*

1071 DISTRICT OF IOWA, *ss:*

In the Circuit Court of the United States. In Equity.

WILLIAM D. ANDREWS *et al.*, Complainants,
vs.
GEORGE HOVEY, Defendant.

This is marked Exhibit "H" by me and made a part of the evidence of the complainants in the above-entitled cause as taken before me on the 22d day of January, A. D. 1880, at the time of taking of the depositions of H. C. Moreland and J. M. May, as hereto annexed, on behalf of the complainants.

Witness my hand January 22d, A. D. 1880.

I. N. WHITTAM,
U. S. Commissioner for the District of Iowa.

1072 EXHIBIT "I."

In the Circuit Court of the United States, District of Minnesota.

The United States of America to George B. Wright, his agents, attorneys, clerks, servants, workingmen, and all working or holding under or through him, Greeting:

Whereas William D. Andrews, George H. Andrews, and Nelson W. Green have exhibited their bill of complaint before the judges of our circuit court of the United States for the circuit within and for the district of Minnesota against you, the said George B. Wright, praying to be relieved touching the infringement by you of their rights under reissued letters patent of the United States granted and issued in due form of law on the 9th day of May, 1871,
1073 to said Nelson W. Green for "improvements in wells," said reissued letters patent being known and distinguished as "reissue number 4372," and which were duly assigned to and are now owned by said William D. Andrews, George H. Andrews, and Nelson W. Green; and whereas by the decree of said court, entered on the tenth day of July, A. D. 1878, it is ordered, adjudged, and decreed that a writ of injunction issue, under the seal of said court, to restrain you and each and every of you from constructing, making, manufacturing, selling, putting down, or using any well or wells such as are described in said reissued letters patent No. 4372:

1074 We, therefore, in consideration thereof, do hereby strictly command and perpetually enjoin you, the said George B. Wright, your agents, attorneys, clerks, servants, workingmen, and all holding under or through you, under the pains and penalties which may fall upon you and each of you in case of disobedience, that you forthwith cease, desist, and refrain from constructing, making, manufacturing, selling, putting down or using, either by or for yourself or as the servant or workingman of another, in violation of said reissued letters patent, any well or wells such as are described in said reissued letters patent No. 4372.

Whereof you are not to fail at your peril.

1075 Witness the Honorable Morrison R. Waite, Chief Justice of the Supreme Court of the United States, at St. Paul, this twenty-second day of July, in the year of our Lord one thousand eight hundred and seventy-eight.

[SEAL OF COURT.] H. E. MANN, *Clerk.*

UNITED STATES OF AMERICA, } ss:
District of Minnesota, }

I, H. E. Mann, clerk of the circuit court of the United States of America for the district of Minnesota, do hereby certify that I have carefully compared the foregoing copy with the original thereof which is in my custody as such clerk, and that such copy is
1076 a correct transcript from such original.

In testimony whereof I have hereunto set my hand and affixed the seal of said court, at St. Paul, in said district, this ninth day of January, A. D. 1880.

[SEAL.] (S'g'd) H. E. MANN, *Clerk.*

DISTRICT OF IOWA, *ss:*

In the Circuit Court of the United States. In Equity.

WILLIAM D. ANDREWS *et al.*, Complainants,
vs.
GEORGE HOVEY, Defendant.

This is marked Exhibit "I" by me and made a part of the 1077 evidence of the complainants in the above-entitled cause, as taken before me on the 22d day of January, A. D. 1880, at the time of the taking of the depositions of H. C. Morehead and J. M. May, as hereto annexed, on behalf of the complainants.

Witness my hand January 22d, A. D. 1880.

(S'g'd) I. N. WHITTAM,
U. S. Commissioner for the District of Iowa.

1078 EXHIBIT "J."

In the Circuit Court of the United States for the District of Indiana. November Term, 1878.

WEDNESDAY, *April* 16, *A. D.* 1879.

Present: Hon. Walter Q. Gresham, judge.

HENRY B. HINE and AMOS T. STEPHENSON *v.* JACOB WAHL.

This cause, having come on to be heard upon the bill of complaint herein, the answer thereto of the defendant, the replication of the complainants to such answer, and the proof, oral, documentary, and written, taken and filed in said cause, and having been argued at length by counsel for the respective parties, and the court being sufficiently advised in the premises, it is ordered, adjudged, and decreed by the court as follows, to wit:

1079 That the reissued letters patent No. 4372 granted to Nelson W. Green on the 9th day of May, 1871, for improvements in wells, being the letters patent referred to in the bill of complaint herein, are good and valid in law.

That the said Nelson W. Green was and is the first and original inventor and discoverer of the improvement in wells described and claimed in the said letters patent and the specification annexed thereto; that the said Henry B. Hine and Amos T. Stephenson are the exclusive owners of the said letters patent for the county of Elkhart, in the State of Indiana, within this district; that the said Jacob Wahl, the defendant herein, has infringed upon the said letters patent and upon the exclusive rights of the complainants 1080 under the same by the construction and use of wells, as charged in said bill of complaint.

And it is further ordered, adjudged, and decreed that the complainants do recover of the defendant the profits, gains, and advantages which the defendant has received or made or which have in any — arisen or accrued to him from the infringement of the said reissued letters patent by practicing, making, using, or selling the invention and thing patented as described and secured by the said reissued letters patent No. 4372 since the grant and issue thereof on the 9th day of May, 1871, and also the damages which the complainants have or may have sustained by reason of any infringement of said reissued letters patent.

1081 And now, by the agreement of the complainants and defendant, made in open court, it is further ordered, adjudged, and decreed that no reference of this cause be made to a master to ascertain, find, and report the amount of the recovery hereinbefore directed, but that in lieu and stead thereof the amount of such recovery for the said gains, profits, and advantages reaped by the defendant and the damages suffered by complainants by reason of said infringement, shall be the sum of ten dollars; and it is further ordered, adjudged, and decreed that the complainants do recover of the defendant their costs and charges and disbursements; and it is further ordered, adjudged, and decreed by the court that the defendant, Jacob Wahl, his clerks, attorneys, agents,
1082 servants, and workmen, be, and they and each and every of them are hereby, perpetually enjoined from constructing or using wells such as are described in the said reissued letters patent, numbered 4372, except that upon payment of the said decree and costs said defendant shall have the right to use the well for the use of which this suit was brought.

District of Indiana:

I, Noble C. Butler, clerk of the circuit court of the United States for the district of Indiana, do hereby certify that the above and foregoing is a full and true copy of the decree in the case of Henry B. Hine *et al.* *v.* Jacob Wahl, No. 5012, in said court, entered on the 16th day of April, A. D. 1879.

Witness my hand and seal of said court, at Indianapolis,
1083 this 22nd day of January, A. D. 1880.

[SEAL.] (S'g'd) NOBLE C. BUTLER, *Clerk.*

District of Indiana:

I, Walter Q. Gresham, judge of the district court of the United States for said district, do certify that at the date of the foregoing certificate Noble C. Butler was, and now is, the clerk of the circuit court of the United States for said district, and that his attestation aforesaid is in due form of law.

Witness my hand this 22d day of January, 1880.

(S'g'd) W. Q. GRESHAM, *Judge.*

DISTRICT OF IOWA, *ss:*

In the Circuit Court of the United States. In Equity.

WILLIAM D. ANDREWS *et al.*, Complainants,
vs.
GEORGE HOVEY, Defendant.

1084 This is marked Exhibit "J" by me and made a part of the evidence of the complainant in the above-entitled cause, as taken before me on the 22 day of January, A. D. 1880, at the time of taking of the depositions of H. C. Morehead and J. M. May, as hereto annexed, on behalf of the complainant.

Witness my hand January 22d, A. D. 1880.

I. N. WHITTAM,
U. S. Commissioner for the District of Iowa.

1085 EXHIBIT "K."

The Driven Well.

United States Circuit Court, District of New Jersey. In Equity.

BENJAMIN F. GREEN
vs. } No. 58.
PHINEAS M. FRENCH.

Application for preliminary injunction. Opinion of the court.

Hon. John T. Nixon, judge.

Joseph C. Clayton, A. Q. Keasby, for complainant; Van Winkle and Maxon, for defendant.

United States Circuit Court, District of New Jersey. In Equity.

BENJAMIN F. GREEN *vs.* PHINEAS M. FRENCH.

By JOHN T. NIXON, *District Judge:*

This is an application for a preliminary injunction.

The validity of the complainant's patent has been established by two adjudications; one in the second circuit in the 1086 strongly contested case of Andrew *et al. v.* Carman (13 Blatch., 208), before Judge Benedict, and the other in the English circuit in Andrews *et al. v.* Wright, before Judges Dillon and Nelson, the case not yet reported.

The answering affidavits of the defendant in this case substantially admit the infringement in fact, although they deny it in words, and the only question is whether there has been such an acquiescence of the complainant in the use of these wells by the defendant as to make it proper for the court to deny an interlocutory injunction.

The general principle of equity jurisprudence which underlies applications of this sort is that the court will not lend its 1087 help by way of preliminary injunction in those cases where it appears that the complainant has acquiesced in the infringement and unreasonably delayed suit against the infringers. When patentees sleep over their rights without an excuse they must not rely upon the extraordinary aid of the court when they awake from their slumbers, but must be satisfied with such relief as may be afforded by the ordinary course of practice after final hearing.

The reissue on which this action was based was granted May 9, 1871.

Within one year from that date the owners of the patent began a
suit against alleged infringers in the eastern district of New York,
which grew into such large proportions that three weeks were
1088 allowed and taken in the final argument, and which resulted,
in 1876, in a decree sustaining the validity of the patent.

The complainant explains his delay in the present case by showing that the suit above referred to was regarded by himself and many others as a test case, and that he had not the pecuniary means to prosecute all infringers, nor was he disposed to promote litigation by a multiplicity of suits until the vital questions raised by the pleadings and evidence in that case were settled by the decision of a competent tribunal.

A delay in bringing actions against infringers when satisfactorily
accounted for is not to be treated as laches. It would be a great
hardship to require patentees, who are generally poor, to in-
1089 stitute legal proceedings as soon as an infringement was ascer-
tained or lose the right to the protection which an inter-
locutory injunction affords.

Judges Nelson and Betts, in Van Hook *v.* Pendleton (1 Blatch., 193), held that the owner of a patent was not to be charged with acquiescence in an infringement because he withheld suit during the pendency of other suits to determine his right under the patent.

They say: "It is contended that an injunction ought not to be granted on the ground that the plaintiff has acquies-ed in the use of the machine by the defendants; that he has known of its use and has not interfered to prevent it.

We do not think this objection can prevail.
1090 It does not satisfactorily appear that the plaintiff knew
how the defendant's machine was constructed or how far it
infringed upon his; and if he did know we do not hold that he has forfeited his right to protection by injunction against the infringement because he did not apply sooner. He brought other suits, one against one of these defendants, to vindicate his rights, and he is not to be charged with acquiescence because he proceeded first against that which was a more palpable and obvious violation of his right, or because he had not brought suit against all the machines which infringe upon it."

It may be further observed that the affidavits of the de-
1091 fendant do not disclose the fact that the complainant has had
any knowledge of the existence of the defendant's driven well.
They allege, generally, that for several years he has had personal information and knowledge that various parties were engaged in the business or occupation of sinking driven wells in North Plainfield, in the county of Somerset, and that not until within the past

few weeks has he taken any proceedings to restrain any of said parties from the sinking of such wells.

The complainant, on the other hand, says that there has been no
acquiescence on his part, except thay may be implied from his not
bringing suits against known infringers; that he has warned
1092 and cautioned all of whom he has heard against the consequences of infringement and demanded the payment of the
established royalties before he commenced prosecutions; that in some cases the parties have agreed to pay the royalties and have thus saved to the complainant and to themselves the expenses of litigation, whilst in other cases the right of the complainant has been at first recognized and payment promised and afterwards refused.

The case falls within the principle announced by Judge Nelson
as governing the court in the second circuit in Gibson *v.* Van
Dresar (1 Blatch., 532), to wit, that the court has no discre-
1093 tion, but is bound to grant a preliminary injunction where
the validity of the complainant's patent has been established
by protracted and expensive litigation and the proof of infringement is clear.

An injunction is ordered in the above-stated case, and also in the several suits pending against William L. Smalley until final hearing or further order of the court.

A true copy.
Filed M'ch 25, 1879.

A true copy.
[SEAL.] S. D. OLIPHANT, *Clerk.*

1094 UNITED STATES OF AMERICA, *District of New Jersey*, } *ss:*

I, S. D. Oliphant, clerk of the circuit court of the United States for the district of New Jersey, do hereby certify that the annexed is a true copy of the opinion filed in said cause as the same remains of record and on file in my office.

In testimony whereof I have hereto set my hand and affixed the seal of said court, at Trenton, this twenty-fourth day of January, A. D. eighteen hundred and eighty.

[SEAL.] S. D. OLIPHANT, *Clerk.*

(Exhibit "K.")

1095 I, John T. Nixon, a judge of the district court of the United States for the district of New Jersey, do hereby certify that the above certificate, under the hand of S. D. Oliphant, Esq., clerk, and the seal of said court, is due form.

In testimony I have hereto set my hand, at Trenton, in said district, this 24th day of January, A. D. 1880.

[SEAL.] JOHN T. NIXON.

Exhibit "K."

I, S. D. Oliphant, clerk of the United — circuit court for the district of New-Jersey, do hereby certify that John T. Nixon, Esq., whose name is subscribed to the foregoing certificate, was at 1096 the time of making the same and still is a judge of said district court, and that his signature to said certificate is genuine.

In testimony whereof I have hereto set my hand and caused the seal of said court to be affixed, at Trenton, in said district, this twenty-fourth day of January, A. D. 1880.

[SEAL.] S. D. OLIPHANT, *Clerk.*

Exhibit "K."

1097 DISTRICT OF IOWA:

In the Circuit Court of the United States. In Equity.

WILLIAM D. ANDREWS *et. al.*, Complainants,

vs.

GEORGE HOVEY, Defendant.

This is marked Exhibit "K" by me and made a part of the evidence of complainants in the above-entitled cause as taken before me on January 22d, A. D. 1880, at the time of the taking of the depositions of H. C. Morehead and J. M. Meay, as hereto annexed, on behalf of the complainants.

Witness my hand January 22d, A. D. 1880.

I. N. WHITTAM,
U. S. Commissioner for the District of Iowa.

Exhibit "K."

1098 (Endorsed:) Exhibit "K." U. S. circuit court, district of New Jersey. In equity. Benjamin F. Green *vs.* Phineas M. French. Copy of opinion and clerk's certificate.

(Endorsed:) Andrews *vs.* Hovey. Deposition. H. C. Morehead *et al.* Filed Oct. 19, 1880. E. R. Mason, clerk.

1099 Circuit Court, District of Iowa. In Equity.

WILLIAM D. ANDREWS *et al. v.* GEORGE HOVEY.

Depositions on the part of the complainants for final hearing taken before Ernest C. Webb, notary public *de bene esse*, under sections 863 and 864 U. S. Rev. Stat.

Office of J. C. Clayton, No. 7 Warren street, New York city, N. Y., Dec. 10th, 1879, 10 a. m.

Met, pursuant to the annexed notice, with acceptance of due and legal notice indorsed thereon.

Present: J. C. Clayton, Esq., of counsel for complaimants; Jed. Lake, Esq., of counsel for defendant.

William D. Andrews, a witness called on the part of complainants, being first duly cautioned and sworn to tell the truth, and being examined by J. C. Clayton, Esq., of counsel for complainants, says:

Q. 1. What is your name, age, residence, and occupation?

A. William D. Andrews; I am 61 years old; residence, Brookhaven, L. I., New York; manufacturer and inventor; at present, manager of the driven-well patent and interest.

Q. 2. Are you one of the complainants in this case?

A. I am.

Q. 3. State what experience you have had in the invention, construction, and operation of pumps and other machinery relating to
hydraulics, steam engines, and mechanics generally; also,
1100 what has been the extent of your experience in the construc-
tion and operation of wells made under the N. W. Green patent in suit.

A. I have since 1840 been more or less interested in and have been using pumps for various purposes, particularly during the early portion of the time in freeing wrecked vessels of water and sand; have been an inventor of pumps, commencing in 1844, and continuing the invention of pumps down to the present time, and for fifteen years of that time was engaged in the manufacture of pumps, steam engines, boilers, and other articles of my own invention, and during that time have furnished pumping machinery to the United States Government, and for other extensive pumping operations; my manufacturing interests were principally in constructing pumps, engines, boilers, elevators, and other machinery of my own invention; since July, 1872, in connection with my brother, under the firm name of Wm. D. Andrews & Bro., have been the owners of an undivided half-interest with Col. Green of a majority of the territory covered by the driven-well patent, as granted to Col. Green, being reissue No. 4372, and have also been engaged in manufacturing wells under said patent; my time during the years from 1872 down to the present has been mainly devoted to the interests of the patent and the manufacture of wells under it.

Q. 4. Have you read and do you understand reissue letters patent 4372, being the patent in suit, and do you understand the construction and operation of the invention therein set forth?

A. I have so read the patent and understand the invention therein set forth.

Q. 5. What do you understand to be the invention described and
claimed in said patent?

1101 A. The invention is for a method of procuring water from
the earth by means of a tube inserted into the earth down to and into a water stratum, and attaching to such tube, in cases where the water does not flow naturally, a pump by an air-tight connection, and by the operation of the pump producing a vacuum within the tube which forms the body of the well and its lining, thereby causing the water in the surrounding earth, under the pressure of the atmosphere, to rush into the well formed by the tube, furnishing a

practically inexhaustible supply of water by the means as stated and described.

Q. 6. Have you read the letters patent No. 123903, granted to Elias S. Hovey February 20, 1872, for alleged improvements in the formation of drive wells, and do you understand the alleged invention therein set forth? And, if you answer yes, please compare said alleged invention with the invention described in the patent in suit, and state whether or not, in your opinion, the alleged Hovey invention is substantially like or unlike the invention described and claimed in the patent in suit.

A. I have read the specification and claim of patent 123,903, dated February 20, 1872, granted to Elias S. Hovey, of Independence, Iowa, entitled "an improved method of making tube wells, commonly called drive wells." I understand the invention set forth, and the only difference between the alleged invention therein claimed is the use of a coarsely perforated tube instead of the tube that is to form the well, in place of a rod, as described in Green's specification, the use of said coarsely perforated tube being
1102 precisely the same as the use of the rod described in Green's specification for the purpose of making a punctured hole, into which the tube which is to form the body of the well is to be placed after the withdrawal of the said coarsely perforated tube or the rod, as the case may be.

Hovey further describes the use of his preliminary tube for removing the fine sand from the gravel in immediate proximity to the well tube, which operation of removing sand from the gravel or other coarse material is performed by Green with the tube, which is either of itself driven to make its own hole into the earth or is inserted into a hole made by first driving a rod as is described in his specification, the only difference being that Hovey claims to remove the fine sand from among the coarser gravel by the instrument first driven, which is then to be followed by the tube which is to constitute the body of the well, while in the Green patent the sand is removed through and by means of the tube which is to form and remain permanently as the body of the well, whether said tube be first driven to make its own punctured hole or follows in the opening previously made by a rod, the only difference being that Hovey uses two hollow tubes instead of one tube alone or a solid rod followed by a tube, the removal of the sand being identically the same operation in either case and there being no other difference in the two methods, if two methods they may be called, the one being substantially the same as the other.

Q. 7. Please look at the 17th page of the pamphlet now shown you, which is part of a pamphlet entered according to act of Congress in the year 1868, by Cowing & Co., in the clerk's office of the district court of the United States for the northern district of New York, and state how far the drawing and description on said
1103 page, if at all, describes or anticipates the idea set forth in the said Hovey patent of removing the fine sand so that the gravel may come in contact at the lower end of the tube?

A. I have the pamphlet referred to in hand, and I find a cut on page 17 showing two driven-well tubes inserted into the earth with openings shown near their lower ends, and about said openings is shown coarse material unlike the soil shown as surrounding it, and which said material about the openings of the tube is shown to be coarse and freed from the finer particles, and I find beneath the cut the following: "Sectional view of the well."

Illustrated in connection with the pump shown under Fig. 214 and Fig. 215 representing the points as surrounded with gravel from which the sabulous particles have been withdrawn, which is generally the case, excepting where they terminate in quicksand.

The drawing and description as given anticipates and accomplishes all that is set forth in the specification of the Hovey patent, to wit:

The freeing of the material immediately surrounding the tube in contact with and the immediate neighborhood of the openings of the finer particles of the earth, sand, or other material, and leaving between the coarser particles by such removal freer openings for the passage of water from the surrounding earth into the well tube.

Q. 8. How long, to your knowledge, has that pamphlet been in print?

A. To my absolute knowledge since 1871; I don't remember ever to have seen it previous to that year, but think I did.

(The 1st page of cover, title-page, indorsement on back of title-page, and 17th page, offered in evidence by complainants' counsel, and marked Complainants' Exhibit Cowan & Co., 1868. Circular Dec. 10, '79. E. C. W., notary.)

1104 Q. 9. State whether or not the cut and description on page seventeen, above referred to, correctly represents the practical operation of the invention described in this patent in suit.

A. Practically they do so represent what actually takes place—the proportions given in the cut are or would be, in many instances, an exaggeration—the principle as depicted and described in the text below the cuts is correct.

Q. 10. State which of the two, an ordinary open well or a well constructed according to the patent in suit, will yield the greater quantity of water under the same circumstances of soil, depth, and pump capacity. Illustrate by stating facts or experiments within your personal experience.

A. An inch-and-a-quarter tube inserted into the earth with a pump attached to its upper end and operated as set forth in the specification of Green's patent will, if constantly operated for a considerable time, say ten or more hours, produce and deliver very much more water in the time named than an ordinary dug well thirty inches in diameter will produce and deliver when operated by the same pump and the same pipe during the same number of *years*, the operation of the pump in each case to be the same and to be continuous. We made an experiment in the United States court-room, before Judge Benedict, during the argument in the case of Andrews *et al.* against Carman, of the following character: We procured a box about four feet in length, two feet in width, and three and a half feet in depth; into one —

of this box was placed a cylinder of perforated brass six inches
1105 in diameter and nearly the depth of the box; we then filled
the box to the depth of about thirty inches with sand, outside of and around the cylinder so placed, which was about six inches from one end of the box, filling the entire box except the inside of the cylinder to the depth named with sand; the cylinder so placed represented an open well lined with perforated brass from top to bottom so as to permit water which was poured upon the sand until it was saturated, and a small amount left standing on the surface of the sand, to enter the well through its entire surface from top to bottom; we then took two small hand pumps of precisely the same style and make, attached the working valve-rod of each pump to a working lever equidistant from its centre, which was pivoted to a stationary upright, and to each of the pumps we attached an iron tube of the same size, having each at its lower end a point—technically so called—six inches in length, made of perforated brass of the same character, size, and number of openings to the square inch as was the lining of the open well as described; in the bottom of each of these points, as described, was a metal point fastened, and the upper end of each perforated point was attached to the lower ends of the respective tubes, each pump tube and point being a perfect *fac-simile* of the other; we then *having* these pumps attached to a single plank, through which their suction pipes passed downward; we then inserted simultaneously the one tube into the open well, which was filled with water and contained no sand, and the other directly into the solid sand at the same distance from the other end of the box as was the centre of the open well from its end of the box; we then operated the pumps simultaneously, each having the same stroke and capacity; in about one minute all the water in the open well was pumped out, the water from both pumps being discharged back upon the sand, insuring a full supply to each well according to its capacity; after emptying the open well the pumps were continued in operation; the one having its pipe tightly inserted into the sand saturated with water was continued in operation for several minutes without the least apparent diminu-
1106 tion in the amount of water it delivered, while the pump in
the open well did only deliver an occasional spoonful after the well had been first emptied, as before stated, in about one minute; the pumping was continued until the judge remarked that it had been long enough continued to show its inexhaustibility; more fully to exemplify the principle that the atmospheric pressure forced the water directly from the sand into the vacuum formed in the tube inserted into the sand, and that the surrounding of the tube in the water-bearing stratum by the earth compacted about it was the cause of the greater delivery being obtained from a driven than from an open well, in consequence of the insertion of that tube into the earth, we then, without making any change whatever, either in the pumps, pipes, box, or lining of the open well, filled the open well with sand, which was packed tightly around the tube up to the level of the other sand in the box outside of this well, the only real difference then existing between the two pumps, pipes, and wells being

that the pipe in the open well was, while surrounded with the sand compacted against it, still further surrounded by the perforated brass through which and from which the pump with its pipe in that well had only received a supply which, coupled with the amount of water standing in the well itself, supplied the pump for but one minute; we then again commenced operating the pumps, and the supply from each was continuous and equal; this operation was continued until the court was satisfied that the filling up of the open well had increased its capacity and made it equal in delivery to the first driven well. I would further state that at the present time there are in operation driven wells at the New York Gas Light Co.'s works in this city which have been in operation for some three years, working constantly seven days in a week and twenty-four hours each day, the supply still continuing at a rate that no open well I have ever had occasion to use, and I have used and emptied, as a part of my business, open wells of from ten to twenty feet in diameter, ever did
do; at the Newark Water Works at Belleville, N. J., are 20
1107 driven wells connected together and operated by a steam
pump, which have now been in use for about three months, supplying, as by report of the engineer, about two and three-quarter millions of gallons per day, which I have seen in operation; have not measured the water from, but from my experience—seeing the stream of water delivered—am satisfied that the report is correct, at least substantially so.

No open wells that I know or ever have heard of, other than an artesian well, ever has given such a supply as this for any length of time; not even for 24 hours.

Immediately adjoining the property where these wells are put down are two large square wells, I think, 300 feet long by 140 feet wide—thereabouts at all events—which were once used as open wells, deriving their supply from the earth. I have no actual knowledge of the amount of that supply, but it is reported by engineers that one million of gallons per day were obtained from these immense wells when first started, which supply very soon decreased to half a million of gallons per day, and the project of obtaining water from the earth by means of open wells was abandoned and the wells connected with the river, from which they are still receiving their supply, said to be some eight millions of gallons per day, less the two and three-quarter millions supplied by the driven wells, which is pumped directly into the large square wells, and thence mingling with the river water is pumped from the wells into the mains to supply the city of Newark with water.

It would be impossible for me to recite the facts concerning all the driven wells of which I have knowledge as compared with open wells, but can only say generally that open wells in this city and vicinity have been discarded and driven wells are now furnishing supplies of water to hotels, large manufacturing establishments, and others using large quantities of water in quantities impracticable to
be obtained by open wells upon the premises.

1108 Q. 11. What do you consider to be the principle features
of novelty contained in patent in suit?

A. The features are—1st, that the well is made by the simple process of driving either a rod to make the opening into the earth into which is inserted the tube which forms the lining of the well or of driving the tube itself, properly pointed, which then becomes itself the instrument which forms the opening, the lining of the well, and composes the well itself, in contradistinction to any methods previously employed for making wells, it being cheaper, easier, and a more effective method of making a well than had been previously practiced by excavating; 2d, the operation of the well made as described enables advantage to be taken of the pressure of the atmosphere to force the water from the surrounding earth into the body of the well, in which a vacuum has been produced by the use of a pump attached by an air-tight connection to its upper end, this operation rendering the well vastly more effective and productive than by any previously known and practiced method.

Q. 12. As you understand the invention, is it material how the pipe through which the water is drawn by means of the pump is
inserted into the water-bearing stratum, whether by blows or
1109 other force applied to the pipe, or whether by drilling the
hole into which the pipe is afterwards inserted?

A. A pipe, inserted tightly into the earth in the water-bearing stratum and operated by a pump attached to its upper end drawing the water directly from the earth into the tube or body of the well, utilizes the discovery made by Col. Green and infringes his invention, which is founded mainly upon this discovery, the process of driving being also new, but rendered doubly effective by the utilization of his discovery, which may be utilized by other than the exact means described by him.

Q. 13. What experience have you had in the matter of constructing and operating pumps for the purpose of removing large volumes of water or sand from ship channels and other places?

A. I was engaged in the pioneer efforts made in this country for the raising of stranded and bilged ships by pumping from them the water and sand which accumulated in them, and also in the pioneer efforts to recover wrecked goods remaining in the bottoms of ships whose upper works had been destroyed by the sea, and their bottoms and remaining cargo covered to very considerable depth by sand, which had to be removed from above the cargo in some cases to the depth of twenty feet, and I invented a centrifugal pump to enable us so to remove sand from above sunken cargoes, and did by that means so successfully remove cargoes of iron, steel, copper, &c. I have also furnished pumps of my more recent invention for similar purposes and for deepening the water upon the bars of several rivers to improve their channels, which operations have been successfully conducted under the supervision of naval officers of the United
States with pumps of my invention, driven by engines of my
1110 invention and used under my instructions. I also furnished
a centrifugal pump of my latest patented invention for use
by Captain Eades at the mouth of the Mississippi, to assist in deepening its channel, which has been successfully so used, being capa-

ble of discharging sixty thousand gallons per minute, and passing solid substances not exceeding two feet in diameter.

Cross-examined by Mr. LAKE, of counsel for defendant:

X Q. 14. How long have you been in the business of making machinery?

A. I commenced, I think, in 1852.

X Q. 15. Are you now engaged in that business and have you been continuously engaged in that business since 1852?

A. I am not now personally engaged in manufacturing, our tools and machinery being in use by other parties for manufacturing under my patents.

X Q. 16. When did you cease manufacturing?

A. I think about three years ago.

X Q. 17. Are you now one of the owners of the Green patent of the driven wells?

A. I am.

X Q. 18. When did you become such owner?

A. In July, 1871.

X Q. 19. Are you now engaged in prosecuting suits for infringement of that patent?

A. I am.

X Q. 20. Are you the person who has the principal charge of those suits?

1111 A. Yes.

X Q. 21. In your direct examination you stated that it was a part of Green's patent to connect the tube by an air-tight connection to a pump; now state whether that is a new invention.

A. The connecting of a pump to a pipe was not then a new invention, but the connection of a pump to the tube, as inserted into the ground by him, formed a part of a process which Green described and patented, and which I believe to be his invention.

X Q. 22. Will you now answer the question whether it was a new invention to attach a pump to a tube by an air-tight connection?

A. As I answered the previous question, I again answer, that the attaching a pump to a pipe by an air-tight connection was not new at the date of Green's patent.

X Q. 23. At the date of Green's claimed invention was it a new thing to make wells by drilling a hole into the earth?

A. Wells were previously made by drilling.

X Q. 24. In the matter of the experiment described by you as having been made in the court-room before Judge Benedict, how many and how large were the holes made in the brass cylinder that you used to represent an open well?

A. It was what is called number 2 perforated brass, the holes in which are, I think, about a thirty-second of an inch in diameter, and I think about eighty to the square inch.

X Q. 25. Do you mean to state that such a cylinder would not admit water through it readily?

A. I do not.

X Q. 26. Did you ever make a similar experiment in the earth in an open well and one drove beside it where the pipe only went to the same depth as the open well?

A. I don't remember that I did any special one.

X Q. 27. In the wells put down at the New York Gas-Light Co.'s works do not the tubes driven go down below the surface of water standing in the bay near them?

1112 A. They were not near the bay.

X Q. 28. How far are these wells from standing water?

A. Three or four hundred feet.

X Q. 29. Is not that water a part of the bay surrounding the city?

A. There is no bay surrounding the city.

X Q. 30. What is the name of the water within three or four hundred feet of these wells?

A. It is known as the East river.

X Q. 31. Are not these tubes at the gas-light company's works driven down below the surface of the level of the water in the East river?

A. They are.

X Q. 32. Did you assist in driving them or did you see them driven?

A. I did see a portion of them driven; was not present during the entire driving.

X Q. 33. What is the nature of the soil into and through which they were driven?

A. So far as we ascertained, principally sand, quite fine sand.

X Q. 34. Is the soil the same from these wells to the East river, at the nearest point?

A. I don't know; I presume it is.

X Q. 35. How far are the driven wells that you speak of as being at Belleville, N. J., from the large open well there?

A. I should judge about 600 feet.

X Q. 36. How far are these driven wells from the river at that place?

A. The open wells that I speak of are between the driven wells and the river and about 200 feet from the river, I think; the driven wells being, I think, between 900 and 1,000 feet from the river.

X Q. 37. What is the character of the soil where these driven wells are?

A. It is represented to be sand and gravel.

X Q. 38. What is the character of the soil where those dug wells are?

A. It is, I think, of the same general character.

X Q. 39. Were the tubes, in making these driven wells, put down lower than the bottom of these open wells?

1113 A. I think they were.

X Q. 40. Do you claim that Mr. Green's patent covers the principle of atmospheric pressure?

A. Yes, when used as part of the process described by him and in the manner as described.

X Q. 41. Is anything said in his patent or the specifications or claim about atmospheric pressure?

A. The term atmospheric pressure is not used in the specification or claim.

X Q. 42. Would any pump work if it was not for the pressure of the atmosphere?

A. Yes.

X Q. 43. What kind of a pump?

A. An air pump.

X Q. 44. Would an air pump work if there was no air?

A. No.

X Q. 45. If there is air is it not necessarily accompanied by pressure?

A. No.

X Q. 46. Would a common water pump work without atmospheric pressure?

A. Atmospheric pressure exists over the surface of the earth and presses upon the water in lakes, rivers, or under the earth; the air must necessarily press upon the water removed by the pump, and as atmospheric pressure is universal it is in some way brought into play whenever water is removed by a pump or otherwise, but it is not necessarily utilized in all pumps or pumping operations.

X Q. 47. Would a hydraulic pump work if it was not connected air-tight with a tube reaching into the water?

A. Yes; under certain circumstances; pumps are frequently set under water without any air-tight suction pipes connected with them.

X Q. 48. Would a pump that is set above the water and of which the cylinder is above water, draw water from below in case the connection was not air-tight?

A. No, sir; it would not.

X Q. 49. Is the atmospheric pressure, as operated on water, when one of the driven wells is used, any different at any other time?

1114 A. There is no difference in the action of the atmospheric pressure, but a decided difference as to the results.

X Q. 50. Explain the difference in the results.

A. In a driven well the atmosphere is removed by the action of the pump from the body of the well itself, which well, through the openings at or near the lower end, is in direct communication with the large body of water within the earth surrounding the tube, and the pressure of the atmosphere having been removed from the body of the well, and still retaining its pressure upon the surface of the water in the earth outside the well, forces that water into the well with a speed due to a pressure of about fifteen pounds to the square inch, whereas in an open well the pressure of the atmosphere not being removed from the surface of the water in the well, but only within the tube of a pump inserted into the open water in that well, when the pump is operated and a vacuum formed in the tube, the water will rush from the open well into that tube in response to the vacuum, and if the action of the pump is continued all the water will be drawn out of the well, the pressure of the atmosphere following down as the water is exhausted balancing the pressure of the atmosphere upon the water about it and leaving only the effect of gravitation to act upon the water outside the well to replenish it, which action is equal to about one-half pound on each square inch for each foot of difference in the head water within the well and in the earth outside.

Adjourned to Dec. 11th, '79, at 10 a. m.
(Signed) ERNEST C. WEBB,
Notary Public.

1115 NEW YORK, *Dec.* 11*th*, 1879—10 a. m.

Met pursuant to adjournment.
Present: Parties as before.

Cross-examination of the witness ANDREWS resumed by Mr. LAKE:

X Q. 51. As to the wells at Belleville, N. J., on what river are they situated? And state, if you know, how much deeper the tubes are driven than the large open wells are dug.

A. The river in the immediate vicinity is the Passaic. The driven wells go down, I think, fifteen to twenty feet below the bottom of the open well.

X Q. 52. In your examination you have spoken of the body of the well. Do you mean by that the tube to which the pump is attached, when you speak of it as applied to the driven well?

A. Yes.

X Q. 53. Does not the tube in the driven well constitute the entire body of the well?

A. It does constitute the entire body of the well proper.

X Q. 54. Do you claim that in case a person digs down to water and as far into the water-bearing strata as he desires, then sets into that a pump tube with pump attached, and then fills in around it with gravel and fills the hole thus dug full and uses it as a well, that he will infringe the patent in suit?

A. A well made in the method described can only be made productive by utilizing the discovery of Col. Green, that the pressure of the atmosphere upon the surface of the water within the earth will operate to force that water from the earth into the tube forming the body of the well in such quantity as will make it a productive, useful, and practicable method of obtaining water directly from the earth; and I do claim that a well so made and operated would infringe the patent of N. W. Green upon which this suit was brought.

1116 X Q. 55. In case the dug well is walled up from bottom to top, and a pump set in with a pipe to the bottom, and the gravel is put in so as to fill the well above the water, and it is used as a well, do you claim that it would infringe the patent in suit?

A. If the material with which the well is filled is of the same nature as the earth surrounding the dug well, and the walls of the well are open to receive water from the surrounding earth, the operation of the pump under those circumstances would utilize the discovery of Col. Green and would consequently, as I claim, infringe upon his patent.

X Q. 56. In case a man took an augur and bored down to and into the water-bearing strata, and lifted the dirt out with his augur, and then put into that hole a tube with pump attached, and used it as a well, do you claim that it would infringe Green's patent in suit?

A. If the tube so inserted was around the openings into it in close contact with the earth, it would utilize the discovery of Col. Green, and would, as I claim, infringe the patent in suit.

X Q. 57. In case, after boring down as stated in the last question, a party should put in a lining and put the pump tube inside the lining and use it as a well, do you claim it would infringe the patent in suit?

A. If the tube which is put down inside is smaller than the orifice in the outer tube, so that a space is open between the two, in which the pressure of the atmosphere is free to act on the surface of the open water between the tubes, and such open water extends down below the orifice in the suction pipe, there being no earth in contact with the outside of the inner suction pipe, but a body of free water existing between the two tubes, upon which the atmosphere had a direct bearing, the operation of a pump attached to the inner tube would not utilize the discovery of Col. Green, and, as I claim, would not infringe his patent.

X Q. 58. Then Green's patent consists in having earth close to the openings in the bottom of the tube, does it?

A. One of the elements which renders Green's process valuable consists in having the openings into the body of the tube or well
(which tube is connected by an air-tight joint to a pump),
1117 closely surrounded by earth, sand, or other similar material,
which shall prevent the existence of any open body of water between the surface and the suction openings to the well.

X Q. 59. In case a hole was made by drilling by a churn drill down to and into the water-bearing stratum, moving the earth laterally only, and then should insert a pump and use it as a well, would that infringe the patent in suit?

A. That would depend upon whether the tube attached to the pump filled the hole and brought the water surface of the earth in close contact with the tube so as to enable the pump through that tube to draw water directly from the earth surrounding it. If it did so draw the water, then, as I claim, it would be decidedly an infringement.

X Q. 60. In case a hole is drilled into the earth and then a lining put in, the pump tube set inside that lining, and the same is used as a well, would that infringe the patent in suit?

A. If the pump tube stood in and drew from a free body of water and was not in contact with the earth, the atmosphere acting directly upon the free water inside the first tube described, it would not infringe as I claim.

X Q. 61. In case of a drilled well lined and the lining made air-tight through its extent, and the tube put inside the lining, and the pump attached to both tube and lining by an air-tight connection and so operated as a well, would that infringe the patent in suit?

A. If the outside tube, as described, was in close contact with the earth and the pump attached to the upper end of that tube by an air-tight connection the outer tube would then become the body of the well, and it would utilize the discovery of Colonel Green when a vacuum was formed within it by the action of the pump, and would, as I claim, infringe the patent.

X Q. 62. Do you claim that Green's patent covers either the tube, the point, or the pump?

A. I do not claim that Green's patent covers any particular mechanical devise, but that it covers a process of procuring water from the earth.

X Q. 63. Can a person use the pump, point, and pipe in an open well without infringing Green's patent?

1118 A. A person can do so most assuredly.

X Q. 64. Do you claim that Green's patent covers the removal of the fine sand and matter from near the end of the pump tube?

A. One of the resultants of his process is the removal of the fine sand and particles from among the interstices between the coarser particles of earth, sand, or gravel surrounding the tube, but I do not claim that such removal forms any portion of the invention as patented.

Redirect examination by Mr. CLAYTON:

R. D. Q. 65. What is the character of the water in the East river as compared with the water in the Green wells at the New York Gas Light Co. works?

A. The water in the East river is very salt—almost the same as sea water; the water in the wells is fresh water.

R. D. Q. 66. What is the character of the water in the Passaic river at Belleville as compared with the water in the Green wells at Belleville, to which you have above referred?

A. The water in the river contains many impurities, and during the summer season maintains a temperature of from 70 degrees and upwards. The water from the driven wells is much clearer, whiter, and stands at between 50 or 55 degrees temperature. Analyzation by Prof. William Ripley Nichols, of Boston, made in May, 1879, from driven wells then in use in the next lot to where the present wells are working and some 500 feet from them, showed a decided difference in the foreign constituents contained in the waters.

Witness continues: A subsequent analyzation by the same professor of the driven well water, reported Nov. 8, 1879, shows an increased difference between the water from the wells and that from the river than what existed at the time of the first analyzation.

1119 R. D. Q. 67. State whether or not, in point of fact, you have frequently examined the wells at Belleville and at the works at the New York Gas Light Co., their construction and operation, the surrounding soil or land, and the said rivers at the points near the said wells.

A. I have.

R. D. Q. 68. Where, in your opinion, does the water which supplies the driven wells at Belleville come from?

A. I am undecided in my own mind just where the water does come from, but it undoubtedly is water that is standing within the earth and may come from miles distant, but, in my opinion, cannot come from the river or the settling basins or wells which are supplied mainly from the river, for the reason that after pumping some 250,000,000 of gallons of water from the driven wells the water from them still maintain, a temperature some fifteen or twenty degrees below that of the river water and still maintains its comparative purity, the recent analyzation showing a greater difference between the water from the river and the driven wells than existed previous to this extensive pumping; and, in my opinion, these facts prove that the water supplied by the driven wells comes from some underground distant source.

1120 R. D. Q. 69. State whether or not there was any open well at the works of the Gas Co.; and, if so, its depth and water yield.

A. On the premises of the gas company on the opposite side of the street, perhaps 200 feet from the driven wells, they dug and put down cylindrical excavations for gas-holders to the depth of about 30 feet, a depth greater than the most of the driven wells I testified of and, I think, equal in depth to any of them. These excavations were, I think, 100 feet in diameter, and during their making water came in, but was discharged and kept down so that walls and bottom were built into this excavation, and the entire amount of water supplied by one of these excavations was, I think, considerably less than the amount furnished by the driven wells; at all events, instead of making use of the water thus furnished, they employed us to furnish them a supply by means of the driven wells.

R. D. Q. 70. You have said that at Belleville the driven wells extended about twenty feet below the bottom of the two large open wells there. What would have been the effect had the open wells been made to a depth equal to that of the driven wells?

1121 A. If the open wells had been dug to the depth of the driven wells the pressure of water, which would have been equal to a head of 20 feet or 10 pounds per each square inch, would have brought up the soil from the bottom in masses and destroyed the wells, unless means were taken to so construct the bottom as to prevent the raising of the water in the wells under such pressure.

(S'g'd) WM. D. ANDREWS.

William D. Andrews, a witness heretofore produced, sworn, and examined, being recalled and examined by Mr. Clayton, on his oath says:

Q. 1. Defendant in this cause makes the following admission on the 4th page of his answer herein, wherein he says that "he makes all his wells by boring down to and into the water; then he puts in a tube with large holes in the bottom without a screen; then puts in a tube with holes and a wire screen over the holes and attaches to that a pump. This is his method of making wells." Please state whether or not, in your opinion, a well constructed and operated according to that admission and description is substantially like or unlike the invention described and claimed in the patent in suit. State your reasons for such opinion as you may express.

A. A well so made as described, although the description is somewhat defective and does not include all the acts and describe all the conditions which, in connection with what is stated and described, must necessarily exist, is still substantially like the invention described and claimed in the patent in suit. The reasons for my opinion are these: He states here that he makes all his wells by boring
down to and into the water, and then he puts in a tube with large
1122 holes in the bottom without a screen; then puts in a tube with
holes and a wire screen over the holes, and attaches to that a
pump. This, he says, is his method of making wells. What he has here described is not a well until it produces water, which he does not state, but which is a necessary implication and meaning of the language he uses. Further, he says he puts first in a tube with large holes in the bottom without a screen. He does not describe the use of that first tube; does not say that he connects a pump to it even, and the well which he says he makes, when finished, consists of a tube with holes covered with a wire screen, which he puts into a bored hole, as the language used would imply, but does not distinctly describe. If the tube and the pump so attached and placed in a bored hole be used as a well it must necessarily be in contact with the earth in the water stratum, for the reason that boring will not leave a hole in the earth in a water-bearing stratum that exceeds in depth over one-half its diameter, and to make the tube and pump as described a productive well it must be tightly inserted into the earth, at least beneath the upper surface of the water stratum, and the tube so attached to the pump must necessarily be forced or driven down into the water stratum.

Witness continues: And in that condition utilizes the discovery
of Col. Green, and therefore infringes upon his patent, and in
1123 making the well it also must infringe upon the process de-
scribed by Green for making a well; and when defendant says, as in the answer, that he never makes a well by driving or forcing an instrument into the ground without removing the earth upward he does not remove the implied meaning of the language previously used inasmuch as he does not say that he removes upward all the earth, but that he removes earth upward, which his boring down to water naturally implies; but it is impossible, by the

use of an auger, to bore such a hole into a water-bearing stratum without the use of sustaining walls or lining the hole so bored down to the depth necessary to insert the suction tube into the water.

Q. 2. The following words occur on the last page of defendant's answer: This defendant says that he is the owner of the right to make wells by the process patented to Elias S. Hovey as set out in his patent 123,903 for State of Iowa—that he makes all the wells he has ever made by that process. Assuming this statement to be true, do the wells made by the process described in said patent embody the process described and claimed in the Green patent in suit?

1124 A. The process of making drive wells as described by Elias S. Hovey in the letters patent referred to are substantially the same in every respect as the process described in the patent of N. W. Green, the only difference being that Hovey describes the pumping out of fine sand by the use of a preliminary tube, which tube takes the place, peforms the duties of, and otherwise accomplishes the same results as the rod mentioned by Green in his specification; the only practical difference is the pumping out of find sand previous to inserting the tube which is to form the permanent lining and body of the well, which last in Green's case peforms the same office as the preliminary tube described by Hovey, and was thus described by Green as being his use and custom long before the issuance of the Hovey patent. I would add that the whole scope and tenor of Hovey's specifications and claims are descriptive of drive wells, and he terms his alleged invention to be an "improvement in making tube wells, commonly called drive wells," and he claims "the method of process of making drive wells hereinbefore described."

Q. 3. State whether or not if a hole be bored by a three-inch auger down into water can a pipe of one and a half inch diameter be put down into that hole to a depth sufficient to make it a productive well without forcing or driving the pipe.

A. It cannot.

Q. 4. Why?

A. Because a hole cannot be bored into the earth and down into a water-bearing stratum of the earth with a three-inch auger to a sufficient depth to insert a tube in the water-bearing stratum far enough to make a productive well without driving the tube, as the earth in the water stratum will fill the hole immediately the auger is withdrawn, and no hole will remain in the water stratum unless
1125 a lining or supporting wall is put down with the auger to prevent the hole from immediately filling.

Cross-examination waived.

(S'g'd) WM. D. ANDREWS.

1126 THOMAS C. THEAKER, a witness called on the part of the complainant, being first duly cautioned and sworn to tell the truth, and being duly examined by J. C. CLAYTON, Esq., on his oath, says:

Q. 1. What is your name, age, residence, and occupation?

A. Thomas C. Theaker; I am 67 years old; residence, New York city, N. Y.; machinist and solicitor of patents—patent attorney.

Q. 2. State what has been your experience as a machinist and as connected with patents, stating whether or not you have held any governmental position in which you were called upon to consider mechanical distinctions and questions of patentability; also state whether you have been called upon to testify as an expert in patent causes.

A. I have been practically and theoretically making the business of machinery the business of my life for more than forty years. I have built many steam engines of different kinds; carried on a machine-shop for that purpose for many years. I was in the Patent Office for a term of about seven years, about four of which I was an examiner-in-chief, and the balance as Commissioner of Patents. I have been called upon to testify as an expert in patent causes in a few cases.

Adjourned to Dec. 12, 1879, at 10 a. m.

(Signed) ERNEST C. WEBB,
Notary Public.

NEW YORK, *Dec.* 12, 1879—10 a. m.

Met pursuant to adjournment.
Present: Parties as before.

Direct examination of the witness THEAKER resumed by Mr. CLAYTON:

Q. 3. State whether or not you were the Commissioner of Patents of the U. S. at the time of the grant of the original letters patent 73425 to N. W. Green, dated January 14th, 1868, being the patent upon which the reissue in suit was granted. 1127

A. I was.

Q. 4. Did you act officially upon the application which resulted in the grant of said letters patent 73425?

A. I did.

Q. 5. State whether you have carefully examined and do you understand reissued letters patent 4372, being the patent in suit?

A. I have examined it and think I understand it.

Q. 6. Do you understand the construction and operation of the invention therein described and claimed and its principle of operation?

A. I believe I do.

Q. 6*a*. What do you understand to be the invention and principle of operation therein set forth?

A. I understand the invention of Col. Green to consist in forming or constructing wells by inserting into the earth a pipe or tube and forcing the same down to the water-bearing stratum in a manner to utilize the pressure of the atmosphere upon the water in the earth surrounding the well by the formation of a vacuum within the well tube, and thus increasing the inflow of the water from the earth into the same.

Q. 7. Point out the difference in the principle of operation between an ordinary open well and a well constructed according to the invention described in the patent in suit.

1128 A. In an ordinary open well the atmosphere is left free to press upon the surface of the water in the well, and thus counteract or retard the inflow of water from the earth to the well with a force equal to about fourteen pounds to the square inch; in Green's driven well this pressure is taken off by the vacuum formed therein, and of course the inflow of water increased to the amount due to the fourteen or fifteen pounds pressure of the atmosphere.

Q. 8. In the case of the ordinary open well what force of nature causes the water to come from the earth into the open well-pit?

A. Gravity.

Q. 9. In the case of the Green well what force or forces of nature causes the water to enter into the well?

A. Gravity and atmospheric pressure.

Q. 10. State whether you have carefully examined and do you understand letters patent 123,903, granted to E. S. Hovey Feb. 20, 1872, and do you understand the invention therein described and claimed and its principle of operation?

A. I have examined it and think I understand it.

Q. 11. State whether or not a well, constructed according to the process described in the said Hovey patent, would embody or employ the invention described and claimed in the Green reissue patent in suit? Please give in detail the reasons for such opinion as you may express.

A. I think they would employ the principle of the invention described in the patent of Green; Hovey, in my opinion, does, 1129 by driving two tubes, in substance what Green does by means of one tube or by means of an iron rod and tube. My reason for so thinking, is that in both cases they seem to utilize or do utilize the advantages derived from forming a vacuum in the well and thus relieving it from the effect of the atmospheric pressure therein, which would necessarily retard the inflow of the water.

Q. 12. Please take in hand the pamphlet, three pages of which were yesterday offered as an exhibit, as certified by the notary, and say what purports to be the date of its publication, referring only to the pages marked by the notary.

A. It purports to be published in 1868.

Q. 13. What is the date of the Hovey patent, in regard to which you have been testifying?

A. According to the certificate of the present Commissioner of Patents, which I hold in my hand, said patent was granted to Hovey Feb. 20, 1872.

Q. 14. Please refer to the pamphlet, Complainants' Exhibit Cowing & Co. 1868 Circular, page 17. Examine the cuts on that page and the printed matter beneath the cuts and say what is therein described by the cuts and text.

A. From an examination of the page and document referred to I believe that the devices shown and described therein show the utilization of the invention claimed by Green.

Q. 15. In the description do you find anything not contained in the specification of the Green patent?

1130 A. I do not.

Q. 16. Will you please say what, if any, difference is shown in the processes as described in the Green reissued patent and the Hovey patent?

A. The difference between them consists in substance only in this, that Hovey uses two tubes, while Green uses but one tube or one tube and an iron rod.

Q. 17. Does or does not Hovey, in the specification of his patent, speak of pumping out fine sand during his process?

A. He does.

Q. 18. Does or does not the printed matter under the cut on page 17 of Complainants' Exhibit "Cowing & Co. 1868 Circular" speak of removing sand from around the point of the well in substantially the same manner as is described in the Hovey patent?

A. The said text upon the page referred to does show that the sabulous particles are withdrawn, from which we conclude that sand is of course meant.

Q. 19. Do or do not the cuts upon that page represent the removal of fine particles and the remaining of coarse particles only about the openings in the suction pipe?

A. I think they do.

Q. 20. Do you or do you not find anything in connection with the removing of sand as in the Hovey patent of 1872 substantially differing from what is described on page 17 of Complainants' Exhibit "Cowing & Co. 1868 Circular."

1131 A. I do not.

Q. 21. Then, is it or is it not true that the process of removing sand substantially as described by Hovey was described in the pamphlet, Complainants' Exhibit "Cowing & Co. 1868 Circular," if its date be correct, that that portion of the process as described by Hovey was known to and described by Colonel Green nearly four years previous to the Hovey patent?

A. It is true.

Cross-examined by Jed. Lake, Esq., of counsel for defendant:

X Q. 22. Have you had any practical experience in making wells by or according to the Green patent?

A. I have not.

X Q. 23. Have you had any practical experience in making wells by the method described in the Hovey patent?

A. I have not.

X Q. 24. Are you called, then, as an expert only in this case?

A. I presume I am so called.

X Q. 25. Now, does Hovey claim anything in his patent except the process of removing fine sand from about the foot of the pump tube where it is in the water?

A. I understand Hovey's claim to be for the method or process of making drive wells by using, in the first instance, a coarsely perforated tool or tube, and thereafter introducing a permanent finely perforated tube for the purpose set forth, which is the obtaining of water by the means described and shown.

X Q. 26. Now, please state whether, in the specifications attached to Hovey's patent, the pumping out of fine sand near the tube is not the main feature claimed by him to be new?

A. That is certainly represented as one of his objects, but
1132 if the lower end of his tube happened to stop where there
was no fine sand, but gravel, then that object of his patent
would be abortive and useless.

X Q. 27. You say you have examined the Hovey patent and Green's patent and reissue and think you understand them thoroughly, do you not?

A. I think I do understand them correctly.

X Q. 28. In case a party should make a well by taking an iron rod with a point sharpened either round or wedge-shaped, and should with that drill a hole in the ground where there was no rock, by rising and letting fall the rod until it was projected into a water-bearing stratum, and should then insert into the hole a metallic pipe and attach to the upper end a pump, and pump water through it, would that be an infringement of Green's patent?

A. In my opinion it certainly would be an infringement of Green's patent, provided the pipe inserted, and to which the pump was attached, so filled the hole made by that pointed rod as to prevent the pressure of the atmosphere upon the water in the well.

X Q. 29. Supposing before the time that Nelson W. Green claims to have invented this process of making a well some other person had made a well by driving an iron tube into the earth until it was projected into a water-bearing stratum, and had then attached a pump and pumped water through it and used it as a well, would not that anticipate Green's invention?

A. That act of that one other person referred to having done what is referred to in the question would not necessarily and legally anticipate Green's patent, even supposing that he had accidentally and without his own knowledge or that of any other person utilized the atmospheric pressure, and provided that this knowledge of the gist and principles of the Green invention had not thereby been given to the public.

X Q. 30. Would not such a well in all particulars be equivalent to the well claimed to have been made by N. W. Green in the patent on suit?

A. Providing that the tube inserted in the hole made as described in the supposed case was so inserted as to exclude the action of the atmosphere and having a pump attached and the lower end of the tube perforated to allow the ingress of water thereto, it would substantially.

1133 X Q. 31. How much space would be necessary around
the tube to enable the air to pass down to and press upon
the water?

A. Any amount of space whatever would cause pressure upon the water, and if the space were large enough to allow the full supply of air to the water equal to that withdrawn by the pump in forming vacuum, then there would be no advantage derived from the pressure of the atmosphere in drawing water. It follows, therefore, that one-half said space would allow half the pressure of the atmosphere to be exerted upon the water and apportional counteraction of the inflow of water.

X Q. 32. In your last answer do you mean to be understood that the air would go down by the tube in a very small space?

A. I certainly do.

X Q 33. In case a party should take a rod of iron with a point on the same, either round or wedge shaped, and, by raising and filling it, either by hand or windlass, should make a hole down to and into a water-bearing stratum, and, withdrawing that, should insert a metallic pipe or tube, and should attach a pump to it and use it as a well, do you claim that it would infringe the patent in suit?

A. Provided it excluded the pressure of the atmosphere by being inserted tightly in the hole, it would.

X Q. 34. Did you ever make any actual experiments by boring into a water-bearing stratum to know how long a hole so made would remain without filling in with sand and gravel?

A. I did not.

X Q. 35. From your knowledge of mechanics, would a hole made in a water-bearing stratum by a drill stay free from matter falling into it longer than a hole made with an auger?

A. I don't see why it would; I do not think it would.

X Q. 36. In case a party, prior to the time N. W. Green claims to have invented his process of making wells, had taken an iron rod and driven it into the earth down to and into a water-bearing stratum, and had then withdrawn that rod and inserted into the hole 1134 thus made a pipe or tube, and the water had flowed up through the tube and continued to be used as a well, would not such a well be equivalent to the claimed invention of N. W. Green in his original patent?

A. I think not; that would be a flowing well, not utilizing the pressure of the atmosphere.

X Q. 37. In your answer to X int. 29 you stated that the well there described would not legally anticipate Green's invention, provided it was not made public; now, how much publicity would it require to make such a well anticipate Green's invention?

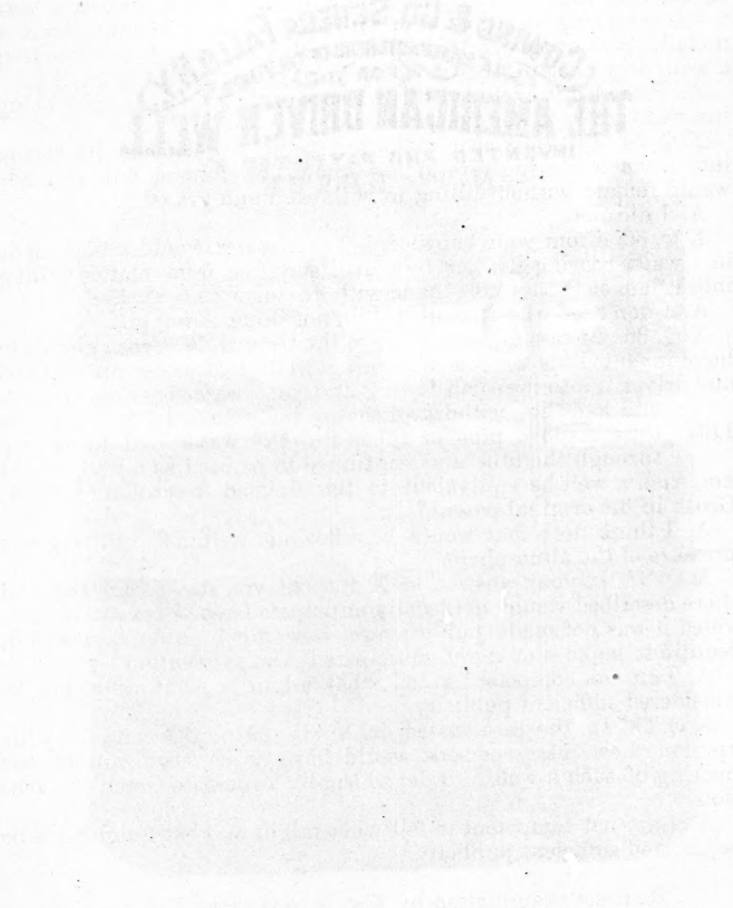
A. I am not competent to tell what might or what might not be considered sufficient publicity.

X Q. 38. In the case stated in X int. 29 please state, in your opinion, how many persons would have to be cognizant of the making of such a well in order to legally anticipate Green's invention.

A. I am not competent to tell what might or what might not be considered sufficient publicity.

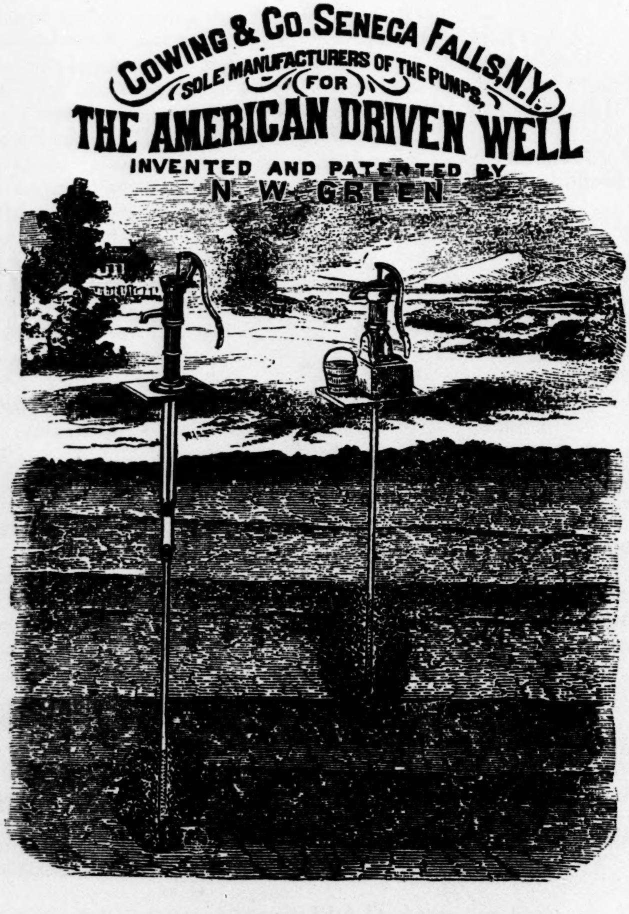
Redirect examination by Wm. D. Andrews, Esq.:

R. D. Q. 39. If, as is applied in the X Q. 26, that Hovey's principal claim is the pumping out of fine sand near the tube, is not such claim anticipated by the matter and cuts on page 17, Complainants' Exhibit "Cowing & Co. 1868 Circular?"


COWING & CO. SENECA FALLS
THE AMERICAN DRIVEN WELL

SECTIONAL VIEW OF THE WELL.

[illegible]


COWING & CO. SENECA FALLS, N.Y.
SOLE MANUFACTURERS OF THE PUMPS,
FOR
THE AMERICAN DRIVEN WELL
INVENTED AND PATENTED BY
N. W. GREEN

SECTIONAL VIEW OF THE WELL.

Illustrated in connection with the Pumps shown under Fig. 214 and Fig. 215, representing the Points as surrounded with gravel, from which the sabulous particles have been withdrawn, which is generally the case excepting where they terminate in quicksand.

U S Circuit Court
Dist of Iowa
Andrews et al
vs
Hovey.

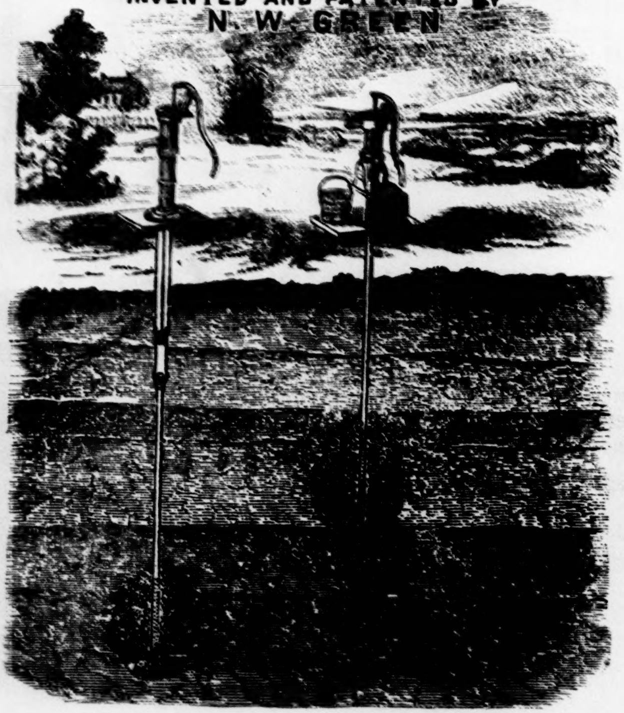
~~No. 2~~

Complts **Exhibit Cowing & Co. 1868 Circular.**
Dec 10 1879 E.C.W. Notary

COWING & CO. SENECA FALLS, N.Y.
(SOLE MANUFACTURERS OF THE PUMPS, FOR)

THE AMERICAN DRIVEN WELL

INVENTED AND PATENTED BY
N. W. GREEN



INVENTOR'S CERTIFICATE.

In order to secure the application of a superior Pump, I have adopted exclusively for the use of the AMERICAN DRIVEN WELL, the Pumps manufactured by COWING & CO., Seneca Falls, N. Y.

N. W. GREEN.

July 20, 1868. *Inventor & Patentee of the American Driven Well.*

1135–1142 A. I think it is.

R. D. Q. 40. Does it make any practical difference in the operation of a driven well whether, when the tube and its orifices are tightly in contact with the earth, the earth be in contact with the tube above the orifices for two, ten, or twenty feet, and will, in either case, the atmospheric pressure act as effectually as in the method discovered by Col. Green?

A. I think it would make no difference whether it was two, ten, or twenty feet; I think, in either case, the action of the atmosphere would be the same.

R. D. Q. 41. Suppose a tube an inch and a half diameter inserted in a three-inch hole, and having between its outer circumference and the inner circumference of the hole a free space of three-quarters of an inch in width, filled with water, extending down to the point of that tube, would that be an open well, or would it be a well as described in Green's invention?

A. It would certainly be an open well, and therefore not a well as described in Green's invention.

(Signed) T. C. THEAKER.

Adjourned by consent to to-morrow morning, Dec. 13, 1879, at 10 a. m.

(Signed) ERNEST C. WEBB,
Notary Public.

(Here follows diagram marked p. 1143.)

1444 E. C. W. The American driven well and Cowing & Co.'s pumps, with a sketch of the well, description of the pumps, instructions to well drivers, price list, &c., &c., manufactured at Seneca Falls, New York, United States of America, 1868; branch warehouse, 78 Chambers street, New York.

1145–1152 Entered, according to act of Congress, in the year 1868, by Cowing & Co., in the clerk's office of the district court of the United States for the northern district of New York.

Bradstreet press.

(Here follows diagram marked p. 1146.)

1153 In Circuit Court of the United States, District of Iowa.

WILLIAM D. ANDREWS *et al.* *v.* GEORGE HOVEY.

Depositions of witnesses produced, sworn, and examined in pursuance of the annexed stipulation, at Independence, in the county of Buchanan and State of Iowa, before me, S. Newman, a notary public in and for the said county, in a certain action now pending in the circuit court of the United States in and for the district of Iowa, wherein William D. Andrews *et al.* are complainants and George Hovey, defendant, on behalf of complainants.

JOHN Q. ROYCE, of lawful age, being produced, sworn, and examined on the part of complainants, deposed as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is John Q. Royce; age, 23; residence, Smith Centre, Kansas; attorney-at-law.

Q. 2. How long have you resided at Smith Centre, Kansas?

A. One year June 1st, 1880.

Q. 3. Where did you reside prior to your residence in Kansas?

A. At Independence, Iowa.

Q. 4. Are you acquainted with C. T. Kimball?

A. I am.

1154 Q. Did you at any time in 1879 obtain from the said C. T. Kimball an affidavit of any description?

A. I did.

Q. 6. Is the paper shown you, marked Exhibit "A," signed by C. T. Kimball, the affidavit, and was it signed by C. T. Kimball at the time it bears date?

A. This is the affidavit I took of Kimball and he signed it the day it bears date here.

Q. 7. The said affidavit is now offered in evidence and referred to as plaintiffs' Exhibit "A," on rebuttal.

Q. 8. At the time this affidavit was taken was it fully read over to the said Kimball or read by him?

A. Yes, sir; I read it all over to him, and my impression is that he read part of it himself.

Q. 9. Who prepared or wrote this affidavit?

A. I did.

Q. 10. Did you prepare it from statements made to you as to the dates and circumstances of putting down the well referred to by C. T. Kimball, and does that affidavit fully express what he stated to you to be facts at that time?

Q. 11. Was any other well talked about at the time that affidavit was made? If so, state what was said in reference to it.

1155 A. He spoke of a well being put there at the time of the building of the Presbyterian church, and that and this are the only wells he spoke of to me.

Q. 12. Which of these wells did he refer — when he made his affidavit? And state what was said in reference thereto by him and you; state fully.

A. The well to which this affidavit refers he spoke of as being the first well and the well over which there was so much controversy in this town. He said he could not remember whether it was 1862 or '63. I then asked him if he was certain it was after the fall of 1861. He said it was, and not later than the summer of '63, but was not positive whether it was '62 or '63, and so I put it in the affidavit here. He stated positively it was after the fall of 1861.

Q. 13. State whether or not you told Kimball at that time or any other time that you did not want his affidavit about the first well he ever saw of that kind; that you wanted his affidavit on the second well in order to confuse the date of putting down the first well and to help complainants in their suits.

A. No, sir; I never did.

Q. 14. I will ask you whether or not you stated to him at that time or at any other time that you did not care for his affidavit about the well put down in 1861 if he was positive the well was made in 1861?

A. No, sir; he stated positively to me that it was not put down in 1861.

Q. 15. Did you or did you not avoid reference to the well he claimed was first put down in Independence, or was all your conversation had in reference to the first driven well put down in Independence?

1156 A. I did not; our talk and his affidavit all referred to the first well, and that is the name he gave it.

Q. 16. What was said about the other well which you say was referred to, put down at the Presbyterian church, and when did he claim that was put down?

A. I don't think he gave any particular year, only that it was put down there when they were building the Presbyterian church.

Q. 17. State, as near as you can, what Kimball said to you at that time about who made this well referred to in the affidavit, and what he said, if anything, about the manner of its construction.

A. I think he told me the man came from New York, and he could not think of his name or had forgotten it; one or the other. He said the well was made by driving an iron tube into the ground, the tube being in pieces, and screwing them together as they went down, and then screwing an iron pump on the top of it.

Complainants rest.

On cross-examination by Jed. Lake, Esq., solicitor for defendant, witness testified:

X Q. 1. How long had you lived in Independence, Iowa, before you went to Smith Centre, Kansas?

A. I think I came here with my father in 1866; it might have been 1867; in the years '75, '76, and '77 I was away a part of the time.

1157 X Q. 2. Did you have your home in Independence, Iowa, from the time you came here, in 1866 or 1867, until you went to Smith Centre, Kansas?

A. Yes, sir; I did.

X Q. 3. When you was away, in 1875, '76, and '77, where was you stapping and what was you doing?

A. I was in Manchester, Iowa, awhile; in Clinton, Iowa, awhile; Marengo, Ill., awhile; in Webster City, Iowa, awhile, and West Union, Iowa, awhile. I was working at my trade in all the places all the time, except West Union; there I was studying law.

X Q. 4. What was your trade?

A. Cigar making.

X Q. 5. With whom did you study law at West Union, Iowa?

A. With Rickel & Clements.

X Q. 6. Was he the same Rickel who is now one of the solicitors for complainants in this action?

A. Yes, sir.

X Q. 7. Did he procure you to get this affidavit from C. T. Kimball?

A. Rickel, West and Eastman did.

X Q. 8. At the time they spoke to you about getting this affidavit did they show you a copy of an affidavit that he had made before this on the part of the defendant in this action?

1158 A. I don't know that he ever made an affidavit for defendant, except the deposition taken since this affidavit.

Witness wishes to correct his answer to interrogatory X 7, and states as follows:

Rickel, West and Eastman did not procure me to get the affidavit of any particular person, nor of C. T. Kimball, but to look up the evidence in this case; I don't think they knew that I had the affidavit of C. T. Kimball until I sent it to them at Cedar Rapids; I think they had gone home before I took it or knew anything about it.

X Q. 9. Did not Henry Rickel apply to you personally to look up this evidence?

A. I think Mr. Rickel is the one who spoke to me.

X Q. 10. Did not he give you a list of the persons that he wanted you to see?

A. I think not.

X Q. 11. How came you to go and see C. T. Kimball?

A. I think some one called my attention to the fact that Kimball remembered it later than 1861, and I went to see him.

X Q. 12. Who called your attention to the fact that C. T. Kimball remembered it later than 1861?

A. I don't think I can remember who did.

1159 X Q. 13. Where did you first see C. T. Kimball?

A. I am not positive; I think in front of Tom Tyson's store, in Independence, Iowa.

X Q. 14. Did you not go to Jesup to see him?

A. I never did.

X Q. 15. Did you see him more than once?

A. I think not on this business.

X Q. 16. Did not you draw up an affidavit which he refused to swear to, and then you drew this one?

A. No, sir; he never refused to swear to an affidavit for me that

I asked him to. I think when we were writing his affidavit that I made some mistake in it myself and it was laid aside, but on my own motion, not on his; the mistake was made before it was finished.

X Q. 17. Did not Kimball tell you, when you drew this affidavit, that he had made an affidavit for the defendant in which he described this well as put down in 1861?

A. No, sir; I think not.

X Q. 18. Did not he then tell you that there was a well put down there in 1861 and another in 1862 or 1863?

A. No, sir; he did not.

X Q. 19. Did not he tell you that you must not allude to the fact in this affidavit that it referred to the first well he knew of being put down near that place, or words to that effect?

A. No, sir; he did not.

X Q. 20. Then why did you avoid in this affidavit any allusion to the fact that this was the first well he knew of being driven there, and to the fact that he did not see a well driven there in 1861?

A. I did not avoid anything in the affidavit; I presume that the
reason that it did not allude particularly to its being the first
1160 well is the fact that it was supposed to be the only well driven
there prior to the building of the Presbyterian church.

X Q. 21. Who was present when you talked this matter over with C. T. Kimball before he swore to the affidavit?

A. I think no one. I think I took him one side and talked to him by himself, and then we went to Eastman's office.

X Q. 22. Who was present when you wrote the affidavit?

A. I don't remember of any one but Eastman.

X Q. 23. You say that this affidavit, Complainants' Exhibit "A," that has been shown you, is the affidavit that you wrote and that Kimball swore to, do you?

A. Yes, sir.

X Q. 24. Did you take the affidavits of other parties about that time for the complainants?

A. I did.

X Q. 25. Give the names of the persons whose affidavits you took about that time.

A. I took Simeon Hale's, Heman Morse's; I think, Samuel Parker's. I can't remember whether I wrote any more or not. I went after Mr. Cole and Mr. Hovey was there also; these last two were while Rickle was here.

X Q. 26. How long was you employed by the solicitors for complainants in getting up this testimony?

A. About a week.

X Q. 27. Did you come from Smith Centre, Kansas, to testify in this case?

A. I did not.

1161 X Q. 28. Since you have been here this time have not you
been looking up evidence in this case for the complainants?

A. I refuse to answer.

X Q. 29. Have not you been in the employ of the complainants in this case or their solicitors for some days past looking up evidence for them in Independence, Iowa?

A. I refuse to answer.

X Q. 30. Are not you in the employ of the complainants or their solicitors, and did not you come from Smith Centre, Kansas, to look up evidence here for them?

A. I refuse to answer.

X Q. 31. Was you subpœnaed to come here as a witness in this case?

A. No, sir.

X Q. 32. How came you to come here from Smith Centre, Kansas, to testify?

A. I think I answered that above, in cross-interrogatory 27, that I did not come here to testify.

X Q. 33. Was you not employed by the complainants or their solicitors to come here and look up some evidence for them?

A. I refuse to answer.

X Q. 34. Have not the complainants or their solicitors had you in their employ looking up evidence for them in this case?

1162–1167 A. I refuse to answer.

(Signed) JNO. Q. ROYCE.

Sworn and subscribed before me and in my presence by said John Q. Royce this 16th day of June, 1881.

[SEAL.] (Signed) S. NEWMAN,
Notary Public in and for Buchanan Co., Iowa.

1168 UNITED STATES OF AMERICA:

In the Circuit Court of the United States, District of Iowa. In Equity.

WM. D. ANDREWS *et al. vs.* GEORGE HOVEY *et al.*

On this 6th day of August, A. D. 1880, in the city of Minneapolis, Hennepin county and State of Minnesota, at the office of Edwin White, in pursuance to the notice hereto attached, R. W. Laing, Esq., appears for the complainants and Jed. Lake, Esq., appeared for defendants.

CHARLES BROWN, appearing as a witness on the part of the complainants, being first duly sworn, testifies as follows:

Q. 1. What is your name, age, and place of residence?

A. My name is Charles Brown; age, fifty-four, and reside in St. Paul, Ramsey county, Minnesota.

Q. 2. From what place did you go to Independence, Iowa?

A. Wyoming county, State of New York.

Q. 3. Did you go to Independence, Iowa, and at what time?

A. I think in the last of May or first of June, 1866.

Q. 4. On what business did you go to Independence at that time?

A. Selling the drive well.

Q. 5. Had you any partner in business at that time?

A. I had three partners.

Q. 6. What were their names?

A. Augustus Harrington, Mattison Keeney, and Melvin C. Chamberlain.

Q. 7. At this time you were at Independence how long did you remain there?

1169 A. I should think about three weeks.

Q. 8. At this time were there or had there been any driven wells in the town of Independence, Iowa?

A. Not that I know of; did not see any or hear of any. If there was I did not hear of any.

Q. 9. Will you give the date of driving the well?

Q. 10. Did you drive a well at Independence, Iowa?

A. Yes; I had it done.

Q. 11. Give the date of driving the well.

A. Somewhere from the middle of June to the first of July, 1866, as near as I can recollect.

Q. 12. How do you determine this date?

A. After I left Independence I bought a farm in the town of Warsaw, Wyoming county, in the State of New York, about the last of August in the same year. On the third day of July, 1866, I put down a well in the court-house yard, in the town of Vinton, Benton county, Iowa. There was a mare stolen, belonging to John Fargo, before I went to Independence in 1866. The owner, Mr. Fargo, found her at St. Cloud, Minnesota, and brought her back to Independence while I was there.

Q. 13. How was this well made?

A. Made of gas pipe in sections, with perforated holes to let the water into the pipe, with steel point on the lower end of said pipe. The point, I think, was eight — square, with a shoulder on it, so that it would not drive up into the tube, — was fastened to the pipe with a rivet. This pipe was driven with a sledge. We had it connected with screw couplings, in joints from four to six feet long.
1170 We first took one section and drove it down into the ground, and then screwed on another and drove that down, and then put on other sections until we reached water; we used from three to five sections; don't think we used a platform or staging at Independence.

Q, 14. Will you give exact location of this well?

A. It was on the west side of the river, about forty rods from the west end of the bridge, on the south side of Main street; it was then on a vacant lot, nearly opposite of a blacksmith shop, between the bridge and a brick building that was afterwards used as a hotel.

Q. 15. What kind of a pump did you use in connection with this tube?

A. We used a suction cistern pump, screwed onto the top of the pipe made at Lockport, New York; pump was of large size.

Q. 16. Who were present at the driving of this well?

A. Myself, Mr. Chamberlain, Mr. Harrington; a man by the name of John West, that we hired to do the driving; H. S. Cole, of Independence, was also present. There were many others present whom I did not know.

Q. 17. At what hotel in Independence did you stop?

A. We stopped at a house called the Burr House, a brick hotel kept by Burr Brothers.

Q. 18. Who stopped with you at this time at this hotel?

A. Mr. Harrington and West; that was all of our party that was there.

Q. 19. Had this hotel a basement?

A. It had a basement.

Q. 20. Do you remember how this basement was used?

A. My impression now is that it was a sort of a store-room.

Q. 21. While stopping at this hotel do you remember any particular parties to whom you showed this drive well material and to whom you explained how said material was used?

1171 A. I do; Mr. H. S. Cole; a man by the name of Brown—don't remember his first name now—to whom I sold some territory, and others whose names I do not remember.

Q. In what was this drive-well material contained as you brought it to Independence?

A. It was in a wooden box about 6 or 8 feet long, and about 10 inches wide and 12 inches deep.

Q. 23. While staying at this hotel where was the box placed and kept?

A. I cannot tell.

Q. 24. When this well was driven how was it regarded by the people of Independence and what comments were made upon it?

A. They seemed to think we had a good thing in this well and the general impression seemed to be favorable, but I cannot tell what language they used. Parties came to us and wished us to put down wells. We would take the names of those who wanted wells and say to them that the parties we sold to would probably put them down. The parties we did sell to we gave these names so that they could go to work.

Q. 25. How was this well regarded in point of novelty and utility?

A. Seemed to be regarded as a new way of getting water. People generally fell in with that way of making a well. They had no stone and thought this a good way of getting a well, and they would get no surface water in this way.

Adjourned from 12½ p. m. to 1½ p. m.

1172 The witness now, after adjournment, says he wishes to correct his last answer in this, that those who had no stone regarded it a good way of getting water, as above stated.

Q. 26. What became of this well?

A. I think I took it up about two weeks after it was driven, and either put it down about fifteen miles north of Independence or put it down at Vinton.

Q. 27. For what purpose was this Independence well put down?

A. We put it down for the purpose of showing to the public that way of getting water, so we could sell territory.

Q. 28. Did you sell any Iowa territory; if so, to whom and when?

A. We sold some Iowa territory to a man by the name of Houston; I think we sold him Buchanan county. Houston was a young man boarding at Burr's Hotel and was formerly from Wyoming county, New York. We sold also some Iowa territory to a man at Vinton, whose name I do not remember. My partner, Mr. Chamberlain, also, I think, sold some Iowa territory to John Fargo. I sold Black Hawk county, Iowa, to a man whose name I do not remember, but do remember the consideration. All these sales were made in the summer of 1866.

Q. 29. Did you sell any rights in Minnesota; if so, to whom and when?

A. We sold the right of the State of Minnesota to parties whose names I do not now remember, but it might have been Chandler, and the sale was made in exchange for lands and while I was at Independence.

Q. 30. Were other wells put down in Independence to your knowledge; if so, for whom and by whom?

A. This man Houston put down a well with my man West in a woodshed or back kitchen near and northwest of the brick hotel, west of the river; I think it was for a minister. He tried to put down a well east of the river and north of Main street and failed, having struck rock.

1173 Q. 31. Do you now remember the names of any parties present at the driving of the Independence well whose names you have not given?

A. I do not remember others I have not given, but there was a large crowd about there. Those that I remember were myself, Melvin C. Chamberlain, Augustus Harrington, John West, H. S. Cole, and John Fargo. Cole and Fargo assisted West in putting down the well. A nephew of H. S. Cole was also present and helped to put down the well.

Q. 32. Did all who were with you at Independence stop at the Burr House?

A. They did.

Direct examination rests.

Cross-examination by JED. LAKE:

X Q. 1. When did you first visit Independence, Iowa?

A. About June, 1866.

X Q. 2. Was there any one living there at that time that you were acquainted with before coming there; if so, who were they?

A. The Burrs, who kept the Burr House, H. S. Cole, and John Fargo; don't remember any others.

X Q. 3. Where was the Burr House situated?

A. In the east part of the town on the north side of Main street, near the court-house.

X Q. 4. Where did these Burr brothers live when you knew them before going to Independence?

A. At the village of Castile, Wyoming county, N. Y.

X Q. 5. When did they leave Castile for Iowa?

A. Do not know.

X Q. 6. When did you last know of their living at Castile?

A. Don't know the year they left there.

X Q. 7. When is the last year you now remember that they lived in Castile?

A. I can't tell.

X Q. 8. Do you know how long they had lived at Independence, Iowa, when you were there in 1866?

A. No.

1174 X Q. 9. Did you board with them all the time you stayed at Independence in 1866?

A. Yes.

X Q. 10. State, as nearly as you can, the time you stayed there in 1866.

A. About three weeks in all.

X Q. 11. During that time how many wells did you and your partners have put down at Independence, Iowa?

A. One.

X Q. 12. Was that well taken up and put back again at or near the same place while you were in Independence in 1866?

A. Not while I was there; this well was taken up, but not put back.

X Q. 13. What kind of a point was on this tube when you drove it into the ground? Describe it fully.

A. Solid steel point, a shoulder put on it and the outside the same size of the tube—the shoulder prevented it from driving into the inside of the tube—about six inches long, tapering from the shoulder down to a point nearly round or eight square.

X Q. 14. How was the pipe above this point?

A. It was in sections from 4 to 6 feet long.

X Q. 15. How did water get into this pipe?

A. We had perforated round holes drilled from the point up the pipe for about two feet; about three rows on the pipe the holes were about from $\frac{1}{16}$ to $\frac{1}{4}$ inch in diameter; they were about four inches apart, up and down the pipe, but not opposite to each other.

X Q. 16. Did not you use a point or pipe, the lower end of which has slots cut in it about $\frac{1}{4}$ inch wide and from about two to four inches long up and down the pipe?

A. We did not.

X Q. 17. Did you have such a point with you as above described?

A. No.

X Q. 18. After you had driven this pipe into the ground until it reached water, did you take a rod and put down inside the pipe and knock the point or plug out of the point?

A. No.

1175 X Q. 19. Was this point fastened into the pipe in any manner? If so, state how.

A. It was fastened by a rivet through pipe and point so it could not come out.

X Q. 20. How deep did you drive this pipe to make this well at Independence?

A. From 15 to 18 feet, as near as I can recollect.

X Q. 21. How long did it take you to make the well?

A. I do not remember, but think less than half a day.

X Q. 22. How far was it from the Burr House to where you put this well down?

A. I can't tell; one was on the east side and the well on the west side of the river.

X Q. 23. When you made this well did the men that did the driving have any saw horses or boxes to stand on?

A. I do not remember whether they did or not at this place; at one place we did.

X Q. 24. When was you next at Independence, Iowa, after you left there in 1866?

A. I went there in March, 1877.

X Q. 25. Do you swear that after 1866 you was not in Independence, Iowa, until March, 1877?

A. Was not there after 1866 until February or March, 1877.

X Q. 26. When you went there in 1866 you and your men took pains to advertise that you had this well territory for sale, did you not?

A. We did.

X Q. 27. Was John Fargo at home when you got there or was he in Minnesota after his mare?

A. He was at home.

X Q. 28. How long after you got there was it before he went to Minnesota?

A. I won't be certain about that; he might have been in Minnesota when I got there and got back while I was there; think he had; I saw the mare.

X Q. 29. What kind of horses was it he mortgaged to Trask to get money to go after this mare?

A. A pair of black colts he claimed he raised. All I know about the mortgage was what I was told.

1176 X Q. 30. Did your partner Chamberlain afterwards get these black colts?

A. I think he told me he did.

X Q. 31. What did Chamberlain do with them?

A. I think he let Trask have them back.

X Q. 32. Did you know the name of the blacksmith whose shop was across the street from where you put down this well?

A. If I knew it then I do not now.

X Q. 33. How far was the shop from the well?

A. I should think about 100 feet; a little east of north, I think, across the street.

X Q. 34. Was there any other building near this well? If so, state where and what it was.

A. There was a building right east of the well, about 100 feet distant; I think it was a small dwelling, but might have been a workshop.

X Q. 35. Was there any building west of this well? If so, how near to it?

A. Don't think there was; it seems to have been a vacant lot. There were some trees west and south of this well.

X Q. 36. While you were at Independence, Iowa, in 1866, did you know Thomas Sherwood?

A. I don't think I knew him then.

X Q. 37. Have you since then become acquainted with him?

A. Yes; about three years ago last February or March, 1877.

X Q. 38. Did you stop at the hotel that he kept when you were there in 1866?

A. No.

X Q. 39. Do you know C. T. Kimball?

A. Don't remember him.

X Q. 40. While you were at the Burr House, in 1866, did you propose to put a drive well in the basement of that house?

A. Don't think we did.

X Q. 41. Do you remember of showing this drive-well material in the basement of the Burr House.

1177 A. Do not; but some of our party may have done so; I don't remember of seeing it there.

X Q. 42. As I understand you, you were never at Independence, Iowa, until in June, 1866, and then staid there only about three weeks, and was not there again until about February or March, in 1877. Is that correct?

A. It is, as near as I can recollect.

Cross-examination rests.

Re-direct:

R. D. Q. 1. In driving this well at Independence, Iowa, in 1866, you might have used a platform supported on horses, might you not?

A. I might have done it.

R. D. Q. 2. Was the name of the blacksmith who kept the shop opposite this well Kays?

A. I don't remember.

R. D. Q. 3. You have stated there were some trees south and west of this well; was one of them known as the old oak tree?

A. Do not remember; but there were oak trees near this well, but I do not remember a name they gave any particular one.

R. D. Q. 4. Were some of these trees quite large?

A. They were.

R. D. Q. 5. May you not yourself have shown the driven-well material that was in the basement of the Burr House to several parties?

A. Might have done so, but do not remember of doing so.

R. D. Q. 6. Are you fully satisfied in your own mind as to this well in Independence, Iowa, being regarded as something entirely new and highly useful?

A. Yes.

R. D. Q. 7. Can you give a general description of Mr. Chamberlain at the time he was with you at Independence, Iowa, in 1866?

If so, give it.

1178–1195 A. Should think he was from 30 to 35 years of age; weighed about 155 pounds; straight built; good form; light complexion; very large blue eyes, larger than common; well-proportioned and medium height; square and high forehead; wore mustache and no whiskers; fine set of teeth; wore a blue coat, light pants, and light-colored Marseilles vest and a figured Marseilles shirt and a light-colored slouch hat, and was a fine comic singer, and had a head of fine curly hair.

Redirect examination rests.

Recross-examination resumed:

R. X Q. 1. How did you get into the basement of the Burr House, at Independence, Iowa, in 1866; where were the stairs?

A. We went in from the back-yard stairs outside the house.

R. X Q. 2. Do you now remember having your drive-well material in that basement?

A. I do not remember whether we had it there or not.

R. X Q. 3. Whose patent on the driven well were you selling in 1866?

A. It was known as "Chamberlain's improved reservoir well."

(Signed) CHAS. BROWN.

Sworn and subscribed to before me this 6th day of August, A. D. 1880.

[SEAL.] (Signed) WM. MULLIKEN,
Notary Public, Hennepin Co., Minn.

1196 ADELBERT BROWN, being produced, sworn, and examined on behalf of plaintiffs, testified as follows:

Q. 1. State your name, age, place of residence, and occupation.

A. My name is Adelbert Brown; age, 43; residence, Washington township, Buchanan county, Iowa; occupation, farmer.

Q. 2. How long have you resided in Iowa, where did you first reside after coming to Iowa, and how long did you reside there?

A. I have resided in Iowa since the first Monday in March, 1865; I resided in Washington township, about three miles west of Independence; I resided there till about the 20th of August, same year; then I came to this town.

Q. 3. State where you resided when you moved to Independence and how long you resided there?

A. I boarded with Mr. Elias Parker until about the 20th of August, when I came to town; after I came to town I resided upon a place I rented in the southwest part of town, known as the Bowker place.

Q. 4. How far was this Bowker place from block three, on the west side of the river, where the Presbyterian church now stands, and in what direction? State as near as you can.

A. It is just about half a mile from the Bowker place to the church and about three blocks west of due north.

Q. 5. Did you at any time see or know of a well being put down in Independence, Iowa, on the block on which the Presbyterian church now stands? If you did, state who made it, when it was made, state what kind of a well it was, and where it was located on the said block.

1197 A. I think there was a well put down there in the month of June, 1866; I could not state who made it; it was somewhere near the northwest corner of that block, somewhere nearly by, opposite Mr. Kay's shop; it was a well that is known as a "drive well;" I suppose it was an iron well.

Q. 6. What kind of a pump was used on this well and what was it attached to?

A. I could not state; I never examined the well at all—merely rode back and forth along the road.

Q. 7. What was the appearance of this well as you observed it? State as particularly as you can.

A. It was a pipe driven into the ground with an iron pump attached to it; it was driven or sunk; I did not see it placed; I only saw it as I was passing there two or three times a day.

Q. 8. State how near this well was to where you was in the habit of passing?

A. I should say it was from four to six rods.

Q. 9. Was there any one with you at any time while passing this well when it was made the subject of your particular attention? If so, state who.

A. Mr. Ira Hazzard was with me at one time; I stopped at Mr. Fonda's store, on the corner, as he (Mr. Hazzard) went and examined the well.

Q. 10. What time was this, as near as you can state? Give the year and month.

A. I think it was in June, 1866, three or four days after it was put down—may be not more than the next one.

Q. 11. Did you call the attention of Mr. Hazzard to this well, or did he first speak to you about it? And, if you first called his attention to the well, state, as near as you can, what you said to him.

1198 A. I called Mr. Hazzard's attention to it, that there had been a drive well put down; I think I said to him that wells were being put down by other parties.

Q. 12. What was Mr. Hazzard's business at that time?

A. Mr. Hazzard and his son were intending to put down wells in Buchanan and Black Hawk counties, as I understood them.

Q. 13. What was his son's name?

A. Robert S. Hazzard.

Q. 14. When you stated to Ira Hazzard that other parties were putting down wells, did you mean parties other than Hazzard and his son?

A. I did.

Q. 15. Did this well attract the attention of the public as a new kind of well or a novelty?

A. It seemed to.

Not being able to complete the taking of this deposition, I have adjourned until 1.30 p. m. of to-day, at this place.

1.30 P. M.

Examination of ADELBERT BROWN resumed:

Q. 16. State, as near as you can, how generally this well was used and how it was regarded by the public as differing from other wells then in use.

A. I don't know as it was used at all; I saw no one carrying water from it; saw people standing round, and occasionally
1199 saw a man try the pump and draw water from it; I should
say it was considered more as a novelty than anything else; I think it was regarded so.

Q. 17. Did you, at that time, know of a well of that kind having been put down on or near that same block prior to that time?

A. I did not.

Q. 18. Was that the first driven well that you ever knew of or heard of having been put down in Independence, Iowa?

A. I think it was.

Q. 19. When you state, in answer to interrogatory number 16, that you "don't know as it was used at all," please explain how you mean to be understood by that expression.

A. All I wish to say is that I was simply passing back and forward with my team; the only way I knew of it being used was by seeing parties pump water out on the ground, trying it.

Q. 20. State, as near as you can, how long that well remained there.

A. I could not say.

Q. 21. Were you, about that time, engaged in making wells of this kind, or did you assist any one to make a well, or wells, near Independence? If you did, state who you assisted, state how near to Independence it was, and state particularly how such well was made, if any such was made?

A. I did assist in making a well of that kind three miles west of Independence, on the premises owned by Elias Parker; I assisted Robert S. Hazzard; there was a steel point attached to the lower end of a gas-pipe and driven in; they punched a hole with a bar in the first place; I was not there to know whether they drove it or not; when I came back to the place he had the pipe down; I helped draw the pipe out with a lever and chain and assisted in clearing the sand out of the pipe; we then put on a patent point that he had and placed the pipe back and attached a pump and com-
1200 menced to pump water and sand, or sand and water; the
pipe filled with sand; we had it to take up again; we cleaned it of sand, took off the point and had it covered with perforated tin, took it back and placed it on the pipe, put it down, and had no more trouble with it.

Q. 22. State who first suggested putting the perforated tin onto this point.

A. I did.

Q. 23. Was there any wells, to your knowledge, put down in Independence about that time by Ira Hazzard or his son, R. S. Hazzard?

A. Not to my knowledge.

Q. 24. Was this putting on of the perforated tin onto the point an original idea with you or did Hazzard claim that he had used that appliance for the purpose of keeping out sand before?

A. It was original with me; he never claimed that he had used it before; that was his first well. He thought he could get a well if he could stop the sand.

Q. 25. Did this tube to which the pump was attached that you have heretofore testified to as being located on the Presbyterian church block, appear to be tight in the ground?

A. I never examined it; could not say.

Q. 26. Did you discover any earth around the well that would indicate that any had been removed in making the well?

A. I could not say whether any was taken out or not; I did not discover any to my knowledge.

Direct rests.

On cross-examination the witness testified as follows:

1201 Subject to the objections heretofore made and without waiving rights under the same, the counsel for defendant cross-examines this witness:

Cross-interrogatory No. 1. Where did you reside before you came to Iowa in 1865?

A. In Eaton, Madison county, New York.

X Q. 2. How long did you reside there?

A. About 17 years, I think.

X Q. 3. Was you ever in Independence, Iowa, before 1865?

A. I was.

X Q. 4. When, and how long did you stay?

A. I came about the 1st of December, 1859—passed through here; stopped at Littleton until the 25th of December; went to Osage; returned back to Independence and staid near here until some time in March, 1860; was here occasionally; then I returned to Central, New York.

X Q. 5. Prior to the time you came here in 1859 had you been in Independence, Iowa?

A. I had not.

X Q. 6. After you left here in 1860 did you come back again to Independence before 1865?

A. I did not.

X Q. 7. If a well had been put down in Independence, Iowa, in 1861, would you have known of it?

A. Not personally; don't know that I would.

X Q. 8. When you first saw this well that you say was on the N. W. corner of the block, where the Presbyterian church now is, had you seen Hazzard put down a well of that kind?

A. I had.

X Q. 9. How many wells had you seen him put down?

A. Two.

1202 X Q. 10. For whom were they put down?

A. He put one down for Elias Parker and one for myself.

X Q. 11. Had either of the Hazzards put down a well at Independence, Iowa, at that time?

A. They had not, to my knowledge.

X Q. 12. With whom did they stop when they were here?

A. They stopped with myself and Elias Parker; sometimes at one place, sometimes at the other.

X Q. 13. Were they related to you in any manner? If so, state how.

A. Ira Hazzard is an uncle of mine; his son is a cousin.

X Q. 14. While they were here did they talk with you frequently and freely about what they were doing?

A. They did not.

X Q. 15. Did not they tell you when they succeeded in making a well?

A. They only drove two—one at my place and one at Parker's. I knew it without telling. They did not tell me.

X Q. 16. Were those two the only wells they made in 1866 while stopping at your place?

A. They made other wells, but did not make others while stopping at my place. I heard of their making other wells at Raymond, Black Hawk county, Iowa.

X Q. 17. Had you heard of this kind of well before you saw the Hazzards make the one at Elias Parker's?

A. I had.

X Q. 18. When did you first hear of this kind of well being made?

1203 A. In the summer of 1865, some time, I could not state when, my father wrote me they were putting them down in the town of Hamilton, Madison county, State of New York, and he would procure one and send it to me if I wanted it.

X Q. 19. In making this well at your place, how did the Hazzards make it? State particularly.

A. I think, in the first place, they dug down three feet; then drove a bar down as far as they could; then inserted the pipe, put on the heading tool and drove or forced it down with a sledge and block—drove it down the depth they wanted; then drew the pipe, cleaned out the sand, and put on the screen as they did in the Parker well. After they got the screen on they put the pipe back in the hole, put on the pump, and went to pumping sand and water.

X Q. 20. How long did they pump before the water was clear?

A. Should say something like two weeks. We did not get a bit of water under that time; did not get a stream larger than a pipestem at first.

X Q. 21. How long did it take to fill the pipe with sand before they put on the perforated tin screen, while making the Parker well?

A. From five to twenty minutes' pumping; then it would fill tight so no water would come. I should say about that time.

X Q. 22. How many times did they try the Parker well by pulling up the pipe and cleaning out the sand before they put on the tin screen?

A. I could not say; perhaps a dozen times; might have been twenty times. We drew it a good many times; worked at it a day and a half in hopes to get coarse gravel, so as to make a filter.

1204 X Q. 23. When you put the pipe in after the second time you pulled it out, did they have to drive it to get it down to its place?

A. I don't think they did.

X Q. 24. How many times did they take out the pipe at your place before they left it for good?

A. I could not say, sir.

X Q. 25. Was you there while they were making the well?

A. Occasionally; I was not there all the time; I was hauling lumber for my house; they were some two days and a half from the time they commenced it in getting it done.

X Q. 26. What kind of a point did they have to make these wells with?

A. A steel point; I suppose a little larger than the pipe, I think—not certain as to that.

X Q. 27. How was the pipe fixed above the point?

A. It was perforated with small holes to let the water in—that is, the upper part of the point, some four feet long.

X Q. 28. What was the size of these holes?

A. About one-fourth of an inch.

X Q. 29. Did they use a point with slots cut in the pipe above the plug in the end of pipe?

A. They did not use that point; the point they used was cast with openings cast in it; two or three rows of slots, about six inches long, one-quarter inch wide; it was solid at the bottom with the slots above the point.

X Q. 30. In what part of the process of making the well did they use this point?

1205 A. They did not use it until the well was made; they put this point on covered with perforated tin, to admit the water, the last time of putting down the pipe.

X Q. 31. Was this the kind of point they used in Elias Parker's well before you suggested to them to cover it with tin?

A. It was.

X Q. 32. Whose patent was it?

A. I could not state; the letters patent were on the bottom, but I could not state who the patentee was.

X Q. 33. Had not you heard of wells being made, or attempted to be made, by driving a tube into the ground until it reached water before the summer of 1865?

A. I saw a tube drove, I think, in 1862 or '63 for the purpose of getting an artesian well or flowing well, but it proved a failure, and was given up by the party.

X Q. 34. Where was this tube driven?

A. In the town of Eaton, Madison county, State of New York.

X Q. 35. By whom was it driven?

A. Some of A. N. Wood & Co.'s hands.

X Q. 36. What did they claim that they could do by driving this tube into the ground?

A. The claim was—I believe it was an experiment—that they could obtain water; I don't know as they made any claim; it was an experiment.

X Q. 37. Did they obtain water in the tube?

A. I do not recollect whether they did or not.

1206 X Q. 38. How do you fix the date of this experiment?

A. I could not fix the date correctly; I was sick at the time, and was in town most of the time; it was some time while I was there.

X Q. 39. Do you know how this well was made that you saw at Independence, Iowa, in 1866?

A. I do not.

X Q. 40. How long do you remember of its being there?

A. I don't recollect how long it was there.

Cross-examination rests.

On redirect examination witness testified as follows:

1st Redirect. When the pipe in the Parker well was placed in position the last time you say you think they did not drive it; please state how they got it in its place.

A. The ground where that well was put down was sand; I think only about 16 feet of pipe used to water. We pulled it up and put it down till the hole was large enough to admit the pipe running right down in our hands, so we could force it down with our hands.

(Signed) ADELBERT BROWN.

State of Iowa, *Buchanan County:*

Sworn to before me by Adelbert Brown this 9th day of August, 1880.

[L. S.] (Signed) H. W. HOLMAN,
Notary Public.

1207 George W. Burr called.

The said George W. Burr, being duly sworn and examined on the part of plaintiffs, testified as follows:

1st Interrogatory. State your name, age, place of residence, and occupation.

A. My name is George Washington Burr; age, 49 years; residence, Westbury township, Buchanan county, Iowa; occupation, farming.

Q. 2. When did you first move to Independence?

A. July, 1865.

Q. 3. What business did you engage in at that time?

A. Driving hack from the hotel to the depot and back.

Q. 4. From what hotel; where was it situated, and who kept it?

A. It was from the National Hotel or Burr House; it had two names at that time; it was on the corner of Main and Court streets, in Independence; it was kept by Burr & Lowe.

Q. 5. Who was the Burr that kept the house?

A. It was C. S. Burr, a younger brother; Lowe was a brother-in-law.

Q. 6. Who kept the house previous to this firm, and what was it called?

A. I think it was kept by Sherwood; it was called the White House.

Q. 7. How long did you remain in this hotel in any capacity?

A. I remained there until June, 1870; from July, 1865, till June, 1870.

Q. 8. During that time do you remember of any parties stopping at this hotel having for sale a patent for making wells of any kind or any part thereof?

A. Yes, sir; there was some parties stopped there.

Q. 9. State who they were and when they were there, as near as you can.

A. Brown, Chamberlain, and Harrington; I think they had a man with them to do the work; I don't remember his name; 1208 they were there some time in 1866; I think they came some time in June and remained two or three months; it might not have been as early; I think they were there in September, and that they were there three or four months.

Q. 10. Do you know the full names of Brown & Chamberlain?

A. Brown's name was Charles J.; could not say what Chamberlain's name was.

Q. 11. Do you know of their making wells in Independence? If so, state where.

A. On the west side of the river; I think on the block near the Presbyterian church.

Q. 12. What year was this that they put down the well, and state the month, if you can?

A. It was in 1866; I don't know as I can state the month; it was soon after they came here; they put it down as a sort of an advertisement to show what they could do.

Q. 13. Did you see them make this well?

A. No, sir; I don't think I did; think I was passing by there as they was to work at it.

Q. 14. What did they have with them, if anything, at the hotel?

A. They had some pumps, tubing, and tools used for putting down the tubing.

Q. 15. Where did they keep these things?

A. In the basement or cellar of the hotel.

Q. 16. What did they bring these pumps and pipes to the hotel in, or were they loose and carried in separately?

A. I think they had a sort of a box or tool box that they brought them in.

Q. 17. About how long was this box?

A. I could not say; have no recollection about the length of it; it was a long-sized box.

Q. 18. Were you acquainted with C. T. Kimball at that time?

A. Not much acquainted with him; I saw him nearly every day; quite often at that time.

Q. 19. Where did you see him most frequently?

A. At the office of the hotel.

1209 Q. 20. Do you know what his occupation was at that time?

A. I do not.

Q. 21. If you know what his general business was immediately prior to that time and subsequently, state it.

A. I don't know as I know; he was around ready for any chance for making money; if any one came along with a job he was ready for it.

Q. 22. Was he or was he not known at that time and subsequent as a patent-right dealer?

A. I could not say at that time; he was called one after that; was not well enough acquainted with him at that time to know much about him.

Q. 23. Did these men make a well in the cellar of the hotel, or was there any talk about their making one in the cellar adjoining this basement? If there was any such conversation, please state it, as near as you recollect.

A. They did not make one; they had some talk of it; I don't remember the conversation.

Q. 24. Did you know Thomas Sherwood during the time these men were there?

A. Yes, sir; I saw him.

Q. 25. State whether or not he was frequently round the hotel during the time Brown and the other men were stopping there.

A. He was there occasionally.

Q. 26. What business was he engaged in at that time?

1210 A. I could not say now whether he was in the livery business at that time or not; I think he was, to the best of my recollection, but won't be positive.

Q. 27. At the time you were passing and saw them at work at this well, state, as fully as you can, all the parties who were present at that time.

A. I could not say who was present.

Q. 28. Can you state the name of any individual that was there at that time?

A. No; I could not; there was a crowd there; I took no particular notice; I was passing by.

Q. 29. Had you at that time seen or heard of any wells similar to the one put down by Brown being put down in Independence, Iowa?

A. No, sir.

Q. 30. How was this well regarded at the time, with reference to other wells then generally in use?

A. If they got one to work all right they was considered a nice thing.

Q. 31. How was it with reference to being a novelty or curiosity and attracting the attention of the public?

A. It attracted some attention; it was considered a novelty.

Direct rests.

On cross-examination the witness testified as follows:

X Q. 1. When you were here in July, 1865, how long had Burr & Lowe been keeping this hotel?

A. They came here early in the spring, I think; I am not sure whether they came in 1864; I think it was in the spring of 1865.

X Q. 2. Do you know who kept this hotel before they went in there?

A. I think Sherwood kept it.

X Q. 3. How came you to think Sherwood kept it?

1211 A. My father bought the hotel of Sherwood; I think he was keeping there when he bought it.

X Q. 4. Was you ever at Independence while Sherwood kept that hotel; if so, when?

A. No, sir; I was not.

X Q. 5. Then is it not a fact that all you know about Sherwood keeping the hotel is what some one has told you?

A. Yes, sir; that is all I know about it.

X Q. 6. Did you ever see Thomas Sherwood talking with either Brown, Chamberlain, or Harrington about this well of theirs?

A. No, sir.

X Q. 7. Is it not a fact that while this Brown, Chamberlain, and Harrington were stopping at this hotel, in 1866, Thomas Sherwood was seldom there?

A. He was there occasionally—frequently, I think.

X Q. 8. How frequently was he there?

A. I think he was there nearly every day, back and forth.

X Q. 9. Did he board there?

A. I think not.

X Q. 10. Do you not know that he did board there in 1866?

A. I could not say that he did or did not; I think he kept house in town here, but got meals there occasionally.

X Q. 11. In what part of town did he keep house?

A. I think he was on Court street.

X Q. 12. Which way from the hotel?

A. He was north of the hotel, I think.

X Q. 13. How far from the hotel was his house?

A. I think it was half a block.

X Q. 14. On which side of the street?

A. On the west side.

1212 X Q. 15. Do you mean that he lived in the same block in which the hotel is situated?

A. Yes, sir; that is my impression.

X Q. 16. In which house from the barn of the hotel did he live?

A. The house north the barn.

X Q. 17. When he went past the hotel did he usually stop in the office and stay awhile?

A. Occasionally.

X Q. 18. Where was his livery stable located that you say he had at that time?

A. I don't know; don't remember where his stable was located.

X Q. 19. Was Mrs. Sherwood frequently at the hotel during the year 1866?

A. I don't know that she was.

X Q. 20. When Brown, Chamberlain, and Harrington came there were you acquainted with them?

A. No, sir.

X Q. 21. Had you ever known either of them before that; if so, which one?

A. I had seen Mr. Harrington, but neither of the others.

X Q. 22. Where had you seen Harrington?

A. I had seen Mr. Harrington at Castile, Wyoming county, New York.

X Q. 23. When did you see him there?

A. I think it was in the summer of 1862.

X Q. 24. What business was he in at that time?

A. I don't know, sir.

X Q. 25. When these men came to the hotel, in 1866, did they take pains to advertise their business, and that they had drive wells to sell?

A. They did not seem private about it; they did not seem afraid to let folks know they had drive wells to sell.

X Q. 26. Did they try to sell them?

1213 A. They was selling territory, I believe.

X Q. 27. Did they all come there at one time?

A. I would not be positive whether they all came at one time or not; I think Brown and Chamberlain came, and Harrington came a week or so after.

X Q. 28. Did they all stop at that hotel?

A. Yes, sir.

X Q. 29. Did they all go away at the same time?

A. No, sir; I think not.

X Q. 30. Who went first and who went next? Give the order of their going.

A. I think Brown went first, but would not be positive whether Chamberlain went at the same time or not; my impression is Brown and Chamberlain went together.

X Q. 31. How long did Brown stay at the hotel?

A. I think from three to four months; that is my impression; think the rest went a short time after he did.

X Q. 32. During the time Brown stopped there did he go away to other places and come back again?

A. I think he was away—back and forth.

X Q. 33. How many times did he go away and return?

A. I don't know, sir.

X Q. 34. Did he take his drive-well material with him when he went away each time?

A. I don't think he did.

X Q. 35. How much material did they have with them?

A. I don't know how much they did have; could not say.

X Q. 36. How many boxes did they have with material in?

A. I could not say.

X Q. 37. Did they have more than one box?

A. I don't remember whether they did or not?

X Q. 38. After they put down this well on the west side of the river did they take it up and bring the material back to the hotel?

1214 A. I could not say positive whether they did or not; my impression is they did.

X Q. 39. Did they take all of their material and boxes over to where they made the well at the time they made it?

A. I don't know whether they did or not.

X Q. 40. How did they get these boxes into the basement—where were the stairs they were taken down by?

A. There was one in the hall and one on the north side of the house to get into the basement; I don't know which they were taken down by; I did not see them taken down.

X Q. 41. Did you see this material in the basement; if so, how long after these men came there?

A. I seen it in the basement; I don't know how long after they came.

X Q. 42. How long after they came there before they made the well on the west side of the river?

A. I could not say how long it was after they came; my impression is it was not over a week or two at the outside.

X Q. 43. Was it not within a day or two?

A. It might have been; I could not say.

X Q. 44. Did you see C. T. Kimball at the hotel after these men came and before this well was put down?

A. I could not say whether I did or not.

X Q. 45. Did C. T. Kimball board at the hotel while these men were there?

A. I don't know whether he did or not; my impression is he did not.

X Q. 46. Did his wife, Mrs. Kimball, board there while these men were there?

A. Not to my knowledge.

X Q. 47. Did she come to the hotel any at that time?

A. Not to my knowledge.

X Q. 48. Did you know of Kimball talking with these men about their well while they stopped at the hotel?

1215 A. No, sir; I don't remember. I don't think I was acquainted with him at that time.

X Q. 49. Do you remember of seeing Kimball at the hotel while these men were there?

A. I don't remember now.

X Q. 50. Has any one connected with the prosecution of this suit talked with you about your evidence in this case?

A. No, sir; not about my evidence.

X Q. 51. Has not Mr. West, the attorney present, talked with you about what you would swear to, if called as a witness?

A. No, sir.

X Q. 52. Has he had any conversation with you in regard to this matter?

A. Yes, sir.

X Q. 53. Now, state what he said to you about it.

A. He asked me some questions; I cannot repeat them; was tired, hungry, and cross. I did not think he would get anything that would do him any good. I admit that I did not treat him very well.

X Q. 54. When was it that Mr. West asked you these questions?

A. I think it was a week ago last Tuesday.

X Q. 55. Did not John Q. Royce talk with you about this matter?

A. He did not.

X Q. 56. Had not you seen or heard of these driven wells before the time you say Brown & Co. came to the hotel in 1866?

A. No, sir; I don't remember that I ever did.

Cross rests.

Redirect:

R. D. Q. 1. Have you any date by which you can tell certainly when Brown came to your hotel and when he went away, or do you know of any record or register by which the dates could be determined?

A. I might find out. I don't now know where the register is.

1216 R. D. Q. 2. Do you mean, in answer to the question propounded to you, about taking the pump and tubes back to the hotel, that you think they took the well up and took it back or that they simply took their box back with the tools and material that was left?

A. I could not say.

(Signed) G. W. BURR.

Subscribed and sworn to before me by George W. Burr this 9th day of August, 1880.

[SEAL.] (Signed) H. W. HOLMAN,
Notary Public.

Not being able to complete the taking of testimony on this day, I adjourned until 8.30 a. m. of August 10th, 1880.

1217 AUGUST 10TH, 1880.

Parties appear by their respective counsel as before.

Examination of witnesses resumed.

THOMAS H. TYSON, of lawful age, being duly sworn, testified as follows:

1st Interrogatory. State your name, age, place of residence, and occupation.

A. My name is T. H. Tyson; age, 49; residence, Independence, Iowa; occupation, grocer.

Q. 2. Have you before testified in this case as a witness for defendant?

A. Yes, sir.

Q. 3. Did you in a suit on or about April 26, 1880, before S. Newman, notary public, and — the respective counsel were present—namely, A. R. West, for complainant, and Col. Jed. Lake, for defendant—testify on behalf of defendant in a driven-well suit?

A. I did.

Q. 4. Was that case one brought by the complainants in this case against A. Tyler Cross?

A. I don't know.

1218 Q. 5. Did you, in the examination referred to, in April, 1880, in reply to questions concerning a well on block 3—Stoughton and McClure's 2d addition to Independence, Buchanan county, Iowa—give the following answers to the following questions: Cross-question No. 5 was, "What do you know of the parties who put it down from any information you have received? State particularly;" and did you answer, "Don't know anything of the parties any more than what I saw of them when they were putting the well down; think they represented themselves from Buffalo, New York?"

A. Those were my answers to the question.

Q. 6. Cross-question No. 6 was, "How many of them was there?" and did you answer, "Two?"

1219 A. I think I did.

Q. 7. Cross-question No. 7 was, "Describe these men as near as you can," and did you answer, "One was a tall man, was middle-aged, dark complexion, rather large; the other, my impression is, was small or medium sized?"

A. That was my answer.

Q. 8. Cross-question No. 8 was, "Were these men strangers in Independence at that time?" and did you answer, "Yes, sir?"

A. Yes, sir.

Q. 9. Cross-question No. 14 was, "Was you present during the whole time of the construction of this well?" and did you answer, "I was there during the time they were putting it down helping to put it down?"

A. Yes, sir.

Q. 10. Cross-question No. 15 was, "Who was present during the time this well was being constructed that you can now name?" and did you answer, "There was but one person I could name, that was John Fargo; he now lives close to Buffalo, New York, and was engaged in farming, the last I heard of him?"

A. I did.

Q. 11. Cross-question No. 16 was, "Was this well put down
1220 for actual and common use, or as an experiment or advertisement?" and did you answer, "I think it was put down as an advertisement?"

A. I did.

Q. 12. Cross-question No. 23 was, "Who procured you to assist in putting in this well?" and did you answer, "I was not procured by any one; I was helping for the novelty of the thing?"

A. I did.

Q. 13. Cross-question No. 24 was, "Then it was regarded as a novelty, was it?" and did you answer, "It was?"

A. Yes sir.

Direct rests.

On cross-examination witness testified as follows:

1st Cross-interrogatory. Did you, in that same examination, testify as to another well that was put down near the same place at a different time?

1221 A. I think I did.

X Q. 2. Which well did the questions and answers referred to in the direct examination relate to—the one put down first or second in point of time?

A. The first.

X Q. 3. When was that first well put down?

A. In 1861.

X Q. 4. When was the second well put down?

A. I think 1866.

1222 X Q. 5. Did you see the men who put down the second well?

A. I did not.

X Q. 6. Did you see them while they were staying at Independence, Iowa?

A. I think not.

X Q. 7. Have you since seen them?

A. Not to my recollection.

X Q. 8. How many men were here with this first well, about which complainants' counsel have asked you?

A. My recollection is there were two.

X Q. 9. If there had been four strangers there taking part in making this first well would you have noticed the fact?

A. I think I should.

X Q. 10. In asking you the questions that were put to you by counsel for complainants, did he read them from a paper purporting to be a copy of your evidence?

A. He did.

X Q. 11. Before you came upon the stand had he shown you these questions and answers?

A. He had not.

1223 X Q. 12. Did Mr. West cross-examine you when you was called as a witness in the case of Andrews *et al.* *vs.* Geo. Hovey?

A. He did.

X Q. 13. Was it the same person who cross-examined you in testifying before S. Newman in April, 1880?

A. I think it was.

X Q. 14. Did you know of a third well being put down on the same block where these two were put that you have testified about?

A. Yes, sir.

X Q. 15. When and by whom was that third well put down and for what purpose?

A. It was put down in 1868 by Mr. Hovey for the benefit of the Presbyterian church in constructing the building.

X Q. 16. In the construction of the well that you say was made by these two men, at the time you was asked about it by complainants, are you sure that John Fargo was present?

A. My impression is that he was.

X Q. 17. Why and how have you got that impression?

A. I could not tell.

1224 X Q. 18. Was it not because when he lived here he was usually around on the streets where anything was going on?

A. He was usually round where anything was going on; I could not say that that is what I form my impression from.

X Q. 19. In your testimony before S. Newman in April, 1880, did not you testify that you was not positive as to John Fargo being there, but you thought he was there?

A. I could not recollect the language used at that time.

X Q. 20. When counsel for complainant read to you what he claimed was the questions and answers put to you then, could you recollect the language except for his reading it to you?

A. Not all of it, I could not.

X Q. 21. Did you recollect that he read it precisely as it was asked and given at the examination before S. Newman?

A. In the main I did.

X Q. 22. How was it as to all of it?

A. I supposed the answer was sufficient; balance of it I don't know.

1225 X Q. 23. Then you are not sure that in all of the questions he read them as they were asked and given, are you?

A. No.

Cross-examination rests.

(S'g'd) THOMAS H. TYSON.

Subscribed and sworn to before me and in my presence by Thomas H. Tyson this 10th day of August, 1880.

[SEAL.] (Signed) H. W. HOLMAN,
Notary Public.

1226 J. R. KAYS produced.

J. R. KAYS, of lawful age, being first duly sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is J. R. Kays; age, 45; residence, Hazelton township, Buchanan county, Iowa; occupation, blacksmith.

Q. 2. Where did you reside before you went to Hazelton?

A. At Independence, Iowa.

Q. 3. When did you first come to Independence, Iowa, and how long did you reside there?

A. I first came to Independence about the first of September, 1865, and stayed two days. I moved here the 24th day of October, 1865; resided here till March 1st, 1868.

Q. 4. What part of Independence did you reside in during that time?

A. About two months at the east end of Main street and the balance of the time on the west side of the river, on lot No. 5; also 19 feet of lot 6, block 22, Stoughton & McClure's second addition to the city of Independence.

Q. 5. What business were you engaged in during the time you resided on block No. 22?

A. Blacksmith business.

Q. 6. Where was your shop located?

A. On the southwest corner of lot 5, block 22, Stoughton & McClure's second addition to Independence, Iowa.

Q. 7. Did you own this lot or did you rent it?

A. I owned it.

Q. 8. What, if anything, was on the lot when you bought it, in the way of improvements?

A. There was an old house on lot No. 5.

Q. 9. State, if you please, as near as you can, the size of the house, number of stories high, and how it was arranged for use as to rooms, and state what it was designed for—whether dwelling or otherwise, and of what material.

A. I should judge it was 16 by 22 feet, one story high; consisted of two rooms and a lean-to on the north side; made out of native lumber; it was occupied as a dwelling.

1227 Q. 10. What part of the property that you have described was this house located on?

A. On the extreme southwest corner of lot No. 5.

Q. 11. After purchasing the lot what use did you make of this building, if any?

A. I bought the man out that was living in it and turned it into a blacksmith shop.

Q. 12. When did you buy this property?

A. December 12, 1865.

Q. 13. How long after you bought this property was it before you turned this building into a blacksmith shop?

A. Just 26 days.

Q. 14. Did you ever see or know of a driven well being made near your shop? If you did, please state particularly where it was, who made it, if you know, and how it was made.

A. I do know of a well being made; it was on the northwest corner of the lot, directly south of my shop, opposite; I don't know who made it; it was made by driving a tube into the ground; after it was drove into the ground there was a pump attached to it.

Q. 15. Did you see the parties who made this well?

A. I did.

Q. 16. How many were there and where did they claim to be from, or reside?

A. There was two in number, and I am not positive but there was three; I heard no claim made by them as to their residence.

Q. 17. Describe these parties, as near as you can.

A. I have no particular remembrance of any of the parties, their countenance or form.

Q. 18. About how long after you occupied this building as a blacksmith shop was it that this well was put down?

A. I cannot say whether it was the first summer or the second.

Q. 19. Did you have any dealing with these men? If so, state what it was.

A. I stored their tool box for them in my shop, and did some repairing.

1228 Q. 20. What kind of a box was this that you stored for them? Give the size, as near as you can recollect.

A. It was a rough, strong box, perhaps six or seven feet long, about 20 or 22 inches wide; the depth I have no recollection of; I think it was wider than it was high.

Q. 21. Was this box used to contain the tubes and well material or any part thereof?

Q. 22. What did this box contain?

A. Tongs, chains, bars and springs.,

Q. 23. Are you acquainted with the defendant in this case, George Hovey?

A. I am, somewhat; yes.

Q. 24. Were you acquainted with him at the time this well was put down?

A. I was not.

Q. 25. Did you know any of the parties that assisted in putting down this well?

A. I did not, at that time.

Q. 26. Do you know or can you name any one who was present during the making of that well?

A. I cannot, positively.

Q. 27. How long did the well remain there?

A. I cannot tell; perhaps four or five months.

Q. 28. Were there other wells of this kind in use in Independence at that time or wells called driven wells, to your knowledge?

A. None, to my knowledge.

Q. 29. Did this well attract the attention of the public to any considerable extent, and how was it as to being regarded a new thing or novelty?

A. It seemed to attract considerable attention; it was a novelty to me, and was regarded by the public as a good thing, to the best of my knowledge from hearing the expression of the people.

1229 Q. 30. Had you, prior to seeing this well, ever seen or heard of a driven well before that time?

A. I never had.

Q. 31. What became of this well, finally?

A. Some parties came there and took it up and took it away. I don't know what they did with it. I do not know who took it away.

Adjourned till 2 p. m.

2 P. M.

All parties present.

Examination of KAYS resumed:

Q. 32. Where did the men who put down the well stop while in Independence?

A. I was told by one James Cole that they stopped at the Burr House.

Q. 33. What was the condition of the house you describe on the lot when you bought it; was it old or new?

A. It was old.

Q. 34. Was there a circus near this well during the time it was on the corner opposite your shop—at any time it was on that corner? If there was, state where it was.

A. There was a circus or menagerie, I cannot say which, on the ground where the public school building now stands, west of the Empire House.

Q. 35. State whether or not the well was used freely on that day; and also state, with regard to the supply of water, whether there was plenty or whether the supply was scant.

A. My memory goes to tell me there was a great many
1230 people used that well that day. I think there was plenty of
water.

Q. 36. What was used on the top of the pipe, if anything, to protect it while being driven; and what, if anything, was used to drive it; and what was used to stand on, if anything, while driving the tube?

A. They used a driving head, as it was called. They used a sledge to drive it. I cannot answer positive what was used to stand upon while driving. There was something, but cannot say whether it was a wagon, a box, or a trestle.

Q. 37. Did you see or know of a driven well being put down on block 3, where the Presbyterian church now stands—I mean on that block—after the one you have described as being opposite your shop? If you did, state how many; when they were put down, as near as you can; and, as near as you can, where they were located, with reference to the well you have already described.

A. I know of a well put down near the Presbyterian church, in the summer of 1868. It was located near a large tree that stands there at the present day. It would be east of the well I have described—on the east end of that block—perhaps 100 feet from that well. That is all the wells I know of being on that block.

Direct rests.

On cross-examination the witness testified as follows:

X Q. 1. You say you came to Independence, Iowa, in September, 1865. Had you ever been here before that time; if so, when?

1231 A. I never had been here before September, 1865.

X Q. 2. Where did you live before you moved to Independence, Iowa?

A. State of Wisconsin, county of Grant, town of Lima.

X Q. 3. How long had you lived there?

A. About sixteen years in that and the adjoining town of Platteville.

X Q. 4. You had lived there all of that time and had not heard of a driven well till you came to Iowa, had you?

A. I had never heard of a driven well till I came to Iowa.

X Q. 5. How long after you came to Independence was it before you bought lot 5 and part of lot 6, in bl'k 22, S. & McC.'s 2d add. to Independence?

A. About 47 days.

X Q. 6. How do you get at the time so accurately?

A. From the fact that I know I arrived here on the 24th or 25th day of October, and bought my property December 12, as my deed shows.

X Q. 7. Have you the deed with you, and have you consulted it before making your answer?

A. I have the deed with me and consulted it a moment before making my answer.

X Q. 8. From whom is the deed to you?

A. From J. E. and Valeria Trexler.

X Q. 9. Will you look at the names as signed to the deed on the inside and give us the names as they are signed to the deed?

A. J. E. Trexler, Valeria Trexler. It is spelled "Valere" inside.

X Q. 10. What is the land as described in that deed?

1232 A. Lot No. 5; and also 19 feet of the west side of lot No. 6, adjoining lot No. 5, bl'k 22, in Stoughton & McClure's 2d addition to the city of Independence, Buchanan county, Iowa.

X Q. 11. Were the premises given into your possession the day you got the deed?

A. I cannot say positively that I moved in the same day.

X Q. 12. Was there any building on these premises at that time except this old house you have described; if so, what was it and where?

A. There was a building there, a dwelling-house, on the southeast corner of the lot No. 5 and nineteen feet of 6, the land I purchased.

X Q. 13. Who lived in that house when you bought this property?

A. A Mr. Baldwin.

X Q. 14. Who lived in the old house when you bought it?

A. William McGonigle.

X Q. 15. Where did Mr. Trexler live at that time?

A. He lived in the rear end of a building that he was keeping a restaurant in, some four doors east of the corner of Chatham, on north side of Main street, east side of the river.

X Q. 16. Was Chatham street laid out, opened, and worked between Mott street and Main street at that time?

A. It was not.

X Q. 17. Where does this Mr. Trexler now live?

A. I do not know.

X Q. 18. Where did he live the last you knew of him or heard of him?

1233 A. In Centre Falls, I think.

X Q. 19. How long after you bought this property was it before these men put down the driven well you have described?

A. I cannot say whether it was the first summer or the second.

X Q. 20. After the well was put down was it taken up and then put back again—I mean after it had been drove some days or weeks?

A. It was taken up, but not put back, to my knowledge.

X Q. 21. Was you at work in your shop all that season that the well was there?

A. Yes, sir; I was.

X Q. 22. If that well had been taken up and carried away for a few days and then put down again in or near the same place would you have known it?

A. I think I should.

X Q. 23. Then you are confident that when the well was taken up and carried away it was not again put back at or near the same place, are you?

A. I think I am.

X Q 24. Did you see these men around there after they put down this well and until it was taken away?

A. Not that I remember of positively.

X Q. 25. Did not these men come there frequently to show this well to parties and try to sell them territory?

A. I think the men were there frequently, but I never heard them attempt to sell territory.

X Q. 26. Did they sell any territory while here that you know of?

A. They did.

X Q. 27. To whom did they sell territory?

A. To a young man by the name of Houston.

1234 X Q. 28. What territory did they sell him?

A. I don't know; I would say it must have been in this vicinity, because he worked within ten or twelve miles of here.

X Q. 29. Did these parties sell or make any wells while here?

A. None except the one I have described, that I know of.

X Q. 30. Was there not four persons in that party that was here and made the well you have described?

A. Not that I know of.

X Q. 31. How many do you now remember that you saw who had some connection with this well?

A. There was two, and perhaps three.

X Q. 32. How long after this well was put down before the circus and menagerie was here that season?

A. I do not know exactly; it might have been one month and might have been two.

X Q. 33. Did you use that well while it was there to get water from?

A. No, sir; further than to go and get a drink, as we had a good well on our own premises.

X Q. 34. How deep did these parties drive their pipe to make this well?

A. From sixteen to twenty feet.

X Q. 35. What kind of a pump did they have?

A. Cast-iron pump.

X Q. 36. What kind of a spout was there to the pump?

A. It was a spout that projected out some four or six inches and dropped down at the point.

X Q. 37. Was it a pitcher-mouthed spout or a round spout?

A. I think it was a round spout.

X Q. 38. How high was the top of this pump from the ground?

A. About three feet, I should think.

X Q. 39. How high was the bottom from the ground?

A. It must have been close to the ground.

1235 X Q. 40. Was there any boards or platform under the pump and top of the ground?

A. I think not.

X Q. 41. Did they at any time have a watering trough there for horses to drink from?

A. No, sir; they did not.

X Q. 42. Was this pump there on the 4th day of July of the year you say it was there?

A. I don't know positively.

X Q. 43. Was there a celebration on the 4th day of July of that year at Independence, Iowa?

A. I don't remember.

X Q. 44. Was there a dinner on the grounds south and west of where this pump was on the 4th of July of that year?

A. Not that I know of.

X Q. 45. Was there any buildings on the lot where this pump was or near it at that time?

A. There was no buildings on the lot; there was a building on the third or fourth lot from the northwest corner, where the pump stood.

X Q. 46. What was that building used for?

A. A dwelling-house.

X Q. 47. Who lived in it?

A. Mr. Goodwin; I think Ed. Goodwin.

X Q. 48. Does he live there now?

A. He does, to the best of my knowledge.

1236 X Q. 49. How far was this well from the house where Goodwin lived?

A. About 50 feet, I should think; perhaps more.

X Q. 50. Whose circus or menagerie was it that exhibited west of the Empire House that year?

A. I do not remember.

X Q. 51. What kind of a house was this that was used by you as a blacksmith shop, that stood there when you bought the place; how was it made and of what material?

A. It was a frame house; it was a balloon frame, I think; the sills were heavy oak timbers on four sills; the sleepers were oak timber on a sill; the siding was bass-wood, flooring was oak; can't say about the shingles.

X Q. 52. You are sure, are you, that this was an old house when you bought the place, and that it was not a log house made of hewed logs sided over with siding?

A. I am sure that it was an old house, and I am sure that it was not a log house sided over with siding.

X Q. 53. Where did you live in 1861?

A. State of Wisconsin, county of Grant, town of Linn, village of Washburn.

X Q. 54. If there had been a driven well put down on this same lot in 1861 would you have known it?

A. I would not have known it.

Redirect:

R. D. Q. 1. If there had been a driven well put down on this same corner in 1861 would you not have been likely to hear of it or hear the fact mentioned that there was one there previous to the time the well was put down that you have described?

1237 A. It seems as though I would have heard of it.

R. D. Q. 2. You say, in your cross-examination, that there was not any boards under the pump; are you positive that there was not boards or short pieces lying round on the ground, to stand on, or what is your recollection on this subject?

A. I think I said there was no boards to the best of my recollection; I have no recollection of seeing any boards or pieces laying round.

Redirect rests.

Recross-examination:

R. X Q. 1. Who would have told you about this well in 1861?

A. I had a brother-in-law here that might have told me; Dr. Warne might have told me, if anybody.

R. X Q. 2. Who was your brother-in-law that was here in 1861?

A. George Warne.

R. X Q. 3. Did you ever ask George Warne about a well there in 1861?

A. I did not.

R. X Q. 4. Did you ever ask Dr. Warne about a well there in 1861?

A. I did not.

R. X Q. 5. Did you ever inquire of any one about a well there in 1861?

A. I did not.

Recross rests.

(S'g'd) J. R. KAYS.

Subscribed and sworn to before me and in my presence by J. R. Kays this 10th day of August, 1880.

[L. S.] (S'g'd) H. W. HOLMAN,
Notary Public.

1238 THOMAS J. BURR produced.

THOMAS J. BURR, of lawful age, being duly sworn, testified as follows:

Q. 1. State your name, age, place of residence, and occupation.

A. My name is Thomas J. Burr; age, 74; residence, Independence; occupation, farming.

Q. 2. Where did you reside during the years 1865, '66, and '67, and what business were you engaged in during those years?

A. I resided the principal part of the time at Independence; came here in June, 1865; I was boarding at the National or Burr House, and dealing in land and other business.

Q. 3. Who kept the Burr House during this time and who owned it?

A. I owned it most of the time; it was kept by my son and son-in-law.

Q. 4. Who did you purchase the hotel of and when did you buy it?

A. I bought it of quite a number of gentlemen here in this place; commenced talking with Mr. Sherwood. I got these four different deeds.

Q. 5. Who kept this hotel prior and up to the time that you bought it, and what was the house called?

A. Thomas Sherwood kept it at the time I took possession; I have forgotten what it was called.

Q. 6. During the time you was at this Burr House, do you remember of any persons stopping there who were dealing in a new kind of patent well?

A. I do.

Q. 7. State who they were, where they were from, and what kind of a well they had.

A. I think there was three parties. One's name was Brown, the other Harrington, and the other Chamberlain. I suppose they were connected together. They were from Wyoming county, State of New York—two of them were. It was what they call a drive well.

Q. 8. What, if anything, did these men have with them to hold the pipe, tubes, &c., if they had such with them?

1239 A. I think they had a wooden box in the basement. I saw a wooden box there I supposed belonged to them. I could not say certain that it belonged to them.

Q. 9. What did you see in this box, if anything?

A. I saw some tools, I think—that is my recollection—tongs, springs, and other tools; I did not look particularly; they were tools used for driving a well; box some 8 or 10 feet long, a foot deep, and a foot or a foot and a half wide.

Q. 10. Did you know C. T. Kimball at that time, and was he frequently around this hotel, and did you see him having anything to do with these men or the well or know of his talking with them about it?

A. I recollect of Mr. Kimball boarding there; I don't know particularly whether he was concerned with them in the business or not; he was in the insurance business. I don't recollect so particularly about Kimball as about Brown and Harrington.

Q. 11. Was there a driven well made in the cellar off from the basement in this hotel or was there any talk of putting one in there? What is your recollection about it?

A. My recollection is there was some talk about putting one in. I don't know as there was any attempt made to do so.

Q. 12. Where did Brown and Chamberlain keep their pipe or tubing?

A. I suppose in the basement, there in this box. I merely suppose this; that is all I know about it.

Q. 13. State what year this was, if you know, that these men stopped at the Burr House.

A. My impression is that it was in 1866. I have not looked at any dates.

Q. 14. Were you acquainted with John Fargo at that time?

A. I was, some.

Q. 15. Was he around with Brown and Chamberlain, appearing to be interested in the well or talking about it?

1240 A. I cannot say particularly as to that; he was frequently at the hotel, and I saw him in conversation with them frequently; I don't know the facts about it.

Direct rests.

On cross-examination the witness testified as follows:

X Q. 1. Did C. T. Kimball board at the Burr House while Brown, Harrington, and Chamberlain were stopping there in 1866?

A. I don't recollect his given name; I recollect of Mr. Kimball's boarding there.

X Q. 2. Describe this Mr. Kimball that boarded there.

A. To the best of my recollection he was a tallish, slim man, sandy complexion, rather on the red-haired order, and something ailed one eye; that is the impression I have got of Mr. Kimball.

X Q. 3. Where did he live at that time?

A. I do not know where he lived; he was stopping here.

X Q. 4. Did he have a family here?

A. I believe his wife was here with him, though he lived here afterwards.

X Q. 5. Did Mr. Kimball and his wife both board at the Burr House while Brown, Harrington, and Chamberlain were there?

A. I think they were there a part of the time.

X Q. 6. Did Mr. Kimball have an office where he did insurance business?

A. I don't know that he did.

X Q. 7. Did he and his wife have a room at the hotel?

A. I think they did; could not say positive.

X Q. 8. Did they have any children with them?

A. I don't recollect.

X Q. 9. How long did Kimball and his wife board at the hotel?

A. I don't recollect.

1241 X Q. 10. Are you positive that they did board there at that time?

A. That is my impression.

X Q. 11. Did you see Brown and Kimball talking together at any time?

A. Well, really, I could not recall to mind any particular time.

X Q. 12. Where did you live in 1861?

A. In Wyoming county, New York State, town of Castile.

X Q. 13. Do you know George Washington Burr?

A. I had a brother by that name I was well acquainted with; I have a son by that name.

X Q. 14. Where did your son by that name live in 1861?

A. I believe he was living with me at the town of Castile, Wyoming county, New York.

X Q. 15. Was he living at Independence town in 1866, while Brown, Harrington, and Chamberlain were here?

A. I think he was.

X Q. 16. What was he doing at that time?

A. I think he was running the bus and tending to the barn and passengers.

X Q. 17. For whom was he doing this work?

A. He was doing it for and in connection with the Burr House.

X Q. 18. Did he work at this business all the time that Brown & Co. were there with this well?

1242 A. I think he did.

Cross rests.

(Signed) T. J. BURR.

Subscribed and sworn to before me and in my presence by T. J. Burr this 10th day of Aug., 1880.

[SEAL.] (S'g'd) H. W. HOLMAN,
Notary Public.

Not being able to conclude the taking of the depositions on this day, I have adjourned until 8.30 a. m. of the 11th.

1243 AUGUST 11TH, 1880.

Parties appear by their respective counsel as before. Taking of testimony resumed.

WM. H. JOSLIN produced by complainants.

WM. H. JOSLIN, of lawful age, being first duly sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is Wm. H. Joslin; age, 45; residence, Independence, Iowa; occupation, merchant.

Q. 2. When did you first move to Independence, Iowa, and how long have you resided there?

A. I moved to Independence in the winter of 1856 and '57, and have resided there from that time until the present.

Q. 3. When did you first see or know of a driven well being put down in Independence, Iowa, if at all?

A. I think in the summer of 1866.

Q. 4. Please state all you know about any driven well being put down in 1866; state where it was located and describe it as fully as you can.

A. A party was here from New York to sell the right to what they called a reservoir well, constructed by driving an iron pipe sufficient depth to reach water, and then by some appliance inserted in the pipe and sunk in the pipe to the depth of the water the soil was stirred up and removed, leaving a reservoir for the water. A pump — attached to the pipe to complete the well. My best recollection is that it was located on or near the line of a street on the west side of the river. It was near the northeast corner of the block Woodward afterward owned, now owned by Z. Stout; it was in the street east of that block is my recollection.

Q. 5. What was the nearest building to this well? State in what direction from it and who occupied it.

1244 A. Across Main street north; it was a frame building. I could not say what it was used for; I think a dwelling; don't know who occupied it.

Q. 6. Who were these parties that put the well down?

A. I don't remember their names; could not describe them.

Q. 7. What part of Independence were you residing in at that time, and how long had you resided where you then resided?

A. I think I lived where I do now—east side of the river, in Bull's addition, block 12. I had lived in that immediate locality, I should judge, 5 years.

Q. 8. Where did you live in 1861—what part of Independence?

A. Previous to my living there I lived on the west side of the river. I cannot say whether it was 1861 or not. I lived nearly opposite where the Presbyterian church now stands; a little further west than that, I should judge.

Q. 9. How long did you live on the west side of the river, at the place you have indicated? State as near as you can.

A. Perhaps two years.

Q. 10. At the time you say this well was put down, in 1866, did you know or had you heard of a well similar or a driven well being put down in that locality at any time prior?

A. I have no recollection of hearing of any.

Q. 11. How far from the northeast corner of the block where the Presbyterian church now stands is it to where you boarded previous to living on the east side of the river?

A. Perhaps 20 rods.

Q. 12. Where did these men stop while at Independence, and who kept the hotel or place?

1245 A. Merchants' Hotel; kept either by one Burr or Burr Brothers; it seems to me it was Burr Brothers.

Q. 13. How was this well regarded by the public generally as to its being a new thing or a novelty at that time? Answer fully.

A. It was regarded as such.

Direct rests.

On cross-examination witness testified as follows:

X Q. 1. When was you married?

A. In 1859.

X Q. 2. Where did you live first after you were married?

A. On the west side of the river.

X Q. 3. How long did you live there?

A. About two years.

X Q. 4. Did you then move to the vicinity where you now live?

A. Yes.

X Q. 5. And have lived in that vicinity ever since, have you?

A. I have.

X Q. 6. What house did you live in on the west side of the river? Give its location, who owned it, and what material it was built of.

A. First house was a one-story brick, with a basement, on north side of Main street, owned by Daniel F. Gifford. It was on lot 6, block 22, S. and M.'s 2d addition. I lived there six months. I then moved into a story-and-a-half frame house, the first house east; either on the same lot or on the lot adjoining on the east. I think I lived there one year; maybe more. I think the second
1246 house was on lot seven, same block as former. J. H. Campbell owned the property.

X Q. 7. Who lived in this frame house east while you lived in the brick?

A. Dr. P. Tabor.

X Q. 8. Was there a house west of the brick while you lived there; if so, who lived in that house?

A. Yes; a man by the name of Trexler; think his initial was J.

X Q. 9. Did Mr. Trexler live in that house when you moved to the east side of the river?

A. I think not.

X Q. 10. Who did live there?

A. I could not say.

X Q. 11. Did you go to keeping house soon after you were married?

A. I did.

X Q. 12. What time in the year 1859 were you married?

A. December.

X Q. 13. When you saw this well that you say was put down in 1866 was there any house on the same block with the well; if so, how near, and what kind of a house?

A. I think there was none.

X Q. 14. How long did that well remain there?

A. I cannot say.

X Q. 15. How many men were here with this well trying to sell territory?

A. I do not know.

X Q. 16. Did they sell territory to any one while here?

A. I do not know.

X Q. 17. What kind of an arrangement was it that they put down into the tube to stir up the soil to make the reservoir?

A. I cannot describe that.

X Q. 18. Did you see it?

A. I did not.

X Q. 19. Did you see this well made?

A. I did not.

X Q. 20. Did you use it or pump water out of it?

1247 A. I think not.

X Q. 21. Did you see others use it?

A. I did.

X Q. 22. About how many times?

A. I cannot say.

X Q. 23. How was you employed in 1861?

A. Clerking in a store for P. C. Wilcox.

X Q. 24. Where was his store?

A. South side of Main street, on the east side of the river.

X Q. 25. Do you know of any soldiers being enlisted here during that summer?

A. I do not remember distinctly regarding that.

X Q. 26. Do you know when there were any soldiers enlisted here for the war of the rebellion?

A. I cannot give any particular time.

X Q. 27. Can you give any year? If so, state it.

A. 1862.

X Q. 28. Was that the year that the first company was raised here for that war?

A. I do not know.

X Q. 29. Is it not possible that a well of the kind known as a driven well was put down in 1861 near the N. E. corner of the block owned by Z. Stout and you not know of it?

1248 A. Hardly.

X Q. 30. If you cannot remember whether any soldiers were enlisted here that year or what year the first ones were enlisted how is it you would know of a well of that kind if you did not see it?

A. From the remarks of others, I should think.

X Q. 31. Who would have told you about it?

A. I was in the store where such things would be very apt to be talked of.

X Q. 32. Was P. C. Wilcox's store the only one here in 1861?

A. It was the principal one; it was not the only one.

X Q. 33. How many other stores were here at that time?

A. I do not remember.

X Q. 34. Did not Orville Fonda and A. H. Fonda and A. B. Clark have stores on the west side of the river at that time?

A. I think they did.

X Q. 35. Did not T. H. Bowen and Paxon & Seeds each have a store on the west side also?

A. I do not know.

X Q. 36. Did not A. J. Bonley, R. R. Pluse, D. S. Dunhue, Close & Cuffall, T. H. Tyson, and about fifteen others have stores on the east side at that time?

A. Some of those parties did, but don't think there was fifteen others besides.

1249 X Q. 37. How many others were? State as nearly as you can.

A. I cannot say as to the number; that is as far as I can go.

X Q. 38. Were there not a number of others on the east side?

A. There may have been.

X Q. 39. Don't you know there was?

A. No.

X Q. 40. Was there not a number of saloons, blacksmith shops, wagon shops, harness shops, and shoe shops on the east side in 1861?

A. Yes; it would not be a Western town if there was not.

Cross-examination rests.

(Signed) W. H. JOSLIN.

Subscribed and sworn to before me and in my presence by W. H. Joslin this 11th day of August, 1880.

[L. S.] (Signed) W. H. HOLMAN.
Notary Public.

Adjourned until 1.30 p. m. of to-day.

1250–1 1.30 p. m.

Counsel all present.

Wm. O. Barnard produced by complainants.

Wm. O. Barnard, of lawful age, being first duly sworn, testified as follows:

Q. 1. State your name, age, place of residence and occupation.

A. My name is William O. Barnard; my age is 61, past; residence, Mason City, Iowa; occupation, burning lime.

Q. 2. Where did you reside between the years 1859 and 1862, and what business were you engaged in during that time?

A. I resided in Cortland village, Cortland county, New York. My occupation was selling general merchandise.

Q. 3. Please give the location of your place of business during that time.

A. Corner of Main and Mill streets, Cortland village, N. Y.

Q. 4. Are you acquainted with Nelson W. Green; and, if so, when did you first become acquainted with him?

1252 A. I am acquainted with Nelson W. Green; I first become acquainted with him in the spring of 1859.

Q. 5. How well are you acquainted with Nelson W. Green?

A. Intimately.

Q. 6. Where did you most frequently meet Col. Nelson W. Green between 1859 and 1862?

A. Generally in Cortland village; we both resided there.

Q. 7. Was there any particular place or places where you met him more frequently than others?

A. At my store, house, and his residence.

Q. 8. State, if you know, when and where the Seventy-Sixth Regiment of New York Volunteers was organized.

A. In the summer of 1861, on the fair ground, between Cortland and Homer villages.

Q. 9. State, if you know, who had command of the regiment in that camp.

A. The most of the time, Col. N. W. Green.

Q. 10. How frequently, if frequently, did you see and converse with Col. Green during the fall and summer of 1861?

1253 A. During the time that he was at home, nearly every day.

Q. 11. During that time what, if any, were the particular subjects of conversation between yourself and Col. Green?

A. Well, Col. Green, probably in about every conversation, would speak of the war and his regiment and circumstances connected with it. I furnished him a considerable many supplies for his family and for different men that had enlisted in his regiment. I would see him about getting my pay. We were both members of the same church; there was trouble in the church; we frequently conversed about that.

Q. 12. What, if any, conversation do you remember with Col. Green in relation to the reported poisoning of wells by rebels?

A. There was a report current that they anticipated a great deal of trouble about poisoning of wells by the rebels; about poisoning of wells used by the Union army. When that report came about I met Col. Green one night, and he always carried a lead pencil in his side pocket in his vest; the pencil was sharpened for use; he took the pencil out of his pocket and held it up with the point down. Said he: I will take a hollow tube; he said we will call that pencil a hollow tube of sufficient size to make a well, with holes perforated in the bottom, and when my regiment goes into camp I will drive that tube in the ground into the water; I will attach a pump to the top and I have a well, and when my regiment raises camp I will draw up the well and take it with us, and in that way we will have no trouble of the rebels poisoning the water. This instance was the first on the subject and in front of my store on the sidewalk.

Q. 13. In this first conversation referred to what, if anything, did Col. Green say in regard to the size of the pipe, about its being pointed, and about its length?

1254 A. I don't think he said anything further than I have already stated.

Q. 14. You have intimated in a preceding answer that this was not the only conversation you had with Col. Green upon the subject. When did you have any other conversation or conversations with him on the subject in the summer or fall of 1861?

A. This first conversation happened, as I said, in the afternoon in front of my store. We had another conversation a short time after, within a couple of hours, at my house.

Q. 15. State what Col. Green said to you on the subject of making a well by driving a pointed tube into the ground in that second conversation at your house; or, if you cannot give the conversation in full, give the substance of it.

1255 A. The second conversation was substantially the same as the first, with this addition, that he should detail some of his officers and men to make a trial at his house to demonstrate it.

Q. 16. Give the third conversation with him on the subject, if you can; if you cannot, give the substance of it.

A. The third conversation that I recollect now was that he had driven the pipe at his house and that it was a success; driven or caused it to be driven.

Q. 17. When and where was that experimental well made?

A. Near the house where he resided at the time. The house was between Cortland village and the fair grounds. It was at the north end of the village, near Dibbles.

Q. 18. What, if anything, did Col. Green say to you in relation to using the plan for making a well which he had tried at his house for regimental purposes? I mean on any occasion after he first told you the experiment had been successful.

1256 A. He repeated the same thing several times. He said he should use it for regimental purposes; said he should take material for a well along with him and detail an officer to see to putting down a well when they went into camp.

Q. 19. What, if any, importance did Col. Green attach to that plan of getting water as a means of making his regiment efficient in the field?

1257 A. He considered it very valuable as a means of getting water and to avoid the risk of his regiment being poisoned by rebels.

Q. 20. To what extent, if any, was Col. Green, during the fall and summer of 1861, excited by or absorbed in matters pertaining to the 76th regiment which he was organizing?

A. I might say, in my presence, almost wholly absorbed. He talked about very little else.

Q. 21. State, if you know, what, if any, education or experience in relation to military matters Col. Green had before the organization of the 76th regiment, and where, if he had any such experience or education, it was obtained.

A. With regard to his education Col. Green was well versed in military tactics and was a competent man to drill a company, in my opinion. He told me he was at West Point and about ready to graduate, but got injured, causing a rupture, and for that reason was obliged to leave West Point before he did graduate. I have seen him at various times drilling his men and he appeared to be very familiar with military tactics. All military men there at Cortland that I heard express themselves said he was the most competent of any man in that vicinity to drill or prepare people for war or military service.

Q. 22. What, if any, peculiarity did Col. Green exhibit in regard to military matters, so far as positiveness and discipline were concerned?

A. I should consider him a very strict disciplinarian. His 1258 boys, as he called them, the men under his command, objected to him, and he became quite unpopular on account of his strict discipline. He frequently had his men in the guard-house for disobeying orders. A portion of his men objected to his strict discipline.

Q. 23. State whether or not, from the conversations you have described with Col. Green, you got such a description of his plan for making a driven well as would have enabled you to make a well on that plan without further instructions from him.

A. I did, and made a very successful one for my own use soon after that on that plan—that is, I superintended it and helped to make it.

Direct rests.

On cross-examination the witness testified as follows:

X Q. 1. When this regiment was in camp on the fair ground did you go out there and see them; if so, how often?

A. I was on the camp ground; yes, sir; and saw them; cannot say how often. I was there every week, and sometimes two or three times a week.

X Q. 2. How long was the regiment encamped on the fair ground?

A. According to my best recollection, they commenced raising that regiment the forepart of the summer and left there in November some time.

X Q. 3. Were they encamped on the fair ground all this time or did they go there only a month or two before they left?

A. My best recollection is they were there all the time—from the time they commenced to raise the regiment until they left; they were there some months—not the whole regiment; they were forming and receiving additions.

X Q. 4. How were they supported while on the fair ground and who furnished the provisions, if you know?

1259 A. I know a man by the name of Julius A. Graham furnished a portion of them, and perhaps all; he furnished the bread; used to take up loads every day.

X Q. 5. Did Graham have a house on the fair grounds where he kept this provision?

A. He did.

X Q. 6. Did he have one of these wells made as Col. Green described to you?

A. There was one well there on the fair ground. I cannot tell whether Graham had it made or the Colonel; it was used all through while they was there. I don't know as to its being used the entire time; my best impression is there was some trouble in regard to that well; it did not work well, but I don't know certain.

X Q. 7. Did you see them use this well any of the time you was on the fair grounds?

A. I don't recollect, but think I did.

X Q. 8. Did you hear Col. Green say anything about this well while it was in use?

A. My best recollection is that I did.

X Q. 9. State, as nearly as you can, what Col. Green said about the well on the fair ground while the regiment was there.

A. I can't give you his words; my best recollection is that he said in substance the first well was not properly put down—the first one on the fair ground; my best recollection is that it was
1260 either fixed or put down in a new place and made a successful well. I would not be positive as to that.

X Q. 10. How long did the regiment remain there after this well was fixed so it worked well and was a success?

A. I don't think the well was a success while the regiment was there, but I won't be positive.

X Q. 11. When was it a success.

A. I cannot tell; I predicate my opinion on the fact that I have seen the well since on the fair ground and pumped water out of it.

X Q. 12. How long did this well remain on the fair ground after the regiment left?

A. I don't know.

X Q. 13. Did Mr. Graham use this well while it was on the fair grounds?

A. I could not tell whether he did or not.

X Q. 14. Did you hear N. W. Green explain the principle of the construction of this well while it was on the fair ground and while the regiment was there?

A. No further than I recollect of his complaining that it was not put down right; what the trouble was I cannot tell; the fair ground well, I recollect, there was some trouble about; I am not clear about it.

X Q. 15. Who made the well for Green back of his house that you have spoken about?

A. I was not present when it was put down.

1261 A. Col. Green told me that Lieut. Mudge, Adjutant Robinson, Lieut. Col. Carmichael, a couple of soldiers, and Col. Green himself; Col. Green, a greater portion of the time, was superintending it.

X Q. 16. What is Lieut. Mudge's given name, and also the given names of Robinson and Carmichael?

A. Byron Mudge; think Robinson's is A. D., but won't be positive; Carmichael's is J. C.

X Q. 17. You state that you also made a well of this kind; where did you make it?

A. I made it at a factory; I was running a pail and firkin factory down by the railroad; I made one at my house, too, but not that season; I did not make either one that season.

X Q. 18. When did you make this well at the pail and firkin factory?

A. In 1862; I cannot give the time exactly; some time in the summer or fall.

X Q. 19. When did you make this well at your house?

A. According to my best recollection, somewhere in the spring of 1863.

X Q. 20. Were both of these wells good ones?

A. They were.

X Q. 21. Did you make them from the description given you by N. W. Green in 1861?

A. The well at the factory I did, and the well at the house I did, but had it drawn * * * and put down again.

1262 X Q. 22. How long was this well at the factory used?

A. It was used until 1866.

X Q. 23. For what purpose and by how many persons?

A. For supplying a boiler—a steam boiler; I cannot answer the other.

X Q. 24. How many persons were employed in this factory while this well was in use?

A. I cannot answer the question.

X Q. 25. How long did you run this factory?

A. From the spring or summer of 1862 until the summer or fall of 1866; it was burned.

X Q. 26. About how many persons did you have employed at any one time in this factory?

A. In the factory and about I have had as many as forty; generally from 25 to 30.

X Q. 27. How long was this well used at your house?

A. It has been used from the time it was first put down until the present time.

X Q. 28. How long did you live in the house after it was put down?

A. I lived in the house until I come to Iowa, the spring of 1873.

X Q. 29. Was this used as a family well?

A. It was.

X Q. 30. Did it always furnish plenty of water?

1263 A. It did.

X Q. 31. Did Nelson W. Green continue to visit at your house while he lived in Cortland?

A. He did.

X Q. 32. Did he see this well?

A. I don't know whether he did or not.

X Q. 33. Was the fact that you had and used this well concealed by you and your family?

A. We did not.

X Q. 34. Was the subject of this kind of a well talked about while Green lived at Cortland?

A. I don't recollect that it was until he came back after his discharge at Washington and applied for his patent for the driven well.

X Q. 35. Were there other wells of this kind put down at Cortland in 1862, '3, '4, and '5?

A. Not that I know personally; only by hearsay.

X Q. 36. Did you hear of such wells being put down there during those years; if so, how many?

A. I don't recollect whether I heard of them at the time; my best impression is I did hear of some being put down, but don't recollect who they belonged to?

X Q. 37. When Green explained the plan to you of making this kind of a well was any one else by to hear it; if so, who?

A. There was at the store; I cannot tell who; there was
quite a number there. At the house in the evening, Dr.
1264-1270 Meacham and his wife, Mr. Bowen and his wife, and
my wife and daughter.

Cross-examination rests:
(Signed) W. O. BARNARD.

Subscribed and sworn to before me and in my presence by W. O. Barnard this 11th day of August, 1880.
[SEAL.] (S'g'd) H. W. HOLMAN,
Notary Public.

Not being able to complete the taking of depositions at this time, I have adjourned until 8.30 a. m. of the 12.
(S'g'd) H. W. HOLMAN,
Notary Public.

1271 WM. D. ANDREWS *et al.*
v. } In Equity.
GEORGE HOVEY.

On this 30th day of August, A. D. 1880, at the hour of 10 a. m., the above-named parties appeared before me, H. W. Holman, a notary public in and for said county, at my office, in the city of Independence, county of Buchanan and State of Iowa, complainants by their solicitors, Rickel, West & Eastman, and defendant by counsel, Lake & Harmon, and both parties waive notice and time and agree that the testimony of the witness, J. M. Chandler, may be taken at this time and placed before the said notary, and when so taken may be read in evidence on the trial of the said cause to the full extent as if taken upon full, due, and legal notice, subject to all legal objections to the same.

J. M. CHANDLER, produced by plaintiffs, being duly sworn and examined, testified as follows:

Q. 1. State your name, age, place of residence, and occupation.

A. My name is Joseph M. Chandler; age, 51; residence, Independence, Iowa; occupation, collection agent for Monroe & Foot, map publishers.

Q. 2. When did you first move to Independence, Iowa?

A. I think it was in 1856.

Q. 3. How long did you continue to reside in Independence from that date?

A. I have lived here ever since, up to the present time.

Q. 4. When, if ever, did you first see a driven well in Independence? If you answer that you have seen one in said place, please locate the same, as near as you can.

A. I saw one in 1866 in Independence, put down near
1272 the northwest corner of the block where the Presbyterian
church now stands. I say near the corner, for it might have been in the street, but I think not; I think it was on the northwest lot in that block.

Q. 5. State, as near as you can, what time in the year 1866 this well was put down, and describe fully the manner of its construction.

A. As to the month, I cannot answer exactly; I think it was May or June; it was driven into the ground; the pipe was driven; it was an inch and half gas pipe with screw couplings inch and a half or two inches. This pipe was driven into the ground with a maul or sledge hammer, and driven down until they came to water, about twenty-two feet, or it may have been twenty; I cannot recollect whether the measurement was from the top of the ground or from the pump, which stood about a foot and a half or two feet above ground. The gas pipe that was driven into the ground had a steel point (it was termed to be) at the bottom, driven into the ground, eight — square. There was three rows of holes, I think, about $\frac{3}{8}$ inch in diameter each hole; these holes were in the pipe above the point; the first pipe driven had no holes in it except where the pin was put through to hold the point; the pin did not fill the hole closely; the holes allowed water to come in so they could test the depth of water in the pipe. After they had tested and found sufficient water in the pipe they raised the pipe that was driven, took it out, took out the point, put in a wooden point without a fastening, made of pine, put down the pipe again, took a rod inside into the pipe, drove out the wooden point, and inserted a steel apparatus or spring clamps attached to a rod with a handle on the top end and similar to an auger; they pushed those springs into the bottom of the pipe, into the gravel, turned it back and forth in the gravel to stir up the sand at the bottom, claiming to make a reservoir; then the rod with the spring was taken out, a large pump put on, and the loose sand they had stirred up was pumped out; then this pipe taken out and a perforated pipe with a wooden plug in the end of it inserted; a pump
placed on that, which completed the well. There was some
1273 sort of a screen, a brass wire screen, on the inside of the pipe
in the last pipe put down.

Q. 6. What, if anything, was used to stand on while this pipe was being driven?

A. It seems to me it was a dry goods box, but would not say sure; the sections were short and were screwed on as they drove each one down to the top of the ground.

Q. 7. What kind of a pump was attached to the top of this tube?

A. An open-top cistern pump, cast iron.

Q. 8. Describe what buildings were near this well at the time it was put down, and give their occupancy, as near as you can.

A. There was a blacksmith shop, I think, north, across the street, and I think there was a low one-story wooden building east of it — the well; I think on the next lot, but will not be sure, as those lots are small, D. S. Deering's house; south of it one block, I think, and in plain view southwest from there, S. S. Allen's house; there was a dwelling across the street from the well east of the blacksmith shop, N. E. from the well—I think Mr. Kays lived there; Mr. Stephenson lived one block north and across the street west; I lived in the same block that Stephenson lived in, in the northeast corner of the block; there was no house between Stephenson's and the house I lived in; there was other building or buildings on the same block, but I cannot describe them; they faced on the other street; I think there was some kind of a house where Pond now lives.

Q. 9. Do you know where Thomas H. Tyson lived at the time this well was put down?

A. I do not.

Q. 10. Were you acquainted with him at that time?

A. I was.

Q. 11. Who put this well down?

A. Charles Brown, and I think the other party's name was Chamberlain.

Q. 12. Were you acquainted with them at the time the well was put down?

A. I was not.

1274 Q. 13. Did you see them at the time the well was put down, and were you sufficiently acquainted with them to recognize them?

A. I saw them for the first time immediately after the commencement of the well, and formed their acquaintance immediately after that, so I would know Mr. Brown to-day; have met him frequently since; the other man I don't remember how he looked.

Q. 14. Please describe the appearance of Brown at the time he made the well; and state, if you can, also a description of Chamberlain.

A. Mr. Brown is about the medium, well put up, well formed man, weighing from 180 to 200 lbs.; considerable coarse voice; talks slow and rather coarse monotone; his beard is brown; my recollection is he wore a full beard at that time; cannot recollect how he dressed. I have no impression about Chamberlain. I cannot tell the color of Brown's eyes.

Q. 15. Where did Brown and Chamberlain stop when they made this well?

A. I think they were at Burr's Hotel.

Q. 16. State, if you know, what other names that house has been known by.

A. First known by the name of "White House," "Burr's," "National," "Merchants';" possibly other names.

Q. 17. State whether or not you frequently saw Brown or Chamberland or either of them at this hotel.

A. I did see both of them there.

Q. 18. Did you know at that time a man by the name of C. T. Kimball?

A. I did.

Q. 19. State, if you know, where Brown and Chamberlain kept the material and tools which they used in the construction of this well or materials they had with them at that time.

A. I think it was in the cellar or basement of the hotel.

Q. 20. State, if you know, what these things were contained in, if anything.

A. I am not quite clear about it, but I think a long box.

1275 Q. 21. Were you acquainted with John Fargo and Thomas Sherwood at that time?

A. I was.

Q. 22. State, if you know, whether or not these men, John Fargo, Thomas Sherwood, and C. T. Kimball, were frequently around the hotel during the time Brown and Chamberlain stopped there.

A. I could not answer as to that; I don't know that they were or were not.

Q. 23. Who was present at the time you saw this well being made?

A. I remember J. B. Turner for one, and I think I saw Tom Tyson there; it seems to me Fargo was there, but I would not say for certain; I know he was acquainted with these parties.

Q. 24. Was C. T. Kimball present during that time?

A. I presume so, but I don't know it.

Q. 25. At the time you saw this well made did you know or had you heard of a well similar to this having been made or put down on the same block, or in Independence, Iowa?

A. I had no knowledge of any other well being put down on that block, or in the city of Independence.

Q. 26. Where was the first driven well located that you ever saw or knew of?

A. The one I have been talking about here at Independence is the first one I ever saw; I knew of such things by reading before.

Q. 27. What business were you engaged in at that time and prior to that, including the year 1861?

A. In 1866 I was engaged in patent rights; in 1865, part of the
year circus and part of the year jewelry and patent rights; in 1864,
show business; in 1863, patent rights in part, and, I think,
1276 constable along about that time; in 1862, patent rights; in
1861, from May until July, show business, and patent rights
the balance of the year.

Q. 28. From what part of May, 1861, was you in the show business?

A. From the 5th to the 10th; I cannot say certain about the date.

Q. 29. Please state whether or not this well you saw put down in 1866 created any excitement in the community or attracted more than ordinary attention.

A. It called quite a crowd about there while they were driving it, and after it was driven they were pumping continuously; seemed to be all that day.

Q. 30. How long did this well remain there?

A. I saw it there for a couple of weeks; how much longer I don't know.

Q. 31. You have stated that this was the first driven well that you ever saw; how was it with regard to others whom you met at that time, as to its being new or novel?

A. I heard people express themselves (some of them) as being the first they had seen, but who I could not say now.

Q. Did you have any business transactions with Brown and Chamberlain or either of them?

A. I did.

Q. 33. State what transactions you had with them.

A. I purchased their patent on the well for the State of Minnesota; the deed was made out to myself and J. B. Turner.

Q. 34. In what part of Independence did you live during the year 1861?

A. The northeast part of the settled part of the town.

Q. 35. Is it possible that a driven well similar to the one
1277 that you have described could have been put down at or
near the same place as the one described, in the year 1861,
and you not know it?

A. I should presume it was possible. I was away a portion of that year—out of the State even.

Q. 36. If a well had been put down similar to the one you have described in April or the early part of May, 1861, and had created as much excitement and attracted as much attention as the one you have described, would you not have been likely to have heard of it, being interested in those years, as you were, in the patent right business?

A. Under those circumstances, it is quite likely I should have heard of it.

Adjourned to 4 p. m.

By consent of counsel, adjourned from 4 p.m. to 7.30 p. m. of this day.

[SEAL.] (S'g'd) H. W. HOLMAN,
Notary Public.

7.30 P. M.

Counsel all present.

Q. 37. Whose show were you with in 1866?

A. I don't think I was with any in 1866.

Q. 38. State whether or not any circus exhibited here (at Independence, Iowa) in 1866.

A. There was.

Q. 39. What was the name of the circus and where did they pitch their tent?

A. Yankee Robinson's circus and menagerie; I think the tent was on the east side of the river, north from the east end of the bridge from thirty to forty rods.

Q. 40. State, if you can, what month the circus was there.

A. To the best of my remembrance, it was in August.

Q. 41. Where is the house located that you have referred to as standing on the lot where Pond now lives? Give the block and part of the block, if you please.

A. Southeast corner lot of the block the Presbyterian church is on, on the west side of the river.

1278 Q. 42. When did you return to Independence after you left, May 5th to 10th, 1861?

A. I think it was July. If in July it was the early part. It is barely possible it was the latter part of June. To the best of my remembrance, it was July.

Q. 43. How long did you remain in Independence at that time before going away again?

A. I was not away that season for any length of time again until near the next New Year's.

Q. 44. How was it in regard to your going on the west side of the river after your return in 1861? Were you frequently on the other side; and, if so, about how frequently?

A. I was there quite often; probably it would average once a day.

Q. 45. When on the west side of the river did you pass by the northwest corner of block 3, on which the Presbyterian church now stands; and, if so, about how frequently?

A. That is hard for me to answer. I did frequently; probably one-third of the times that I was on that side of the river I passed by that corner.

Q. 46. Could there have been a driven well on or close to that corner during any portion of the year after you returned, as stated, without your noticing it?

A. If it was in plain sight, I think not.

(Direct rests.)

On cross-examination the witness testified as follows:

X Q. 1. You say you lived on the east side of the river in 1861. How far from the east end of the bridge was it to your house?

A. From a quarter to half a mile; between a quarter and a half.

X Q. 2. How many blocks east on Main street and how many blocks north of Main street did you live, meaning from the bridge?

A. Three and a half blocks east; six blocks east and three north.

1279 X Q. 3. How large are these blocks?

A. I don't know, sir.

X Q. 4. How wide are the streets between the blocks?

A. I don't know; never measured a street or heard any one say.

X Q. 5. Is there any hill between where you lived and the bridge?

A. There is.

X Q. 6. You stated in your direct examination that you saw them put down this well in 1866. How many persons were present assisting in making that well?

A. From two to four.

X Q. 7. Who were they?

A. Brown & Chamberlain and who else I could not say; I don't remember.

X Q. 8. Did Brown & Chamberlain do the principal part of the work or did they have some one to do the work for them?

A. I don't remember whether they had any one else employed or not; I know there was others helping; whether they were hired or by-standers I cannot remember.

X Q. 9. Did they use a tube to drive into the ground the first thing that was driven?

A. They did.

X Q. 10. Was the tube so arranged that water could come into it when they reached water in the ground?

A. My impression is that it was.

X Q. 11. State particularly how it was arranged; give the kind of point and manner of fastening it into the tube.

A. The point was made of what they deemed to be steel, with a shoulder fitted to the end of the pipe; this projection passed up into
the pipe about three inches, with a hole made through the
1280 shoulder or tenon, with corresponding hole in pipe, fastened
with a pin going through pipe and steel point; there might have been two other holes; it strikes me there was; I know the shoulder and pin did not fit so tight but what water could get in and did get in, for I know they tested it in driving.

X Q. 12. When they had this tube driven until they were in water did they then take the whole thing out of the ground?

A. I think they did.

X Q. 13. In putting the pipe back did they use the same pipe they drove?

A. They did.

X Q. 14. Was any change made in the pipe, except to put a pine point in place of the steel one?

A. I think not.

X Q. 15. State whether or not they had to drive this pipe when they put it back with the pine point in the tube in order to get it down as far as the first pipe was driven.

A. They put tongs on the pipe; a man stood on the tongs; they turned the tongs; they put it down a portion of the way in that way and drove the balance; that is my recollection.

X Q. 16. When they had this pipe back in the ground a second time you say they knocked the pine point out of the tube and put down some springs; please describe these springs.

A. They were steel, joined together at the top and about eighteen inches long in their natural set, bent out at an angle of about forty-five degrees; just two springs, one each way; these springs were pressed together with the hands and inserted into the pipe, and about an inch gas pipe screwed onto the upper end of the machine.

X Q. 17. State now what they did in regard to working these springs in the pipe in making this well at Independence in 1866.

A. They run these springs to the bottom of the well, put on an
iron like an auger handle on the top end of the rod, pushed
1281 the spring down into the ground, turned this handle back
and forward, claiming to stir up the gravel to make a reservoir.

X Q. 18. After they took out the spring and before they put on the sand pump did they force the tube down further into the ground?

A. I think not.

X Q. 19. Did they use the same tube to make the completed well that they used in driving?

A. No, sir.

X Q. 20. Was there any difference in the size of these tubes? If so, state what it was.

A. The last tube inserted was the smallest, either a quarter or half an inch.

X Q. 21. What kind of a point was in this last tube and describe the construction of the tube above the point?

A. The point was merely a wooden plug in the end of the last pipe, and, I think, three rows of about ⅜ths of an inch drilled holes for about 18 inches up the pipe from the bottom, with a wire screen on the inside of the pipe. I think they used coiled wire inside of that wire screen. I am not positive as to that; I know I did not think they did.

X Q. 22. How long did this well remain in that place?

A. I saw it for about two weeks.

X Q. 23. Was it there on the 4th day of July, 1866?

A. I don't know.

X Q. 24. What is your recollection as to that?

A. I have no recollection about it. I cannot remember of ever having seen that after I came back from Minnesota. I left about two weeks after it was driven.

X Q. 25. What time did you return from Minnesota with reference to the 4th day of July?

A. I think it was before, but I don't know. I cannot remember how long I was gone, but don't think it was more than thirty days. I have not placed any dates on my time of leaving or returning. I don't remember.

X Q. 26. Did you see any other well like that on that block in the summer of 1866?

1282 A. I don't remember of seeing any other well. There might have been one there, but I don't remember.

X Q. 27. You say you bought the State of Minnesota on his patent. Whose patent was it, what was it called, and with whom did you do the trading?

A. I cannot remember what the name of the patent was; it is only hearsay; since that our deed was destroyed by fire. Turner and I purchased the territory of Brown & Chamberlain; I don't know which done the deeding; I think it was a partnership affair.

X Q. 28. Where does this Brown now live and what is his business?

A. He lives in St. Paul, Minnesota; business, dealing in horses.

X Q. 29. Was you in Independence, Iowa, most of the summer of 1866 after your return from Minnesota?

A. I was.

X Q. 30. How far did you live from northwest corner of the block where the Presbyterian church now stands, on the west side of the river?

A. Two blocks north and across the street west.

X Q. 31. During the time that this well stood there was there a circus or menagerie that had their tents west of the Empire House exhibited here that season?

A. Not while I was in town; I don't know of my own knowledge that there was.

X Q. 32. Was one advertised to be here during the time you were in Minnesota?

A. I think there was, but would not swear positive about that.

X Q. 33. Whose show was it that was advertised?

A. I don't remember; Bailey, Forepaugh, or Van Amburgh; they all showed here in my absence and I don't know what season they were here.

1283 X Q. 34. Did they all show here in 1866?

A. Not more than one of them.

X Q. 35. Do you know that either of them showed here in the season of 1866?

A. I think one of them did; I don't know.

X Q. 36. Was that well standing on the corner of the block where the Presbyterian church now is when Yankee Robinson's circus was here?

A. I don't know.

X Q. 37. Did you go to Yankee Robinson's circus?

A. I did.

X Q. 38. In going from your house to the circus did not you pass by the street near where this well was put down?

A. In coming from my house to the bridge I usually took a short cut. There was a path from my house to this well. We hardly ever went round the street, there being no sidewalk from our house to Main street, and on that particular day I cannot say whether I went round the street or went across.

X Q. 39. Then, this well might have been there and you not see it, might it not?

A. Certainly.

X Q. 40. In 1861 who lived in the house where you say D. S. Deering lived in 1866?

A. I do not know.

X Q. 41. How was the shop occupied in 1861 that you say Kays occupied in 1866?

1284 A. I don't know as there was any there at that time.

X Q. 42. Was there any building at all on the spot where Kays had his shop in 1866, when you were by there so frequently in 1861?

A. I could not say.

X Q. 43. Was the dwelling-house that was east of the shop in 1866 there when you passed by in 1861?

A. I think so, or a part of it.

X Q. 44. Who lived there in 1861?

A. I don't remember.

X Q. 45. Was there any building on the block where the Presbyterian church now stands in 1861?

A. I think so.

X Q. 46. State what building was on that block at that time.

A. I think that house that is immediately east of where I saw the well in 1866 was there. I think a part of that house was built at that time.

X Q. 47. In 1861 did you have a son named Norris A. Chandler, and was he at that time in the habit of playing a drum?

A. Yes.

X Q. 48. Where is he now and how is he employed?

A. The last I heard of him he was in Minneapolis, Minnesota, in the employ of Munroe & Foot, map publishers.

X Q. 49. When you returned in 1861 from the show business had Capt. D. S. Lees' company left Independence, Iowa, for the army?

1285 A. They had.

X Q. 50. State whether you know how long they had been gone; and, if so, state as nearly as you can how long it was.

A. I think something over a month.

X Q. 51. Were any other companies raised in Independence that summer? If so, state who was the captain.

A. I think there was one more company; Capt. Myers Miller; I think that was the season he went.

X Q. 51½. Did you know Dr. George Parsons?

A. I did.

X Q. 52. Did not he raise a company or part of a company for country service that year at Independence?

A. I think it was later; I know they were in camp at Mount Pleasant, Iowa, in February, 1862; it might have been raised in 1861.

X Q. 53. You stated, in your direct examination, that you had read about driven wells before you saw this one in 1866; when had you read about them?

A. I cannot call to mind what season; a year or two previous to that.

X Q. 53½. Had you read a full description of them and how they were made?

A. I think not; think I saw just a notice of patents; I cannot say just what I did see; I might have read a full description in the Scientific American; I read it often at that time.

X Q. 54. You say you presume C. T. Kimball was present
1286 when this well was put down in 1866, but you do not remember of seeing him; why do you presume he was present?

A. I think I saw him, but will not say positive that I saw him.

X Q. 55. Did you see C. T. Kimball at the Burr House while these men, Brown and Chamberlain, were stopping there in 1866?

A. I cannot remember that I did or did not.

X Q. 56. Did C. T. Kimball ever keep that same house, either alone or in company with some one; if so, when and who was in with him?

A. He did; I don't know when; cannot remember who was with him; seems to me it was Sherwood; if any one, it was Thomas Sherwood.

X Q. 57. Did not C. T. Kimball and Thomas Sherwood keep that hotel together when you left Independence in the spring of 1861 to go into the show business?

A. I think they did.

X Q. 58. Were they or either of them keeping any hotel in Independence when Brown and Chamberlain were here in 1866?

A. I think not.

X Q. 59. In 1861 did not you, in going from your house to the business part of Independence, usually pass by this hotel that Sherwood & Kimball kept?

A. About half the time; possibly a little more than half of the time.

X Q. 60. Was you at home when the partnership between Sherwood & Kimball was dissolved?

1287–1295 A. I don't remember.

X Q. 61. You say that you and Turner bought Minnesota of Brown & Chamberlain in 1866; give the full name and present residence of said Turner.

A. J. B. Turner (Joseph B.) resides at Independence, Iowa.

X Q. 62. Did Brown & Chamberlain sell territory to any other persons while here in 1866; if so, to whom?

A. I don't know of any other trade.

X Q. 64. Did you know H. S. Cole in 1866; if so, was he present when this well was put down?

A. I knew him at that time; I think he was present; I think he had a former acquaintance with Brown.

X Q. 65. Did you know Dr. George Warne in 1866, and was he present at any time while they were putting down this well?

A. I knew Dr. George Warne at that time; I don't remember whether he was present or not.

X Q. 66. Did you know Samuel P. McEwen, and was he present while this well was being put down in 1866?

A. I knew him; I don't know whether he was there or not.

X Q. 67. Did you know T. H. Tyson in 1866, and was he present while this well was being put down?

A. I knew him and I think I saw him there.

(Signed) J. M. CHANDLER.

Subscribed and sworn to before me and in my presence by J. M. Chandler this 30th day of August, 1880.

[SEAL.] (S'g'd) H. W. HOLMAN,
Notary Public.

1296 John Wiley, produced by plaintiffs, being duly sworn and examined, testified as follows:

Direct examination:

Q. 1. State your name, age, place of residence, and occupation.

A. My name is John Wiley; my age is 47; my place of residence is Independence, Iowa; occupation, merchant (shoe dealer).

Q. 2. How long have you resided in Independence, Iowa?

A. Twenty-four years the 12th of last May.

Q. 3. In what part of Independence did you reside during the years 1860, 1861, 1862?

A. Well, I resided in the second ward; I boarded at the Montour House; done business in the fourth ward; that is on the opposite side of the river from the Montour House; that is on the east side of the river.

Q. 4. In what part of Independence did you reside during the years 1865 and 1866?

A. At the same place.

Q. 5. When and where did you first see a well called and known as a "driven well" in the city of Independence, Iowa?

A. On the west side of the river in the year 1868, near the Presbyterian church; perhaps two and a half rods northwest of the Presbyterian church.

Q. 6. Was the Presbyterian church erected at the time you saw this well?

A. I think the walls were up and the roof on; I think the building was inclosed at the time I saw the well.

Q. 7. Was you in the habit of going on the west side of the river during the year 1861; if so, about how frequently?

A. Well, I was frequently on the west side of the river, but to state the exact number of times would be all speculation; I could not say.

Q. 8. Did this first well you saw create any excitement, or was it regarded as new or novel?

A. Well, it did excite curiosity with me; I could not speak for others, only a few that expressed themselves.

Q. 9. Were there many persons at or around this well when you saw it?

1297 A. Three or four; perhaps more.

Q. 10. State, if you know, who constructed that well.

A. I was told that it was one of Hovey's patent drive wells.

Q. 11. Were you present at any time during the construction of this well?

A. I was not, sir.

Q. 12. Then, all you know about who constructed it is from common report, is it?

A. I know it from a statement made to me by one of the persons interested in the well—one of the Mr. Hoveys—not in the year it was put down, however.

Q. 13. State which Mr. Hovey made this statement to you, and when he made it.

A. Mr. George Hovey made the statement a week or two ago.

Q. 14. State what Mr. Hovey said to you in that conversation.

A. That this well was put down by the Presbyterian church by his brother in the year 1868.

Q. 15. State what, if anything, he said further in regard to this well or any other driven well.

A. He said nothing further in regard to this well being put in by the church that I rememember; he told me there was a well put in near the street, near the northeast corner of Mr. Stout's lot, in the summer of 1859, 1860, or 1861; I have forgotten which.

Q. 16. Did you see a well in that locality during any of those years?

A. I did not.

Q. 17. If there had been a well constructed in that locality during the year 1861, such as is now known as a driven well, and had excited the curiosity of the community generally, being regarded by
1298 the citizens as a new and novel thing, and generally talked
about as such, would you not have been likely to have seen it or known of its existence?

A. If it had excited my curiosity very likely I should have seen it; if I had heard of it and had regarded it as one of the humbugs of the day I might not; I never heard of it and did not see it, and cannot tell exactly.

Q. 18. State whether or not Kays' blacksmith shop was on the other side of the street from the block on which this well you first saw was located.

A. It was opposite the block on which the well was located.

Q. 19. Have you been questioned on this subject during the last two years frequently?

A. I have been asked that question by a young man by the name of Royce once as to what year it was that I saw the well over there; not frequently. This case I speak of is the only one I remember, except Mr. West spoke to me about it.

Q. 20. Has not the subject of the well being placed on this block on which the Presbyterian church now stands been frequently discussed in your presence, and has there not been considerable excitement in the community on account of the attempt on the part of complainants to collect royalties on driven wells?

A. I have never heard this question discussed in regard to a well on that lot by the Presbyterian church a great deal, but I have heard a great deal said by those directly interested in these wells, such as those using the wells and the attorneys.

Q. 21. Do you fix the date when you saw this first well from your own recollection entirely or from information received from Mr. Hovey, as stated?

A. By my own recollection. The fall of 1867 the foundation of that church was laid; the next summer the walls were laid and the roof put on. I had a stock in the church and used to go over and look at it. What makes me particular, I have looked up the date that I paid my subscription toward building the church.

Direct rests.

1299 On cross-examination the witness testified as follows:

X Q. 1. In answer to direct interrogatory No. 12 you stated that you knew who constructed the well at the Presbyterian church of which you have spoken from one of the parties who was interested in the well. Do you know that Geo. Hovey, the defendant in this case, was interested in that well?

A. I stated that well was the Hovey patent; I don't know that Geo. Hovey, the defendant in this case, was interested.

X Q. 2. Do you not remember what year Mr. Hovey said there was a well put down near the corner of Stout's lot?

A. My impression is he said 1861; I am not sure; in the fall of 1861.

X Q. 3. In answer to interrogatory No. 18 do you mean to say that Kays' blacksmith shop was standing opposite the block on which the Presbyterian church now is in the year 1868?

A. Yes, sir; I do; that is my impression.

X Q. 4. Did you talk with the persons whom you say were at the well in 1868 when you saw it; if so, do you remember who they were?

A. I do not remember who they were; I remember that I talked with them.

X Q. 5. Was your conversation at that time in reference to driven wells?

A. It was.

X Q. 6. Was anything said in that conversation about the length of time driven wells had been in use?

A. No, sir; not right at that time.

X Q. 7. In the talk about driven wells, of which you say you have heard a good deal, have you heard anything in reference to the length of time such wells have been in use? If so, state what you have heard.

A. When I went over to this well to look at it it excited my curiosity; I came back to the store; I stated I had seen a well by
1300 the church over there; I went on to describe it as a tube
being driven down into the ground with a patent point, so as to—so they could pump water up; that it was said one of the Hoveys here in town patented that drive well; at that time, or during the day, I think we were talking about it, and there was a returned soldier in the store, or two or three; they said they had used the same well when in the army to get water there; who those soldiers were I cannot say, but they were members of the 27th Iowa.

X Q. 8. Was it said to you that this well which you have described was patented by the Hoveys, or was it stated that the well was constructed by one of the Hoveys and that it was patented?

A. It is my impression that it was stated that it was one of the Hoveys patent wells; that one of the Hoveys put it down, and that it was one of Hoveys' patent wells. I never heard of anything else except Hoveys' patent until within the last year or two, since this case was commenced.

X Q. 9. Do you know whether Hovey has a patent for a well; and, if so, do you know what such patent covers?

A. I have heard that one of the Hoveys has a patent on a drive well that has brought about this trouble here; what that patent is I don't know what it is; I know one of the Hoveys has a patent.
(S'g'd) JOHN WILEY.

Subscribed and sworn to before me and in my presence by John Wiley this 18th day of Sept., 1880.
[SEAL.] (S'g'd) H. W. HOLMAN,
Notary Public.

1301 L. W. GOEN produced by plaintiffs.

L. W. GOEN, on being sworn and examined, testified as follows:

Direct examination:

Q. 1. State your name, age, residence, and occupation.

A. My name is Lewis W. Goen; my age is 23 years; residence, Independence, Iowa; occupation, editor of the Independence Conservative.

Q. 2. State about when the publication of the Conservative was commenced in Independence, Iowa.

A. I don't know when it was commenced as the Conservative, under that name.

Q. 3. State if at any time the same paper was published under any other name; if so, state what it was.

A. The predecessor of the Conservative was the Independence Civilian.

Q. 4. State if you know of the existence of any of the files of the Independence Civilian; and, if you do, state in whose possession they are and where they are and, as near as you can, what dates they cover.

A. I do know of the existence of some of the files; they are in the Conservative office, a portion of them, and I have seen some in Lake & Harman's office. I can only speak of 1857, 1861, and 1865; some time during those years, which I noticed in examining them hastily.

Q. 5. Are you the proper custodian of those files in the absence of Mr. Barnhart?

A. Inasmuch as I have charge of the office, I judge that I am.

Q. 6. Will you select from those files the papers issued during the months of April, May, June, and July of the year 1861, and those of the corresponding months in 1866, and produce them before the examiner, H. W. Holman, this afternoon at the hour of 1.30 o'clock?

1302 A. I will try to. I will produce such as I can find—such as are in existence and in my power.

Here recess was taken to 1.30 p. m.

1.30 P. M.

Counsel all present.
Examination resumed.

Q. 7. Mr. Goen, will you please state what, if any, files of the Civilian or Conservative you have obtained, giving the date of issue of each number to the examiner, commencing with the first issue you have?

A. I have the Independence Civilian May 14, 1861; May 28, '61; June 4, '61; June 11, '61; June 18, '61; June 25, '61; July 16, 23, and 30, '61; Aug. 6, '61. That is all in 1861. June 15, 1866. Independence Conservative, June 52, July 20, July 27. Those are all I have been able to find. I have looked through our papers; they are not in very good order.

Q. 8. Are those all the papers of the dates to which your attention was called before adjournment of which you have any knowledge?

A. No, sir. I saw papers at Lake & Harman's office one day this week (yesterday), the top one of which bore date of 1866; I did not examine them.

Q. 9. Were they a part of these same files which you have presented?

A. I don't know, positively, of my own knowledge; I can give my belief. One of the boys in the office says he lent Mr. Lake the papers; therefore I believe they belong to our files.

Q. 10. Have you made any effort, either yesterday or to-day, to obtain the copies that were in Lake & Harman's office?

A. I have.

Q. 11. Did you succeed in obtaining them?

A. I did not.

1303 Q. 12. Were you prevented in any manner from obtaining them; if so, by whom? State fully.

A. Mr. Harman, of Lake & Harman, refused to let me have them.

Q. 13. I will ask you if the papers you have presented here printed in 1861 were printed entire in Independence?

A. I believe them to be; they have that appearance; those of 1866 are printed inside.

Q. 14. Please now examine the files which you have presented here sufficiently to satisfy yourself and state whether there is any allusion in any portion of the paper printed in Independence, Iowa, to a driven well or a tube well.

A. From a cursory examination I believe there is no reference to such a well.

Q. 15. Will you now produce the files which you have referred to and presented here and permit the examiner to mark the same and retain them as exhibits to your testimony?

1304 A. I decline to do so for the reason that we value our files and don't want them scattered any further.

Direct rests.

On cross-examination the witness testified as follows:

X Q. 1. Did you ask Mr. Harman for the files of the newspapers which you say you saw in the office of Lake & Harman; and, if so, what reply did be make?

A. I suggested to him that I wanted to get them, and he said he did not know as he had better let me have them, as he did not know whose they were; that Mr. Lake was responsible for the papers to the one he obtained them of, and he didn't like to let them go until his return.

X Q. 2. Did he not say to you that if you knew that those papers belonged to the Conservative office you could have them, and did not you *not* reply you thought they did, but had no personal knowledge of that fact?

A. He did and I did.

1305 X Q. 3. When did you first become connected with the Conservative office?

A. July, 1879.

X Q. 4. Had you ever been employed in that office in any capacity prior to July, 1879?

A. Only as correspondent; not in the office.

X Q. 5. Have you read entirely any one of the issues of the Conservative or Civilian which you have examined during this examination and in reference to which you have testified?

A. No.

(S'g'd) L. W. GOEN.

Subscribed and sworn to before me and in my presence by L. W. Goen this 18th day of September, 1880.

(S'g'd) H. W. HOLMAN,
Notary Public.

1306 A. R. West, produced by plaintiffs, being duly sworn, testified as follows:

Direct examination:

Q. 1. State your name, age, residence, and occupation.

A. My name is A. R. West; age, 49 years; residence, Cedar Rapids, Iowa; occupation, lawyer.

Q. 2. State whether or not you have at any time examined the files of a newspaper published at the city of Independence, Iowa, in the year 1861, called Civilian or Independence Civilian.

A. I have.

Q. 3. State now particularly what numbers of said papers you had examined and give the date of each issue.

A. February 7, 1861; February 14, 28; March 7, 14, 28; April 4, 9, 16, 23, 30; May 7, 14, 21, 28; June 4, 11, 18, 25; July 2, 9, 16, 23, 30; August 6, 13—all in 1861.

Q. 4. State now whether or not in any of the said numbers there is any advertisement or editorial referring to or noticing in any manner a driven well or tube well or the putting down of the same in Independence, Iowa.

A. There is nothing contained in any of the said numbers that alludes to a driven well or putting down of the same in Independence in any manner.

Q. 5. State now whether or not you have made search or investigation for any of the files of papers published in Independence in

1866, and, if you have, give the result of your search or investigation.

A. I have made very thorough search both by myself—individual efforts—and by agents employed for that purpose, and I have been unable to find the files of any paper published in Independence, 1307 Iowa, in 1866, covering the months of April, May, June, and July; but I have found among the files in the Conservative office papers published in that year in other months.

Q. 6. State whether or not you have found any numbers of the Buchanan County Guardian during your investigation, published in Independence, Iowa, in 1861; if you have, state the result of that investigation.

A. I have, and examined particularly the following numbers: March 5, 12, 19, 26; April 2, 9, 16, 23, 30; May 7, 14, 21, 28; June 4, 11, 18, 25; July 2, 9, 16, 23, 30.

Q. 7. State whether or not in any of the numbers above referred to there is any article, notice, or advertisement of a driven or tube well or putting down of such a well in Independence, Iowa.

A. There is not.

Q. 8. Have you made any search for the files of the Guardian or Bulletin covering date of the year 1866 or any portion of it? If you have, state the result of your investigation.

A. I have made diligent search and inquiry, both by myself and others, and have failed to find, either by my own efforts or those I have instituted, any of the files of either of the papers during the year 1866. From the best information I can obtain they were burned in the big fire in Independence in 1874.

Direct rests.

On cross-examination the witness testified as follows:

X Q. 1. In whose custody or possession were the files of the Civilian of 1861 when you examined the numbers as testified?

A. A portion of the files were in the Conservative office. I was informed by Mr. Barnhart, the proprietor, and also by 1308–1312 Mr. Goen, the editor or manager, that Col. Jed. Lake had borrowed a portion of the files and that they were at his office. I examined a portion of them in the Conservative office and a portion of them in Lake & Harman's.

X Q. 2. In whose custody or possession were the files of the Guardian of 1861 when you examined the same as testified to by you?

A. They were in the office of the Bulletin, in Independence, Iowa, and were handed to me by a gentleman by the name of Loman; they were in a bound volume. I understand Mr. Loman is editor of the Bulletin.

X Q. 3. Did you read the entire contents of any one of the numbers of any of the papers you have mentioned?

A. I did not.

(Signed) A. R. WEST.

Subscribed and sworn to before me and in my presence this 18th day of September, 1880, by A. R. West.

[SEAL.] (S'g'd) H. W. HOLMAN,
Notary Public.

Counsel for def't consents to the examination of Jed. Lake, one of the persons named in the notice pursuant to which this testimony is being taken, may be had on Monday, the 20 inst., or on any day of next week when said Lake is not engaged professionally, Col. Lake being unavoidably absent in New York at this time.

1313 JED. LAKE, produced, sworn, and examined on the part of the complainants, testified as follows:

Q. 1. State your name, age, place of residence, and occupation.

A. My name is Jed. Lake; my age is fifty years; residence, Independence, Buchanan county, Iowa; occupation, lawyer.

Q. 2. How long have you resided in Independence, Iowa?

A. Twenty-five years yesterday since I came here.

Q. 3. State, if you know, what newspapers were published in Independence, Buchanan county, Iowa, in the years 1861 and 1866.

A. In the year 1861 there was published in Independence, Buchanan county, Iowa, a newspaper called the Independence Civilian, and one called the Buchanan County Guardian, and another paper that was a temperance paper; that I don't now remember its name, and I am not positive that this temperance paper was published after about January, 1861. In 1866 there was published at Independence the Independent Conservative, the Buchanan County Guardian, and the Bulletin. I think the latter part of the summer of 1866 the Guardian office was bought out by the Bulletin and the two were consolidated.

Q. 4. Have you examined any of the files of the Independence Civilian, published in 1861, within the last two or three years, with a view of ascertaining whether or not there was in the same paper any notice or advertisement or reference to a driven or tube well?

A. I have examined such copies of the Civilian as I could readily find that were published in the year 1861, but I have never been able to find a complete file of the paper called the Civilian published in that year. I did examine such papers as I found with the idea of seeing whether there was any mention made in them of a well made by driving an iron or tube into the ground and attaching a pump at the top.

1314 Q. 5. Did you discover in any of the numbers of the said papers that you did examine, that was published in 1861 any reference to such a well?

A. I did not.

Q. 6. State, as near as you can, what period or part of the year the numbers that you examined cover.

A. The numbers that I examined bear the dates of April, May, June, and July, and I think one or two in August, but, as I recollect now, there was not the full numbers of either of those months in the papers that I examined.

Q. 7. Did you examine any numbers of either of the papers published in 1866, as stated by you, with the same object in view; if so, what was the result of your investigation?

A. I examined some numbers of the Independence Conservative, printed in the summer months of 1866. I found no mention of anything of that kind in the numbers that I examined.

Q. 8. What months or parts of a month or months did the papers cover that you examined?

A. There were some papers that were published in March, some in April, some in May, some in June, and, I think, some in July, 1866, but the files were not complete, as I recollect, of either month.

Q. 9. Have you any knowledge as to what became of the absent numbers of the files just referred to?

A. The editor and proprietor of that paper told me that his files were burned in the fire, 1874. The papers that I found were
1315 papers that had been kept by other parties, not the editor, and
I presume that the missing numbers were used for various domestic purposes by the family. I have no other knowledge.

Q. 10. Have you examined the files of the Buchanan County Guardian and the Bulletin, or either, of any year or period, to ascertain if there was any notice or reference to a tube or driven well contained in the same?

A. I have examined such numbers of the Guardian as I could find and of the Bulletin, with that view.

Q. 11. Please now state what period the numbers you did examine covered, and state whether or not you found in any of the numbers you did examine any reference to a tube or driven well.

A. The numbers of the Guardian that I examined covered a portion of the years 1860, 1861, and 1862; I found no reference in any of the papers that I examined to a tube or driven well. The numbers of the Bulletin that I examined covered a portion of the year 1866; I found no reference in that to a tube or driven well; I did find an advertisement of reservoir well.

Q. 12. What part of the year 1861 did the numbers of the Guardian cover that you examined?

A. I think it was March, April, May, June, and July.

Q. 13. In what numbers of the Bulletin did you see a notice of this reservoir well, and what numbers were they?

A. I think I only found one number that had the notice in; I think that was dated some time in June, 1866.

Q. 14. Now, please state, fully as you can remember, what kind of a well this reservoir well was, as noticed. State as fully as you can.

A. My recollection is, the paper said there is now in operation one of those celebrated reservoir wells on the west side of the river, and, I think said it was Chamberlain's patent, and that a man by
1316 the name of Husted or Houston, or some such name, had the
right for Buchanan county and would furnish wells to any one who wanted them, or words to that effect; something like that.

Q. 15. Where is this paper in which you saw this notice?

Subscribed and sworn to before me and in my presence this 18th day of September, 1880, by A. R. West.

[SEAL.] (S'g'd) H. W. HOLMAN,
Notary Public.

Counsel for def't consents to the examination of Jed. Lake, one of the persons named in the notice pursuant to which this testimony is being taken, may be had on Monday, the 20 inst., or on any day of next week when said Lake is not engaged professionally, Col. Lake being unavoidably absent in New York at this time.

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Q. 1. State your name, age, place of residence, and occupation.

A. My name is Jed. Lake; my age is fifty years; residence, Independence, Buchanan county, Iowa; occupation, lawyer.

Q. 2. How long have you resided in Independence, Iowa?

A. Twenty-five years yesterday since I came here.

Q. 3. State, if you know, what newspapers were published in Independence, Buchanan county, Iowa, in the years 1861 and 1866.

A. In the year 1861 there was published in Independence, Buchanan county, Iowa, a newspaper called the Independence Civilian, and one called the Buchanan County Guardian, and another paper that was a temperance paper; that I don't now remember its name, and I am not positive that this temperance paper was published after about January, 1861. In 1866 there was published at Independence the Independent Conservative, the Buchanan County Guardian, and the Bulletin. I think the latter part of the summer of 1866 the Guardian office was bought out by the Bulletin and the two were consolidated.

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A. I have examined such copies of the Civilian as I could readily find that were published in the year 1861, but I have never been able to find a complete file of the paper called the Civilian published in that year. I did examine such papers as I found with the idea of seeing whether there was any mention made in them of a well made by driving an iron or tube into the ground and attaching a pump at the top.

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Q. 7. Did you examine any numbers of either of the papers published in 1866, as stated by you, with the same object in view; if so, what was the result of your investigation?

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were burned in the fire, 1874. The papers that I found were
1315 papers that had been kept by other parties, not the editor, and
I presume that the missing numbers were used for various
domestic purposes by the family. I have no other knowledge.

Q. 10. Have you examined the files of the Buchanan County Guardian and the Bulletin, or either, of any year or period, to ascertain if there was any notice or reference to a tube or driven well contained in the same?

A. I have examined such numbers of the Guardian as I could find and of the Bulletin, with that view.

Q. 11. Please now state what period the numbers you did examine covered, and state whether or not you found in any of the numbers you did examine any reference to a tube or driven well.

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Q. 13. In what numbers of the Bulletin did you see a notice of this reservoir well, and what numbers were they?

A. I think I only found one number that had the notice in; I think that was dated some time in June, 1866.

Q. 14. Now, please state, fully as you can remember, what kind of a well this reservoir well was, as noticed. State as fully as you can.

A. My recollection is, the paper said there is now in operation one
of those celebrated reservoir wells on the west side of the river, and,
I think said it was Chamberlain's patent, and that a man by
1316 the name of Husted or Houston, or some such name, had the
right for Buchanan county and would furnish wells to any
one who wanted them, or words to that effect; something like that.

Q. 15. Where is this paper in which you saw this notice?

A. I think I found it in the Conservative office; I don't know where it is now.

Q. 16. Have you made any search for any other papers published in 1866 in Independence, Iowa, with the same object in view? And, if you have, state the result of your search as to whatever you found —any others covering the months of May, June, and July, 1866; and. if you did not find any covering those dates, state what information you obtained as to what became of either of them—the Conservative, Bulletin, or Guardian.

A. I have made some considerable search for copies of the three papers, Conservative, Bulletin, and Guardian, published in May, June, July, and August, 1866. I have occasionally found an odd number of each during that time, but in neither of them have I found any notice, advertisement, or mention of a driven or tube well, and in but one number of the Bulletin did I find any notice of a reservoir well. The editors of the papers as they were published in 1866 were not now connected with either of these papers. The present editor of the Bulletin informed me that he never had the back files of that paper. The editor of the Conservative told me that what files he did have were burned up in 1874. The parties with whom I found odd numbers of these various papers said they had not kept full files. The Guardian went out of existence; I think it was in the summer of 1866 that it ceased to be published. As to the Conservative I am not positive now whether Barnhart was editor in 1866, but I think not. That is all the information I have as to the absence of those files.

Direct rests.

1317 On cross-examination the witness testified as follows:

X Q. 1. State whether or not Mr. West, solicitor for complainants, has shown you any notices of wells, which notices purported to be extracts from papers published in Independence, Iowa, in 1866; and, if so, state, if you can, the substance of the notices of such wells.

A. Mr. West has shown me some writing purporting to be extracts taken from the Buchanan County Guardian, published at Independence, Iowa, in 1866, and one extract purporting to be taken from the Buchanan County Bulletin, published at Independence, Iowa, in 1866. The general tenor of the notices were to the effect that some parties had put down a reservoir well on the west side of the river, at Independence; that it was a patented institution, and that parties having it in charge were anxious to sell territorial rights.

X Q. 2. Were you acquainted with the editor and proprietor of the Buchanan County Guardian in 1866?

A. I was, provided that was running here in 1866.

X Q. 3. Who edited and published the Buchanan County Guardian at the time and for one year prior to the time it ceased to be published?

A. A man by the name of Goodenough. I don't recollect his first name; think his initials were S. B.

X Q. 4. State, if you know, what his custom was as an editor in noticing in his paper, the Guardian, such events as the putting in of the reservoir well you have mentioned.

A. It was his custom to mention such things as the well
1318 and other patented matters that came here and were exhib-
ited, if the party having it in charge paid him for so doing.
If they did not pay him he did not notice it.

X Q. 5. Were you acquainted with the editors and proprietors of the Civilian and Conservative and Bulletin papers, published, as you say, in Independence, Iowa, in 1861 and in 1866?

A. I was acquainted with the different editors of each of those papers.

X Q. 6. Were you a subscriber to and did you take those papers during the years 1861 and 1866 or either of them; and, if so, which?

A. I took the Guardian all of the time of its existence as the Buchanan County Guardian. I have taken the Bulletin constantly since October, 1865. I have taken the Conservative since its existence as the Conservative. I took the Independence Civilian for a number of years, and I am quite sure I took it in 1861.

X Q. 7. What was the custom of the editors of those papers, during the time you took the same, in regard to noticing in those papers patented articles exhibited or exposed for sale in Independence, Iowa?

A. It was the custom of each of the editors of those papers to notice such articles in their papers, provided the parties having them in charge and exhibiting the articles paid the editors for so doing; otherwise they did not notice them.

X Q. 8. Were you living in Independence, Iowa, in the year 1866, at the time the notice of the reservoir well you have mentioned was published, as stated by you?

A. I was living at Independence, Iowa, at the time.

X Q. 9. Did you see the reservoir well, notice of the loca-
1319 tion of which was published, as you have stated? And, if so,
state where the same was located and what you saw and
know of the same.

A. I don't remember of seeing that well or hearing about it at the time.

X Q. 10. Did you see or know of a tube or driven well being constructed at Independence, Iowa, in the year 1861? And, if so, state where the same was located and what you saw and know of the same.

A. I saw an iron tube sticking out of the ground about eighteen inches, on the top of which was an iron pitcher-spouted pump and from which I pumped water and saw others pump water. This pump was located near the northwest corner of block 3, Stoughton and McClure's 2d addition to Independence, Buchanan county, Iowa, and on the northeast corner of the same block the Presbyterian church now stands, on the west side of the river, at Independence, Iowa. The time that I saw this well first was the last part of April or the forepart of May, 1861.

X Q. 11. State how long, if you know, the well you have described was at the place you have mentioned.

A. This well remained there until the latter part of July, 1861, and after that I was not on the west side of the river that fall very often, and I don't know how long it did stay.

Cross-examination rests.

1320 On redirect examination the witness testified as follows:

Re-D. Q. 1. Are you the Jed. Lake that is a member of the firm of Lake & Harmon, solicitors for the defendant in this action?

A. I am.

Re-D. Q. 2. You stated in your cross-examination that Mr. West showed you a writing purporting to be extracts from newspapers. Have you that writing with you?

A. I have.

Re-D. Q. 3. Will you now produce the same and allow the notary to mark it as an exhibit and attach the same to your deposition?

A. This paper was given me by Mr. West, with the remark that I might keep it. If he will furnish me with another copy I am willing to let him have it to use as he may deem best.

(Witness here produces a paper and lays it on the table in front of Mr. West. The same consists of two sheets or leaves, written on three pages, and is marked Exhibit "A" and attached to this deposition.)

(Signed) JED. LAKE.

Solicitors for complainants gives notice that *that* the taking rebutting testimony on the part of complainants is closed at this time at this place.

1321 Exhibit A.

The following is a copy of an article from The Guardian, of Independence, dated May 30, 1866:

A great curiosity.

It is worth one's while to go over the bridge and look at the pump that is pulling up water in any quantity right out of the ground. We last week saw some strangers pounding an iron tube into the earth, while boys and men, with mouths agape, were wondering what was to pay; whether they were " borin' for ile" or sounding for gold was a mystery. But at last we " caught the cat out of the bag." They were putting down one of " Chamberlain's new patent subterranean reservoir wells." In other words, they were going to get an inexhaustible cistern of water by simply driving a rod down anywhere in the ground. We passed by incredulous, but wisely held our peace, such seeming impossibilities do come to pass in our day, and, sure enough, next day we found a pump going on top the tube, and such a stream of such clear, sweet water as poured forth hour by hour it was a pleasure to see—and to drink. This is a genuine invention, and no mistake. A reservoir is carefully dug out at the bottom of the tube (in this case 22 feet down), and thus a supply is continuously kept up without danger of caving in, since any loosening earth still leaves the cavity the same. Anywhere that a well can be dug this better well can in a few hours be shoved down, and when you move (everybody out West keeps moving) you can pull up your well and shoulder it off to your new "diggins." Why, for aught we can see, poor pilgrims can now carry a well on their camel's back, and suck out cool, fresh water anywhere from under the burning sands of Sahara's desert. Do, reader, go and look at one of the greatest inventions of our age.

P. S.—We learn that Mr. E. P. Heusted has obtained the right from Messrs. Harrington & Brown, proprietors, and will operate the improvement for this county.

1322 From The Guardian, dated June 6, 1866.

"Well, what of that well!"

It keeps pumping still, and the reservoir seems to be inexhaustible. Time only confirms the first impression that this new patent tube well is a first-rate affair. It may be a mystery to many how such a continual supply of clear, cold water can be sucked out of the earth with so little ado. "But the proof of the pudding is in the eating," and if any one doubts just let him go to this pump on the west side and see for himself. A large reward is offered to any one who will pump it dry.

From The Guardian, dated June 13, 1866.

"The water still comes."

See the advertisement of that wonderful well which we insert today. Everybody speaks well of the well, and it is sure to go. So well are we assured of this that we have already bargained for one on our premises to show our faith by our work. Go thou and do likewise.

P. S.—We are just informed that the State of Minnesota has been sold out to Chandler & Turner, of Independence, for $2,000. This thing is going like "hot cakes."

From The Bulletin, dated June 5, 1866.

"Subterranean reservoir wells."

One of these remarkable inventions is exhibited in full operation on the west side of the river. An iron tube is driven perpendicularly into the earth until water is reached, when a reservoir is excavated just below the tubing as a source of supply. A pump is then attached to the top of the tube, and the well is ready for use. The first question naturally arising is, "Can an abundant supply of pure water be permanently secured in this manner?" This sample well runs into quicksand, which is the bane of ordinary wells, yet the water obtained is unlimited in quantity, cold, and perfectly pure, not a particle of sand having been raised.

1323–1329 This well can be sunk both cheaper and more quickly than ordinary wells wherever there is no rock to stop the tubing. Proprietors, Messrs. Harrington & Brown. Mr. E. B. Huested, at the Burr House, has the right for this county. He will furnish all further information and dispose of township rights on reasonable terms.

1330 The complainant, Wm. D. Andrews, appeared at one o'clock p. m., and adjourned the examination until 4 o'clock p. m. same day.

Deposition taken on behalf of the complainants at the office of Aug. A. Nicholson, notary public, No. 615 Seventh street, in the city of Washington, D. C.

WASHINGTON, D. C., *September* 13*th*, 1880—4 o'clock p. m.

William D. Andrews appeared on the part of complainants; no one appearing on the part of defendants.

OSCAR C. FOX, a witness produced on the part of complainants, being by me first duly sworn, in answer to interrogatories propounded by Mr. ANDREWS, testifies as follows:

Q. 1. Please give name, age, residence, and occupation.

A. Oscar C. Fox; 50 years old; Washington, D. C.; examiner in Patent Office.

Q. 2. Please state whether or not you were ever connected with the 76th Regiment of New York State Volunteers; and, if you say you were, please state when you became connected with it, in what capacity, and how long you remained connected with that regiment.

A. I was mustered into said regiment October 4, 1861; was captain of Co. B of said regiment; I resigned on account of a wound 22d December, 1862; about fifteen months.

Q. 3. Who was in command of that regiment at the time you first became connected with it?

A. Colonel Nelson W. Green.

Q. 4. Do you know whether or not Heman F. Robinson, James C. Carmichael, and Byron Mudge were connected with that regiment? And, if you say they were, please state in what capacity each of them was so connected.

A. They were connected with the regiment, as I know; H. F. Robinson, as adjutant; James C. Carmichael, as lieut.-colonel, and Byron Mudge, as lieutenant.

Q. 5. Where was that regiment encamped at the time you joined it and while the parties named were acting in the capacities as you have stated?

A. We were encamped at the Cortland fair ground, known as Camp Campbell, about three-quarters of a mile from Cortland village.

1331 Q. 6. What, if anything, did you know concerning a well made in the mess-house of the regiment, at Camp Cambell, during the encampment there of the 76th regiment?

A. I knew there was a well made there on a plan suggested by Col. Green; I did not see the well made; I saw it in use; from common report I understood it to be a tube driven down into the earth, and there was a pump attached to the upper end.

Q. 7. You have stated that there was a well put down there upon a plan suggested by Col. Green; do you mean Colonel N. W. Green, the then commander of the regiment; and did you at that time hear any other person's name mentioned as being the suggester, originator, or inventor of that method of making wells and procuring water from the ground?

A. In my answer I referred to Col. N. W. Green, then in command of the 76th N. Y. Volunteers; I did not hear much about the well at that time; I did not hear any other person spoken of as the originator of the well.

Q. 8. Did you or not know of the shooting of Capt. McNett, one of the officers of that regiment, by Col. Green, for alleged insubordination and attempt at mutiny?

A. Yes; I knew of the shooting of McNett.

Q. 9. How long had you been acquainted with Col. N. W. Green, previous to the occurrence of that shooting?

A. I had known him about three or four months.

Q. 10. How long was it after your first acquaintance with Col. Green when his connection with the 76th regiment came to an end?

A. Eight or nine months.

Q. 11. Now, I ask you, Captain Fox, whether during the time you were acquainted with Col. Green after the shooting of Captain McNett you observed any difference in his general mental characteristics and conduct from what you had previously observed?

A. Colonel Green became changed in his deportment, as I observed.

Q. 12. Will you please state what that change was that you observed, and how did it ultimately culminate?

1332 A. He became over excitable on small pretexts; he seemed to be unbalanced, and as time elapsed the officers of the regiment became satisfied that his troubles had so worked upon his mind as to have destroyed his executive abilities, and they were fearful of being led into action under his command; this feeling culminated in his arrest under charges of incapacity, arising from the change in his habits and nature, which began about the time of the shooting of Captain McNett.

Q. 13. Will you please state what effect the shooting of Captain McNett appeared to have upon the public mind in and about Cortland previous to the time of the regiment leaving Cortland?

A. It appeared to produce great excitement in the community; the people took sides for and against Col. Green and the regiment, and the whole section of the country was excited to a high degree; it was rumored that there would be an attack upon the camp, and quite extensive preparations were made by Col. Green to defend the camp.

Q. 14. What, if anything, do you know concerning any action taken against Col. Green by the civil authorities of Cortland county in relation to the shooting of Capt. McNett?

A. I understood that he was indicted for the shooting of Capt. McNett, and that he was tried on the charge in the spring of 1866, but I had no absolute personal knowledge.

Q. 15. When, if ever, did you next meet Col. Green after his discharge from the 76th regiment?

A. I next met him at Cortland, in 1863 or 1864.

Q. 16. Will you please state in what condition you then found him?

A. He became excitable, talked about his troubles, spoke of Mr. Meacham and his church troubles; said that people called him insane, and was generally in an unbalanced, excitable condition; I met him upon the street, and our conversation lasted ten or fifteen minutes only.

Q. 17. What knowledge had you concerning Col. Green's church troubles and his difficulties with the Rev. Mr. Meachem previous to this interview?

A. I had a general knowledge from rumor.

1333 Q. 18. Had you ever previously conversed with Col. Green about his church troubles and difficulties with Rev. Mr. Meachem?

A. No; I never had.

Q. 19. And yet upon a casual ten minutes' meeting upon the street, not having previously seen Col. Green for one or two years, his conversation during that time reverted to and centred upon his own individual troubles, as I understand your testimony. Am I correct?

A. Yes; that is correct.

At fifteen minutes past six o'clock the examination was adjourned, by request of Wm. D. Andrews, until to-morrow, Tuesday, Sept. 14, 1880, at 9 a. m.

TUESDAY, *Sept.* 14, 1880—9 o'clock a. m.

Parties met pursuant to adjournment.

Present: As before.

Examination of O. C. Fox continued:

Q. 20. Was there or not any division of feeling among the members of the regiment in regard to the shooting of Capt. McNett by Col. Green?

A. There was a division of feeling in regard to that matter.

Q. 21. On which side of that division did you stand?

A. I stood in favor of Col. Green; was friendly to Col. Green.

Q. 22. And were you or not still personally friendly to Col. Green *personally* after the change in his character and actions which you have said commenced about the time of the shooting of Capt. McNett?

A. Yes, sir; was still friendly to Col. Green, and I continued so.

Q. 23. Did you or not unite with the other officers of the regiment in the endeavor to have him removed from the command?

A. Yes, sir; I did.

1334 Q. 24. And was or was not your action in that matter taken while you still felt friendly to Col. Green?

A. It was; I was still friendly to Col. Green.

Q. 25. And was your action taken solely for what you considered the best interests of the regiment and the service and without animosity to Col. Green personally?

A. Solely for that, as you have said. It was a hard thing for me to do.

Q. 26. Under whose immediate command was Col. Green and the 76th regiment at the time of his arrest on the charge you have mentioned?

A. Under the command of Gen. Abner Doubleday.

Q. 27. By whose orders, if you know, was Col. Green placed under arrest upon those charges?

A. By Gen. Doubleday's orders.

Q. 28. Do you know—and, if so, please state—what had been and what was at the time of that arrest the feeling of Gen. Doubleday towards Col. Green.

A. I had every reason to believe that Gen. Doubleday's feelings towards Col. Green at the time of the arrest were friendly; it was so generally understood.

(Signed) OSCAR C. FOX.

Sworn and subscribed to before me this 14th day of September, A. D. 1880.

[L. S.] (S'g'd) AUG. A. NICHOLSON,
Notary Public.

Two days, at $1.50 per day, $3.00.
Travel, two miles.
(S'g'd) AUG. A. NICHOLSON, *N. P.*

1335 Complainants propose next to produce Heman F. Robinson as a witness, and, as it is stated he is sick and unable to appear at the office of the notary for examination, at the request of the complainant, Wm. D. Andrews, this examination is now adjourned to the residence of Mr. Robinson, No. 33 D street southeast, in the city of Washington, at 4.30 o'clock p. m., on Tuesday, September 14th, 1880.

Met pursuant to adjournment at No. 33 D st. S. E., at 4.30 p. m., Tuesday, September 14th, 1880.

Present: Wm. D. Andrews, on the part of complainants; no one appearing for the defendants.

Complainants produced for examination HEMAN F. ROBINSON, who, being by me first duly sworn, in answer to interrogatories propounded by WM. D. ANDREWS, testified as follows:

Q. 1. Please give your name, age, residence, and occupation.

[A.] Heman F. Robinson; 52 years; Washington, D. C.; clerk in the War Department.

Q. 2. Did you formerly reside in Cortland village, N. Y., and were you there at the time the 76th regiment of N. Y. Volunteers was raised and quartered upon the agricultural fair grounds in the summer or fall of 1861?

A. I was there, a resident of the village of Cortland, at the time the 76th N. Y. regiment was quartered on those grounds.

Q. 3. Did you take part in raising and organizing that regiment?

A. I did.

Q. 4. Did you afterwards become connected with the regiment; and, if so, in what capacity?

A. I was connected with the regiment at its first inception as first lieutenant and adjutant of the regiment, and was the first commissioned officer mustered into the regiment, with the exception, perhaps, of Col. Green, who was commander of the regiment.

Q. 5. Were you acquainted with James C. Carmichael and Byron Mudge, then of Cortland village, and were they connected with the 76th regiment; and, if so, in what capacity?

1336 A. I was intimately acquainted with both of those gentlemen. Mr. Carmichael was to be major; Mr. Mudge to be a lieutenant.

Q. 6. About when did Col. Green's connection with the regiment commence, and about how long did it continue?

A. His connection with the regiment commenced with its earliest organization, in the summer or fall of 1861, and ended, if I remember correctly, in April in 1862.

Q. 7. Were Mr. Carmichael and Mr. Mudge connected with and did they assist under Col. Green in raising and organizing that regiment?

A. They were sere so connected, and so assisted. They were connected with it and assisted in raising it.

Q. 8. And did they, as well as yourself, act with the regiment in official positions under and subordinate to Col. Green?

A. They did, as well as myself.

Q. 9. Please give Col. Green's full name.

A. Nelson W. Green.

Q. 10. How long previous to the organization and mustering in of the officers and men of that regiment had Carmichael and Mudge been assisting in raising or otherwise contributing to the formation of that regiment?

A. Some two months prior to the original mustering, which occurred on the 4th of October, 1861.

Q. 11. When, if you know, was Col. Green first authorized for the raising of that regiment, and when did he assume in form the command of the regiment as its colonel?

A. Col. Green was the recognized commander of the organization of the regiment from the date of its inception, or when the first recruiting for the regiment commenced, in September, 1861. As I understand it, he received his commission as colonel, or his authority to raise the regiment, some time in September, 1861, and from the time the organization first commenced until his final discharge he was the recognized head of the regiment.

Q. 12. Please give the date, if you are able, when you were mustered into the regiment and when you received your commission as adjutant.

1337 A. I was mustered into the regiment on the 4th day of October, 1861, as first lieutenant of company "A." I performed the duty of adjutant before the regiment was perfected and held the position for fifteen months after muster-in. There was no special commission as adjutant.

Q. 13. Did the 76th regiment leave Cortland to join the army in the field; and, if so, when?

A. On the 18th of December, 1861, or thereabouts, it left Cortland for the front.

Q. 14. From the time of the first inception of the regiment down to the time of its leaving Cortland, what portion of his time did Col. Green give to the organizing and attending to the affairs of the regiment?

A. His whole time.

Q. 15. Please state what were your opportunities for knowing the facts stated in your last answer.

A. The intimate personal relations and a personal presence myself.

Q. 16. State whether Col. Green confined himself to his proper military duties, or whether he attended to other outside labors and affairs connected with the regiment.

A. Affairs connected with the regiment. Col. Green had a general supervision of the whole affair, performing his own duties and supervising those of others.

Q. 17. Was there a time, either before or while the regiment was encamped upon the fair ground in Cortland, that Col. Green brought to the notice of yourself and others who contemplated becoming officers of the regiment a new method for constructing wells?

A. There was.

Q. 18. Please state, as near as you may be able, where and when he so brought this new method of constructing wells to your attention.

A. He brought this matter to my attention in the building then owned by Jas. A. Schermerhorn, in the month of September, 1861, or possibly the month previous.

Q. 19. Please state, if you are able, who, if any persons, were present at the time Col. Green called your attention to this new method of making wells.

1338 A. There were some five persons present belonging to the drill squad, but I cannot now give their names with any positiveness—Mr. Mudge, Mr. Carmichael, Mr. Newcomb, myself, and possibly others.

Q. 20. Will you please state what Col. Green said upon that occasion in respect to his method for obtaining water, giving his statement fully, as far as you are able?

A. At the meetings of this drill squad the questions asked as to the means and methods of providing supplies, especially that of water, were often discussed. Col. Green told me that, whilst looking over the records or annals of the Crimean war, he noticed the great difficulty there was in getting a good supply of pure water, and he said while lying in bed he conceived an idea whereby that want could be readily and quickly supplied, and that was by means of a rod driven into the ground, then withdrawn, a tube inserted in the orifice, and a pump attached to the tube. This method he conceived and asserted was a means by which water could be easily procured. The point of the suggestion was that this would enable him to provide means by which his own regiment should never suffer for water on the march or in camp.

6 p. m.—Adjourned to same place, 33 "D" street, southeast, at 9 o'clock a. m., Wednesday, Sept. 15th, 1880.

WEDNESDAY, *September* 15*th*, 1880—9 o'clock a. m.

Met pursuant to adjournment.

Parties present as before.

Wm. D. Andrews, on part of complainants, no person appearing on the part of defendants.

Examination of HEMAN F. ROBINSON continued:

Q. 21. Was the method of procuring water from the earth which Col. Green then suggested and described new to you; and, as far as you know, judging from their expressions and the conversation which ensued, was it or not also new to the other parties present?

1339 A. It was new to myself and, as I believe, to all others present; in fact, the idea was ridiculed as being an impracticability. Mr. Mudge was one of the parties, and myself also, that opposed the practicability of the idea. I think Newcomb did so also.

Q. 22. Had you ever before that heard of any such wells as described by Col. Green having been made or that such well could be made and water procured from the earth by the means as suggested and described by Col. Green?

A. I had never heard, read, or known of any such process.

Q. 23. Did Col. Green afterward bring the same matter to your attention and that of the other parties you have named as being present at the conversation when Col. Green suggested and described this method?

A. He did to me and, I think, to them, and, according to my best recollection, it was at the first meeting of the squad after news had been received of the surrender of Lexington, Missouri, in the latter part of September, 1861.

Q. 24. Please state what Col. Green said on this occasion in respect to obtaining water by the means he had previously described.

A. He stated it as he did before, but with more earnestness.

Q. 25. Was or was not his description and explanation of his process for constructing a well and obtaining water from the earth thereby so full and clear that (assuming its practicability) you could have constructed a well and obtained water by the means and process described by him?

A. It was clear, plain, and any person could have performed it with the necessary tools.

Q. 26. Please name some of the persons who were present on the last occasion you have mentioned, when Col. Green again suggested and described this method.

A. I cannot state positively at this time; according to my best recollection, Carmichael, Mudge, and myself were present, and possibly Cole and Todd.

1340 Q. 27. Did Col. Green then suggest the trying by actual experiment to see whether or not a successful well could be made by the process he had previously described?

A. He did.

Q. 28. And was such an experiment afterwards made? And, if you say there was, please state where it was made, who made it, and about the date when it was made.

A. The experiment was made by Carmichael, Mudge, and myself on Green's own premises, and, I think, in the month of September, 1861.

Q. 29. Please state whether or not yourself, James C. Carmichael, or Byron Mudge, either of you, expressed any confidence or otherwise in the success of that experiment at any time previous to its completion.

A. They had no faith in it at all, and so expressed themselves; neither had I.

Q. 30. When requesting that experiment to be made, did Col. Green say anything as to the means to be employed? Please state as fully as you may be able as to that.

A. Col. Green took a pencil from his pocket, as illustrating the shape of the rod to be used, then gave directions as to the method it should be put down, Mudge himself to carry out the details.

Q. 31. Was or was not the place where that experiment was to be made suggested and decided upon at the time when Col. Green suggested that the experiment be made, as you have testified?

A. It was.

Q. 32. How soon after this conversation and suggestion was this experiment made, and at what time in the day was it commenced?

A. The suggestion was made late in the afternoon of one day and the trial was commenced quite early in the next morning.

Q. 33. How far was it from Col. Green's residence where this experimental well was made, and in which direction from it?

A. It was about two rods east of the rear of Green's house and about three rods from the brook which ran through the grounds.

1341 Q. 34. What was the character of the soil and surface of the ground where that well was made?

A. The soil was sandy loam; the surface was like a potato field, having evidently been used as a garden spot.

Q. 35. Was there or not a rod prepared to be forced into the earth? And, if you say there was, please give its length and diameter as near as you may be able.

A. The rod was prepared; it was about twelve feet in length and about an inch and a half in diameter.

Q. 36. Was this rod forced into the ground; and, if so, how?

A. A temporary wooden structure was prepared, with a rope and pulley attachment by which to drop and raise the rod, and it was thus forced into the ground by raising and dropping it, the bar being pointed in the form of a vertical cone, two and a half to three and a half inches in height.

Q. 37. Please describe the wooden structure you speak of.

A. It was a scantling driven into the ground, having a cross-piece at its top, at one end of which was the pulley spoken of.

Q. 38. Was Col. Green present during any portion of that experiment?

A. He was during the latter part of the experiment.

Q. 39. What kind of a pump did Col. Green suggest to be used in that experiment?

A. He suggested a common tin pump.

Q. 40. And did he or not suggest the use of any instrument for driving the rod; and, if so, what?

A. He suggested the use of a beetle if it should be necessary to drive, and said we could find one somewhere on the premises that would answer the purpose.

Q. 41. Do you remember any reason why Col. Green did not remain during the whole course of the experiment?

A. A messenger came from camp in haste for Col. Green, saying his presence was required immediately, and he then left.

Q. 42. Did he again return before the close of the experiment?

1342 A. Not to my recollection; my impression is that he did; the camp was but a short distance away.

Q. 43. Who of you three—yourself, Carmichael, and Mudge—took the lead in that experiment, or was it the joint action of you all?

A. It was the joint action of the three of us.

Q. 44. Please state what, if anything, was said by any of you three gentlemen during the progress of the experiment as to its probable success.

A. All appeared still to doubt the success of the experiment; for myself I know that I did, and so expressed myself.

Q. 45. Do you remember any remarks of Col. Green's made during that experiment?

A. My recollection is that upon withdrawing the rod no water appeared for several minutes, which led us, or at least myself, to believe that there would not be any, but Col. Green said, in substance, "Hold on, boys; don't be discouraged; we will see." We remained a few minutes, when I stepped to it and distinctly saw water in the hole.

Q. 46. Was any additional force used other than the weight of the bar in dropping to force it into the earth; and, if so, what?

A. We guided it with our hands and forced it down by a sort of churning process, and used the rope and pulley to aid us in raising it.

Q. 47. Was the hole thus made by the bar forcing the earth laterally and compacting it about the bar as it descended?

A. The hole was thus made, being a simple puncture.

Q. 48. How deep was the puncture made by this bar?

A. About five feet.

Q. 49. How long was the tin pump, if you remember?

A. I never saw it before it was inserted in the ground.

Q. 50. About how long were you engaged in forcing down the bar, preparatory to inserting the pump?

A. It was a very short time; not over two hours.

Q. 51. Were you absent at the time of the insertion of the pump;
and, if so, did you again return to the place?

1343 A. I was absent at the time the pump was inserted, but
think I was present and saw it worked afterward.

Q. 52. What was the result of that experiment, as demonstrating the feasibility of the plan suggested by Col. Green and carried out by it?

A. It was regarded as a success and as proving the feasibility of his process for procuring water.

12, noon—Examination suspended until 4.30 p. m.

4.30 P. M.

Present: As before, and the examination of Mr. ROBINSON continued:

Q. 53. What was the size of the hole made by the bar or rod as compared with the bar itself?

A. The hole was the size of the bar; the bar fitted snugly in the hole.

Q. 54. Do you know whether a well, made after the same process as the one at Col. Green's house, was afterwards made in the mess-room or cook-house in the camp of the 76th regiment, on the fair grounds, at Cortland?

A. I do; there was such a well made.

Q. 55. How had water for the use of that mess-room been obtained previously?

A. By the use of metallic pumps from two dug wells on the fair grounds and from wells outside the camp grounds in the immediate vicinity.

Q. 56. Please state, if you know, who superintended the making of this well in the cook-house and what tools were used.

A. Mr. Mudge superintended it, using the same rod and process as were used in the making of the well on Col. Green's premises.

Q. 57. What kind of a pump was used on that well?

A. An ordinary cast-iron pump, but smaller than those in use on the camp ground.

Q. 58. Did you see this well operated while the regiment remained in the camp?

A. I did; I pumped water from it myself within an hour after it was put down.

Q. 59. What was the character of this well as to furnishing a copious
supply of water or otherwise?

1344 A. First rate in every particular; there was no further
difficulty in regard to the supply of water.

Q. 60. Who had charge of the mess-house and of the victualing of the members of the regiment?

A. Julius A. Graham.

Q. 61. Did you hear any expression of opinion by Mr. Graham in regard to this well and the supply of water obtained from it? And, if so, please state.

A. Mr. Graham expressed himself to me as delighted, and that he wondered at the supply, and that he was surprised by so simple a process.

Q. 62. In the general conversation with and among the persons in and out of the camp who had knowledge of this well to whom was the discovery or invention of that process accredited?

A. To Col. N. W. Green, Mudge doing the work.

Q. 63. Did you ever, during the time the regiment was encamped upon the fair grounds, hear that invention or the discovery of that process of procuring water from the earth attributed to or claimed by or for any other person?

A. No.

Q. 64. Can you name any person or persons, other than those you have already named, who were present during the making of the experimental well at Green's house?

A. I remember none others than Mr. Horace Dibble, who lived almost immediately opposite.

Q. 65. According to your recollection, how much time was Green present during the experiment at the house?

A. About half an hour.

Q. 66. Please state what was the supply of water furnished by the experimental well made by Green's house.

A. I don't know that I saw the pump used.

Q. 67. Had you knowledge concerning the shooting of Capt. McNett, of the 76th regiment, by Col. N. W. Green for alleged insubordination and attempt at mutiny?

A. I had, although I did not see it; I heard the shot fired; I was only about fifteen feet away.

Q. 68. Please give the date of that occurrence.

1345 A. To the best of my recollection, that occurred in the latter part of November, 1861; it was immediately before the regiment was ordered to Albany, New York.

Q. 69. Please give the date when the well in the mess-room on the fair ground was put down under Mudge's superintendence, as you have testified.

A. It was in the early part of October, 1861.

Q. 70. About when did you first become acquainted with Col. Green?

A. In 1859, to my best recollection.

Q. 71. What effect did the shooting of Capt. McNett by Col. Green have upon the members of the regiment and upon the people of Cortland and vicinity?

A. The members of the regiment, excepting, perhaps, the Cherry Valley portion, sustained Col. Green in his action. The community of said Cortland were highly excited and threatened to storm the camp, some, however, taking one side and some the other; Green procured a field piece to protect the camp from assault.

Q. 72. Did you know of any difficulty between Col. Green and the church of which he was a member and with the Rev. Mr. Meachem, the pastor of that church?

A. Personally, no; but it was town talk with regard to the pastor, Mr. Meachem; I think I had it from Green's own lips that the two had had a personal altercation on the street.

Q. 73. Please state, from knowledge or from information, as to the intensity of the feeling in the church and community for and against Col. Green growing out of the shooting of McNett and the church difficulties you have mentioned.

A. The intensity of the feeling was very bitter, although some members of the church stood by Green; the community was divided in sentiment on the subject.

Q. 74. When did Col. Green's connection with the 76th regiment cease?

A. In March, 1862, as I now recollect.

Q. 75. Please state what action preceded the severance of his connection, and what was the cause of that action and severance of that connection.

A. Thirty officers of the regiment applied to the com-
1346 manding general for a hearing upon some fourteen charges
against Col. Green; he had shown by his conduct that his mind was affected, and they did not wish to go into battle with him; he was erratic, impulsive, and was not regarded as a safe commander.

Q. 76. From the time of your first acquaintance with Col. Green down to the time of this application of officers of the regiment had you or not observed a great change in his manner, methods, and general characteristics?

A. Yes.

Q. 77. About when did you first observe such a change, and was it abrupt and sudden, or was it a gradually-increasing change?

A. The precise time when this change evinced itself I cannot state, but it commenced very soon after his altercation with his pastor; was enhanced by the shooting of McNett and extraordinary cares relating to the organization of the regiment; and this change continued to increase up to the time of the action of these officers in endeavoring to get him removed from the command of the regiment.

Q. 78. Were you friendly to Col. Green during his McNett troubles and down to the time of the application of these officers for his removal from command of the regiment?

A. I was, personally.

Q. 79. What resulted from this application of the officers for his dismissal?

A. He was placed in close arrest in camp at Fort Totten; he was finally discharged from the service; he never had any connection with the regiment afterwards.

Q. 80. Did you sign the application made to the commanding general for a hearing upon the charges as you have stated?

A. I did.

Q. 81. Please state whether or not you then had any animosity or ill feeling toward Col. Green, or whether the signing of that paper was solely because of the abnormal condition in which Col. Green then was, which as you believed incapacitated him for performing the duties of commanding officer.

1347 A. I have not and never did have any personal animosity toward Col. Green. The desire for his removal from the command of the regiment was that he was considered as badly unbalanced.

Q. 82. Please state whether or not at that time Col. Green was in a fit state and condition of mind, in your opinion, properly to conduct and manage any ordinary business.

A. I think not; I wouldn't have employed him myself.

Q. 83. To what cause do you attribute this change in Col. Green?

A. To his troubles arising from the shooting of McNett, his indictment for that shooting, and his troubles with his pastor.

[L. S.] (S'g'd) H. F. ROBINSON.

Subscribed and sworn to before me this 15th day of September, 1880.

(S'g'd) AUG. A. NICHOLSON,
Notary Public.

Hearing adjourned until to-morrow, September 16th, 1880, at 9 o'clock a. m., at No. 615 Seventh St. northwest, in this city of Washington, D. C.

Robinson, two days, @ $1.50.

(S'g'd) AUG. A. NICHOLSON, *N. P.*

1348 Met, pursuant to agreement, at No. 615 7th street N. W., Thursday, September 16th, 1880.

Present: Wm. D. Andrews, on the part of complainants, no one appearing for defendant.

Wm. H. Chase, a witness produced on the part of the complainants, being by me first duly sworn, in answer to interrogatories propounded by Wm. D. Andrews, testified as follows:

Q. 1. Please give your name, age, residence, and occupation.

A. Wm. H. Chase; 53 years; No. 1125 11th street N. W., Washington, D. C.; clerk in the Treasury Department.

Q. 2. How long have you resided in the city of Washington?

A. Fifteen years and seven months.

Q. 3. Where had you previously resided?

A. Unadilla, Otsego county, N. Y.

Q. 4. Please say whether or not you have occupied any official positions in the city of Washington; and, if you say you have, please say what they were.

Ans. I have occupied public positions in the city; a member of the city council in the city and the board of aldermen for three years; I was for three years commissioner of metropolitan police in the District of Columbia and vice-president of the board, and also police magistrate of the metropolitan police and justice of the peace. During the three years of the board of public works I was superintendent of sewers and drains. I am a member of the bar of the District of Columbia, and one of the founders of the National University; for five years president of the board of regents.

Q. 5. While a resident of the State of New York did you hold any public positions, either civil or military? And if so, please state what they were.

A. Civil, no; but military, yes. For thirteen years immediately preceding the outbreak of the rebellion I was judge advocate on the major general's staff, 5th division N. Y. State militia.

1349 Q. 6. Did you become connected with the army; and if so, to what corps, and when?

A. I entered the service in 1861; first division, first army corps, 75th Regiment N. Y. Volunteers.

Q. 7. Who was the commander of the 76th Regiment N. Y. Volunteers?

A. Col. Nelson W. Green was in command of the regiment prior to and immediately after the arrival of the regiment in Washington.

Q. 8. When, if you know, did Col. Green's connection with the 76th regiment cease?

A. The spring of 1862.

Q. 9. When did your acquaintance with Col. N. W. Green commence?

A. In the spring or early summer of 1861.

Q. 10. Were you cognizant of the fact that Col. Green had shot one of the captains of his regiment, named McNett, for alleged insubordination and attempt at mutiny?

A. Not personally; only by common report.

Q. 11. Will you now please state the facts in regard to your first meeting with Col. N. W. Green and acquaintance with him during his connection with the regiment?

A. I first met him in regard to establishing a camp for the purpose of raising a regiment at Norwich, in Chenango county, N. Y. I overtook the regiment at Philadelphia, and was with the regiment up to the fall of 1862. I came out as private in the regiment and was promoted to quartermaster in the summer of 1862. Immediately after reaching the city of Washington the 76th regiment went into camp on Meridian Hill under command of Col. Green. By the direction of Col. Green I was relieved of my duties as a private and acted as secretary to the lieut. colonel, John D. Shaul. From general conversation and personal knowledge I soon became satisfied that he was in an unfit condition to perform any duties or to transact any business at all, as he seemed to be perfectly unbalanced in mind and totally changed since my first acquaintance with him. Soon after this complaint was made to Gen. Abner Doubleday that Col. Green was not in a fit state of mind to be in command of
1350 the regiment, and he was then put under temporary arrest.
Lieut. Col. Shaul then took command of the regiment.

After the arrest of Col. Green the 76th regiment was removed to Fort Massachusetts, on the 7th street road, about four miles north of the city; then charges and specifications were preferred against him by the officers of the regiment for incompetency resulting from an unbalanced and deranged state of mind. The general understanding was that this condition of mind was the result of his unfortunate connection with the shooting of Capt. McNett, and I believe such to be the case, although I was not personally cognizant of the fact.

Q. 12. What were your relations with Col. Green as to being friendly or otherwise from the commencement of your acquaintance down to the time that he ceased to have connection with the 76th regiment?

A. Entirely friendly, and I think we had the very best of feeling for each other, and, while I most reluctantly drew the charges and specifications against him, he had my entire sympathy.

Q. 13. Were you or not in accord with the officers of the regiment in the desire to have Col. Green removed from the command?

A. I was.

Q. 14. And do I correctly understand you to have believed that Col. Green's condition was such that, notwithstanding your friendship for him, you considered it a duty to endeavor to have him removed from the command of the regiment?

A. Certainly; that is as I mean to be understood.

Q. 15. Did the action of these officers eventually result in the removal of Col. Green from the command of the 76th regiment?

A. It did.

Q. 16. Have you, since his removal from the command of the regiment, met and associated with Col. Green? And, if you say you have, please state when, where, and under what circumstances.

1351 A. I have never seen Col. Green since he was first put under arrest on Meridian Hill.

[SEAL.] (S'g'd) WM. H. CHASE,
1125 11*th* — *N. W.*, *Washington*, *D. C.*

Subscribed and sworn to before me this 16th day of September 1880.

(S'g'd) AUG. A. NICHOLSON.

12.30.—Adjourned to Bicking's store, on Marlboro' pike, District of Columbia, to 6.30 p. m.

Wm. H. Chase, one day, $1.50; travel, one mile.
(S'g'd) AUG. A. NICHOLSON, *N. P.*

1352 (This deposition suppressed by order of court.)

Bicking's Store, Marlboro' Road, D. C.,
Thursday, *September* 16*th*, 1880—6.30 p. m.

Present: William D. Andrews, on part of complainants, no one appearing on the part of defendant.

Complainants offer as a witness Ezekiah Klock, who, being by me duly sworn, in answer to interrogatories propounded by Wm. D. Andrews, deposes as follows:

Q. 1. Please give your name, age, residence, and occupation.

A. Ezekiah Klock; 57 years; Forestville, Prince George county, Maryland; farmer.

Q. 2. How long have you resided at Forestville?

A. Nine years.

Q. 3. Did you not formerly reside in Preble, Cortland county, N. Y.?

A. Yes, sir.

Q. 4. Please state what years you resided there?

A. I resided in Preble eight years—from 1860 to 1868.

Q. 5. Where did you first reside in Preble, and how long did you reside there?

A. I resided the first four years on William Tallman's farm, about a mile south of Preble village.

Q. 6. Where was this farm situated, in relation to the farm of Moses Tallman, a brother of Wm. E. Tallman?

A. On the opposite side of an east and west road which separated the two farms, William's being on the north side and Moses' on the south.

Q. 7. About how many acres of land were there in the Wm. E. Tallman farm which you occupied?

A. Two hundred and six acres.

Q. 8. Please give the eastern and western boundaries of that farm.

A. The eastern boundary was the Tioughgehony creek and the western boundary the west road running from Preble to Homer.

Q. 9. What did you occupy the farm for principally?

A. As a dairy farm, keeping from 40 to 60 head.

Q. 10. Where did you procure the water necessary for watering your stock?

1353 A. Out of this creek, principally, but occasionally from a well in the barn-yard, and the first spring I was on the place occasionally from a well on the western part of the farm; that was in the spring of 1860.

Q. 11. And did you not use this well on the western part of the farm for the purpose of watering your stock after the spring of 1860? And, if you did not, please state the reason why.

A. I did not, because we could not depend on the pump.

Q. 12. Please describe, as near as you can, the location of this well you speak of on the western part of the farm.

A. It was in a valley or ravine in the second lot north of the east and west road and about fifty or sixty rods from that road, and in the second lot east of the west road and about fifty or sixty rods from that road.

Q. 13. What kind of a well was this?

A. It was a dug well stoned up.

Q. 14. About what was the depth and diameter of that well?

A. About 14 feet deep; I don't recollect distinctly the diameter, but I think it was about 30 or 36 inches.

Q. 15. How was water obtained from this well?

A. The principal part by hand pumping.

Q. 16. Was there or had there been any other means than by hand pumping for obtaining water from that well?

A. There was a windmill pump attached to it and a windmill standing — the well; it was no use to me whatever, as I couldn't depend on it.

Q. 17. How long after you went on the place, in the spring of 1860, did this windmill operate that pump so as to be of any benefit to you?

A. It was never of any use or benefit to me at all.

Q. 18. Did any other person during the years you occupied that farm, from 1860 to 1864, make any use of that windmill pump, or was it exclusively under your control as the occupant of the farm?

A. No, sir; I rented the farm after the first year, and the first year, 1860, I worked it on shares, and during the whole time had full control of the whole farm and of the well.

1354 Q. 19. Was there anything peculiar about this well other than that water was or had been pumped from it by means of the windmill?

A. I never knew of any peculiarity other than that.

Q. 20. Did you ever converse with Mr. Wm. E. Tallman in regard to the manner in which that well was made?

A. I don't remember that I ever did.

Q. 21. Did he ever claim to you that there was any peculiarity in the construction of the well itself?

A. Nothing more than that it was a common well.

Q. 22. Did you ever hear Mr. Wm. E. Tallman or any one else say or claim that the water from that well was drawn by the windmill pump from an iron tube driven into the bottom of that well?

A. No, sir; I never did.

Q. 23. Please state whether or not during the time you occupied that place this well was ever dry.

A. No; I never knew of the well being dry.

Q. 24. Did you have occasion ever to procure water from this well during those years?

A. Yes, sir; for drinking purposes; in hay and harvest time we occasionally went there for drinking water and always found a supply.

Q. 25. Do you know and have you ever used what is now known as a "driven well?"

A. Yes, sir; I have, in Preble village.

Q. 26. When did you first know or hear of a driven well, and where was the well?

A. In 1864 or 1865, and situated on the Wm. E. Tallman farm.

Q. 27. Who, if you know, put down the first driven well of which you have knowledge?

A. A man by the name of Dunham, of Homer.

Q. 28. Where did Wm. E. Tallman live during the four years you occupied his farm?

A. He lived in the same house with me on the farm.

Q. 29. During those years had you frequent and constant intercourse with Wm. E. Tallman?

A. Yes, sir.

1355–1362 Q. 30. And were you, during that time, on friendly and intimate terms with Mr. Wm. E. Tallman and his family?

A. Yes, sir.

Q. 31. How far was Moses Tallman's house from the house which yourself and Wm. E. Tallman occupied?

A. Perhaps a little over one hundred feet.

Q. 32. And had you or not during the four years you resided in the Wm. E. Tallman house uninterrupted friendly and neighborly relations with Moses Tallman?

A. Yes, sir; Mr. Moses Tallman's family and mine were always on friendly terms while we lived there and after we left.

Q. 33. And did you have frequent meetings and intercourse with Moses E. Tallman?

A. Yes, sir; I met him daily.

(Signed) EZEKIAH KLOCK.

Subscribed and sworn to before me this 16th day of September, 1880.

[SEAL.] (S'g'd) AUGUST A. NICHOLSON,
Notary Public.

(End.:) No. 1350. Eq. Andrews *vs.* Hovey *et al.* Deposition of Oscar C. *et al.* Filed Oct. 18, 1880. E. R. Mason, clerk. Ezekiah Klock, 1 day, $1.50. Travel, 7 miles. (S'g'd) Aug. A. Nicholson, N. P.

1363 Circuit Court of the United States, District of Iowa. In Equity.

WM. D. ANDREWS *et al.* *vs.* GEORGE HOVEY.

SAME *vs.* OTHERS.

Testimony for final hearing taken on the part of complainants before me, A. J. De Lacey, a notary public, duly commissioned and sworn, in and for the city and county of New York, at the office of J. C. Clayton, Esq., No. 7 Warren street, in said city of New York, under and pursuant to the annexed notice.

NEW YORK, *Sept. 13th*, 1880—10 o'clock a. m.

Present: J. C. Clayton, Esq., counsel for complainants.

Defendants present a written protest to the taking of this testimony and request that the same may be filed with and made part of the same.

The said protest is annexed hereto and marked "Defendants' Protest," A. J. De L., notary public.

JOSEPH L. GALT, a witness reproduced on the part of complainants, *and* being resworn, in answer to interrogatories propounded by Mr. J. C. CLAYTON, testifies as follows:

1364 Q. 1. Are you the Joseph L. Galt who was examined as a witness on the part of complainants on the 9th day of August, 1880, in a suit pending in the U. S. circuit court in and for the district of Iowa, wherein Wm. D. Andrews *et al.* are complainants and George Leland is defendant?

A. I am.

Q. 2. In your answer to the 41st question in the deposition then made by you, you said you believed a petition was sent to the Secretary of War by the surgeons, certifying that in their belief Col. Green was insane. Since giving said deposition have you been able to refresh your recollection as to the said certificate?

A. I have.

Q. 3. State fully how your recollection has been refreshed, and state fully the state of the facts in relation thereto and as to the nature and character of that certificate, who signed it, and to whom sent, and when you last saw said certificate or any part of it.

A. Since giving my testimony referred to I am able to recollect that a petition was sent through the regular military channel to the general commanding the brigade, which was signed by all the officers, with a few exceptions, of the 76th Regiment N. Y. Volunteers, including the surgeon and assistant surgeon, asking that Col. Green be removed from the command of said regiment by reason of his mental condition, and that any delay on the part of the general in doing so might result in disastrous consequences, for which they could not be held responsible. I have seen the signatures to the original petition to-day in the hands of Gen. Abner Doubleday, to whom the petition was sent, and who, as Green's immediate commanding officer, removed him from his command and placed him in close arrest, in consequence of that petition and his belief in Green's insanity, to the extent that it rendered him an unfit person to exercise the important responsibilities and duties of commanding a regiment.

Q. 4. Do you remember any of the facts and circumstances which led to the preparation and presentation of the petition above referred to? If so, state some of them.

1365 A. Colonel Green's sayings and doings; at that time they were so peculiar as to surprise the officers of the regiment, and several of them expressed fears to me that he would commit some overt act, as he made free use in the handling of his pistol, accompanied by threats at times; he was vacillating in his orders, giving and revoking them at times without apparent reason or cause. I considered him at that time much unbalanced in mind, and, as I now recall the circumstances, think he was decidedly so. Occasionally he inflicted and attempted to inflict humiliating and unusual punishment upon the commissioned officers of the regiment.

Adjourned to Sept. 14th, 1880, at 10.30 a. m.
(Signed) A. J. De L.,
Notary Public.

New York, *Sept.* 14, 1880—10.30 a. m.

Met pursuant to adjournment, and again adjourned the examination to Sept. 16th, 1880, at 10.30 a. m.
(Signed) A. J. De L.,
Notary Public.

U. S. Circuit Court, District of Iowa. In Equity.

William D. Andrews *et al.* *v.* George Hovey.

Same *vs.* Others.

Continued deposition of Joseph L. Galt, taken in rebuttal on final hearing in above cause before me, A. J. De Lacey, Esq., being sick and unable to attend.

Dated N. Y., September 16th, 1880.
FREDERICK EDER,
Notary Public.

Q. 5. How long had you been acquainted with Colonel N. W. Green at the time the petition you have spoken of was made for his removal?

A. About a year.

Q. 6. What had been your relations with him as to being friendly or otherwise?

A. Very friendly.

Q. 7. Where was the regiment stationed when the petition was made for Colonel Green's removal?

A. Near Brightwood, Maryland.

1366 Q. 8. Did you not sign the petition for his removal?

A. I did not, that one.

Q. 9. Were you or not an officer of the 76th regiment?

A. I was sutler.

Q. 10. Why did you not sign the petition?

A. Do not remember that I was asked; presume they had enough without me.

Q. 10. Had you or not, during your acquaintance with Colonel Green, noticed a change in his mental characteristics and actions?

A. I did notice a decided change.

Q. 12. About when did the change commence?

A. I noticed the change when I rejoined the regiment at Meridian Hill, near Washington, D. C.

Q. 13. Will you please explain what this change was that you noticed, and how did it affect his capacity and usefulness as commander of the regiment?

A. I found him very irritable, restless, and excited—giving orders and revoking them without any apparent reason; keeping his officers in a continual state of suspense and apprehension, and the peculiar things he said and did impaired his usefulness as commander of the regiment materially.

Q. 14. Had you or not, previous to his shooting McNett, had confidence in Colonel Green's skill and ability to properly fulfill the duties of commander of the regiment?

A. I had entire confidence in his capacity up to the time I rejoined the regiment at Washington.

Q. 15. When did you change your opinion as to his capacity and ability to command the regiment successfully?

A. After arriving at Washington.

Q. 16. Was or was not your change of opinion based upon and caused by the change you noticed in Colonel Green?

A. It was.

Q. 17. Did or did not your change of opinion cause a change of your friendship for Col. Green?

A. It did not.

1367 Q. 18. You have, in your answer to Q. 13, given some instances of Col. Green's actions, of which it is hard to believe that you could approve. Please explain why it was that his acts, as you have described them, did not change your friendship for him.

A. His mental condition was such that I did not consider him responsible, and my sympathies were excited, because I knew his condition was the result of the bitter controversies and troubles in which the shooting of McNett involved him, and I believed him to be persecuted.

Q. 19. Can you name any other parties, not members of the 76th regiment, who had or would be likely to have knowledge concerning Col. Green's mental condition?

A. Generals Doubleday, Casey, and Barry, and members of their respective staffs, whose names do not now occur to me, excepting Capt. Halsted, of General Doubleday's staff.

Q. 20. Was Colonel Green removed from the regiment in consequence of the petition made for his removal?

A. He was.

Q. 21. To whom was that petition presented?

A. To General Abner Doubleday, his immediate superior officer.

Q. 22. What immediate action did General Doubleday take in the matter, and about when was it?

A. He ordered his arrest and close confinement; I think in March, 1862.

Q. 23. What were your relations with General Doubleday, as to being friendly or intimate with him, that enabled you to know anything of his action in the matter?

A. I was intimate at General Doubleday's headquarters, my position being such that he frequently called upon me to convey messages and transact business for him of a personal nature.

Q. 24. What, if you know, were the relations then existing between General Doubleday and Colonel Green, as to their being friendly or otherwise?

A. Friendly.

Q. 25. What, if any, knowledge have you of General Doubleday and Colonel Green having been previously connected or associated together?

1368 A. Have heard General Doubleday say that they were room-mates at West Point.

Q. 26. Why, if you know, was Colonel Green ordered into close confinement by General Doubleday?

A. Because it was not considered safe, in Colonel Green's condition of mind, to allow him to be at liberty.

Q. 27. Do you or not know whether General Doubleday still remained friendly to Colonel Green, and do you know any circumstances that corroborate the fact as you state it to be? And, if so, please give it.

A. I understand that General Doubleday appeared at Colonel Green's trial to testify as to his doing his duty in shooting McNett. General Doubleday has recently expressed himself to me as friendly to Colonel Green, and that his placing him in close confinement was a plain duty and could not be avoided.

(Signed) JOSEPH L. GALT.

Subscribed and sworn to before me this 16th day of September, 1880.

[SEAL.] (Signed) FREDERICK EDER,
Notary Public (29), *N. Y. Co.*

1369 U. S. Circuit Court, District of Iowa.

WILLIAM D. ANDREWS *et al. vs.* GEORGE HOVEY.

SAME *vs.* OTHERS.

Proofs on rebuttal in behalf of complainants on final hearing, before me, Frederick Eder, a notary public, duly commissioned and sworn, in and for the city and county of New York, at the office of J. C. Clayton, Esq., No. 7 Warren street, in said city of New York, under and in pursuance of the annexed notice.

A. J. De Lacey, notary public, being sick and unable to attend, and L. A. Geigerrich being actually engaged in court.

N. Y., Sept. 16, 1880.
(S'g'd) FREDERICK EDER,
Notary Public.

NEW YORK, *Sept.* 16*th*, 1880—at 10.30 a. m.

Present: J. C. Clayton, Esq., for complainants.

HAMILTON WARD, being duly sworn, in answer to interrogatories proposed by Mr. CLAYTON, deposes and says:

Q. 1. What is your age, residence, and occupation?

A. Hamilton Ward; I am 51 years of age; reside in Belmont, New York, and I am a lawyer.

Q. 2. Were you at any time Representative in Congress from the twenty-seventh district in New York; and, if so, during what period?

A. I was Representative from the twenty-seventh district, New York, from the 4th of March, 1865, to the 4th of March, 1871.

Q. 3. Did you make a deposition on or about the 30th of April, 1873, before C. S. Thomas, U. S. commissioner, in a suit under the Green driven-well patent, between William D. Andrews and others, complainants, and Theodore A. Carman, then pending in the U. S. circuit court for the eastern district of New York?

A. I did.

Q. 4. Are you acquainted with Nelson W. Green, formerly of Cortland village, N. Y., and who at one time was colonel of the 76th Regiment of New York State Volunteers?

A. I am acquainted with him, and understand him to have been colonel of that regiment.

1370 Q. 5. When you were the Representative of your district in Congress and while you were at Washington did you or not receive a letter from the said N. W. Green inclosing a written application, addressed to the Patent Office Department, for a patent for the so-called driven well, said letter requesting that you would file the application in the Patent Office with the view to his obtaining a patent for the process of making such wells? If so, state at what time such letter and application were received; also state what you then did in regard to Colonel Green's request.

A. I did receive such a letter from Mr. Green; it was dated January 3, 1866, and my best recollection is that papers pertaining to a patent for making a well accompanied the letter; I don't remember the precise nature of them; I think I can say that this letter was received by me in the month of January, 1866; I took the papers to the U. S. Patent Office and handed them to the Commissioner, Hon. T. C. Theaker, and told him that Green was an acquaintance of mine, and as he was without means I would like to have the application papers examined informally, and that if Green was likely to get a patent I would pay the usual fee; that Green could not afford to pay for it unless there was a likelihood of getting a patent; Mr. Theaker said he would have the examination made and would advise me of the result.

Q. 6. What did you do with that letter of Col. Green?

A. I produced it on my former examination, referred to in the third interrogatory; it was marked "Complainants' Exhibit H. W." in that case, and was left by me with the magistrate who took that testimony.

Q. 7. State what you next did with reference to this matter.

A. I called upon the Commissioner, I think, in the fore part of
March, 1866. The subject of these papers was brought up, but the
Commissioner could not find them. I spent several hours trying to
find them, but without success. My best recollection is that when I
left the Commissioner said he would have further search
1371 made, and if they were found he would advise me. I after-
ward received a letter from the Commissioner, dated March
9th, 1866, and wrote a communication to Col. Green upon it, and

forwarded the letter and communication to Col. Green by mail within a day or two, I think, after the receipt of the letter. At the time I so called upon the Commissioner I had received from George W. Green, Col. Green's brother, fifteen dollars to pay the usual fee for filing the application. I advised Col. Green that when his new papers came on I would pay the fifteen dollars and file them. George W. Green was a neighbor and acquaintance of mine, resided in my district, and paid me the fifteen dollars on his brother's, Nelson W. Green's, application. Judging from my knowledge of Col. Green's handwriting as contained in other letters which I have received from him, I have no doubt that the letter of January 3d, 1866, was in his handwriting.

Q. 8. Examine the papers now handed to you and state whether they are correct copies of the said letter of Col. Green to you, dated January 3d, 1866, of the letter of Commissioner Theaker to you, dated March 9th, 1866, and of your communication upon the same.

A. I have examined them and compared them with what purport to be printed copies of the said letters and communication, as found at pages 1334, 1335, and 1336 of complainants' record in the case of Andrews *et al. v.* Carman, above referred to, and I have no doubt that the said copies are correct copies of the originals.

(Complainants' counsel puts the said copies in evidence, and they are marked "Complainants' Exhibit H. W., F. E., notary public," and "Complainants' Exhibit H. W. No. 2., F. E., notary public.")

(S'g'd) HAMILTON WARD.

Subscribed and sworn to before me this 16th day of September, 1880.

[SEAL.] (S'g'd) FREDERICK EDER,
Notary Public (29), *N. Y. Co.*

Adjourned to Sept. 17th, at 2 p. m.
(S'g'd) FREDERICK EDER,
Notary Public.

1372 COMPLAINANTS' EXHIBIT H. W. F. E., Notary Public.

U. S. C. Court, Eastern Dist. —. In Equity.

WM. D. ANDREWS *et al. vs.* THEODORE A. CARMAN.

Copy.

Complainants' Exhibit H. W. C. S. T., U. S. Com'r.

CORTLAND VILLAGE, N. Y., *Jan. 3rd,* 1866.

Hon. H. Ward.

MY D'R SIR: I hand you the papers for my patent. I have made them myself, which my boy has copied, because Waters is too busy just before the term, and in fact there is no good patent lawyer here; hence if there is anything wanting it is my fault. I thought or I

wrote you that I should need a copy of Mudge's specifications
1373 & claim, but I know mine & I believe you will find it nearly
in form. I send it on at once in order to test it. I think no
model or drawing or model will be necessary, as what I claim is a
method which I have fully set forth. As near as I can get at the
claims of Mudge and Suggett without a copy of their papers is this
(*i. e.*): Mudge's claim and mine are exactly identical, while Suggett's
only covers a "perforated pipe" constructed as a drill, with which
neither of ours will interfere as a principal, but which he cannot use
without infringing my claim. I claim the "perforated tube" only
to let in the water more freely, which would be implied if it was not
mentioned, my general claim being allowed. Everything
1374 Mudge has is mine. He has not an original idea upon the
subject. I have thought best to set forth the facts. The his-
tory of my invention — in my affidavit, as I wish to put it on record
at once, not knowing what may happen.

Ward, there is money in this and the invention is mine. Every-
body here so understood it. The sooner the claim is filed the better.
Until we get the letters nothing had better be said—quiet. If you
find my papers all right put the thing in motion; but you want
$15. That I have not got to send to-day and cannot send it until after
the term, and if you find everything in shape but that (*i. e.*) money
write to George and tell him what you want. He must advance it
rather than the thing should be delayed. If you can get my
1375 War. Dep. claim allowed, or a part of it, I would come down,
if we get this through, and help you get a "good job" — the
Government, which should pay me something for this invention for
the use of the army. It is worth $50,000 per year to an army of
25,000 men stationed in Texas or in dry sand or swampy counties.

I shall be glad to be informed if you get this all right. Waters thinks well of your point and has drawn a plan in accordance. If you have any authorities let us have them.

Very truly, N. W. GREEN.

Ward, should not even my enemies see that I am worth more saved than crushed?

1376 COMPLAINANTS' EXHIBIT H. W. No. 2. F. E., Notary Public.

Complainants' Exhibit H. W. No. 2. C. S. T., U. S. Com'r.

U. S. PATENT OFFICE, *March* 9, '66.

Hon. Hamilton Ward, House of Representatives.

SIR: No papers relating to the case of Mr. N. W. Green, of which you have spoken, can be found in this office. The filing of a complete application will elicit the fact of any conflicting application.

Respectfully yours, T. C. THEAKER,
Commissioner.

I have had much trouble with this matter, not being familiar with the business of preparing papers for Patent Office. I asked the Commissioner to refer the papers to the examiner to see if they

were correct in form, stating to him that when it was
1377 ascertained they were I would pay the $15 and file the papers.
He said he would do so. I called again, and the Commissioner informed me that he had just seen the party in charge and he would report to me in a day or two at the House. I went home to circuit, got back, and day before yesterday spent three hours in various places in the Patent Office trying to find the papers. They could not be found anywhere. The Commissioner had forgotten where he had left them, and after ransacking all their time I employed a young man in the office to continue the search. The reply from the Commissioner of the result I send you. George gave me $15 to pay fee, which I have. You must employ some
1378 good patent lawyer to make out your papers *de novo*. Send
them on. I will pay the $15, and file them.

Resp'y yours, HAMILTON WARD.

Has any one interested against you been on here?
Allegheny Co., N. Y.

1379 U. S. Circuit Court, District of Iowa. In Equity.

WM. D. ANDREWS *et al.* *vs.* GEORGE HOVEY.

SAME *vs.* OTHERS.

Testimony in rebuttal taken on behalf of complainants before me, Frederick Eder, a notary public, duly commissioned and sworn, in and for the city & county of New York, at the office of J. C. Clayton, Esq., No. 7 Warren Sts., in said city of New York, under and pursuant to the annexed notice.

NEW YORK, *Sept.* 17, 1880—2 p. m.

Frederick Eder, notary public.
Present: J. C. Clayton, Esq., counsel for complainants.

Q. 1. What is your name, residence, and relation to Nelson W. Green, the patentee of the driven well involved in this suit?

A. Julia A. Green; residence, city of New York; I am the wife of Col. Nelson W. Green; we were married in 1849.

Q. 2. Where did you live in 1861?

A. Just outside of Cortland village, in New York State, about a quarter of a mile from the agricultural fair grounds.

Q. 3. Have you heretofore testified as a witness in the suit under driven well patent of Andrews and others against Carman in the U. S. circuit court for the eastern district of New York, and also in a similar case against Wright and others in the district of Minnesota?

A. Yes.

Q. 4. What knowledge, if any, have you of the invention by your husband of the driven well as patented to him and of an experimental well made on his grounds near your residence in 1851?

A. Previous to that experiment, which was made in the month of October, 1861, I had frequently heard him speak of process by which he proposed to make a well and obtain water. I recall distinctly one conversation at our house, when several officers of his regiment were present, a few days before that experiment was made, when he said to those officers, taking a pencil from his pocket: "Suppose this pencil was an iron bar; you could drive it into the earth, couldn't you? And, if you drove far enough, you would drive it into water. Then, if you withdraw the rod and insert a tube, you would have a well, wouldn't you?"

Q. 5. Was any objection made or discussion had in regard to his method of making wells being practicable; and, if so, by whom?

A. There were objections made by Mr. Mudge and Mr. Carmichael. There were others present, but I do not remember whether others made objections.

1380 Q. 6. What were those objections and how did your husband meet them?

A. The principal objection that I remember was that artesian wells had always been bored, and that by the means he proposed they could probably not obtain more than a pailful of water at a time, if any. He replied that in boring it would require too much machinery for removing the earth, but that in driving the earth would be packed. I cannot recall his reply to the other objection.

Q. 7. Did you see that experiment made? Where was it made and who were present?

A. I did not see the work done. It was made on my husband's land, back of the house. I saw Mr. Mudge and Mr. Carmichael drive into the yard in the morning with tools and materials. My husband was there when they came, and I saw him with those parties standing by the well soon after it was made, on the same day.

Q. 8. After their experiment and before your husband's application for a patent did you know or hear of any other parties being employed in making wells by this process?

A. I heard my husband speak of a well being made by his order in the camp ground of his regiment, shortly after this experiment, for the purpose, as he said, of furnishing water for his regiment and more fully to test the principle of his invention. With that exception I neither knew or heard of any parties making wells by his process until I heard from him, in the latter part of the year 1865, that he then had been recently informed that Mr. Mudge and Mr. Suggett were making such wells.

Q. 9. Do you remember the shooting of Captain McNett, in the camp of the regiment on the fair grounds, in the early part of December, 1861?

A. I do.

Q. 10. What was the result of that shooting upon the members of the regiment and the people of that community?

A. It created intense excitement. The community were divided in reference to it and very bitter feelings were manifested.

1381 Q. 11. Will you please state what knowledge or information you have of the events which followed that affair, arising and growing out of it, and from your intimacy with and observation of your husband under those difficulties? State how and to what extent they affected him.

A. My husband was suspended from the command of his regiment before it left Cortland; was reinstated while the regiment was at Albany, and after arriving in the vicinity of Washington was again suspended, placed under arrest, and finally deprived of his command. He returned home in April, 1862. He was indicted by the civil courts for the shooting of McNett, and from that time on until his trial under the indictment, in May, 1866, he was continually harassed by this affair, and the animosities, divisions, suits, and dissensions in the community and in the church of which he was a member, all which grew out of it, and he devoted his entire time, thought, and mind to these troubles and devising means to secure his acquittal from the indictment, his reinstatement in command of his regiment, and relief from his suits and difficulties to the exclusion of all ordinary business. During those years, from 1862 to 1866, he was entirely unfitted for ordinary business, his troubles excluding almost all else from his mind, and he neither performed any labor nor attended to any business from which any profit or income was derived for the support of himself and family; his entire habits appeared to change; he dwelt continually upon his difficulties and troubles and could not seem to divest himself of them for any length of time, his conversation with friends who called inevitably running into that channel, whatever subject might be started. I would state that upon the question of his removal from the command of his regiment, that his having been educated at West Point seemed to cause him to greatly magnify its importance and consequences, and his persecutions for having done an act, the performance of which he seemed to consider was a stern duty in accordance with his military education, appeared to irritate and annoy him to a degree that, to a person not familiar with his position and antecedents, would have 1382 appeared entirely unwarranted; this peculiarity, referable, as I believe, to his education and the inability of others fully to appreciate his feelings on the subject, undoubtedly led in a great measure to his avoidance of society when at home, from which he was much of the time absent.

Q. 12. What was the change in Col. Green's habits after the shooting of McNett and during those troubles?

A. He was less sociable, more irritable and excitable, had less intercourse with the neighbors, studiously avoided general society, and instead of taking a lively interest in neighborhood and general affairs and his business, as he had previously done, he neglected all, dwelling continually upon his unjust dismissal from the regiment, his unwarranted indictment by the civil court, and his church troubles, on which subjects he was morbidly sensitive.

Q. 13. How did he support his family?

A. By savings previously made and by mortgaging his property and incurring debts.

Q. 14. Were there or not portions of his time from 1862 to 1866 when he was free from the absorption and the excitement you have described as caused by these troubles?

A. No periods of any considerable length; he was quieter when we were alone at home than when others were present, but a preoccupied, absorbed condition was at all times more or less apparent when he was not under the influence of immediate active excitement.

Further examination adjourned to September 18th, 1880, at 11 a. m.

(S'g'd) FREDERICK EDER,
Notary Public.

Examination continued at office of J. C. Clayton, Esq., at 11 a. m., Sept. 18th, 1880.

Present: Wm. D. Andrews on the part of the complainants; no one appearing on the part of the defendants.

1383 *Testimony of Mrs. Julia A. Green Continued.*

Q. 15. Of what church was your husband a member, and were you or not a member of the same church?

A. Grace Episcopal church, of which the Rev. Thomas G. Meachem was pastor, in the village of Cortland, and I was also a member of the same church.

Q. 16. Please give any particulars you may be able to do in regard to the animosities and dissensions that arose in the church, and what, so far as your husband was concerned, was the result in the church.

A. The difficulty in the church commenced from the fact of my husband being intensely loyal, while Mr. Meachem opposed the war, and instructed Mr. Green that the church required him to be peaceable, and insisted it was wrong for him to raise men to put down the rebellion. Mr. Green answered, "If the church is against the country it may go to hell." This was the commencement of the church difficulty. Captain McNett, of my husband's regiment, was also a member of the Episcopal church, but not of this church. The members of the church became divided in feeling on the subject of the war, which feeling became very bitter, and was greatly enhanced by the fact of the shooting of Capt. McNett by Col. Green, and the final result, as regarded my husband, was that he was suspended from the communion. Col. Green then brought suit for libel against the Rev. Mr. Meachem, which never came to final trial; but after the disagreement of the jury in the McNett case, by agreement, both suits were withdrawn and the matter was ended, so far as any legal action was concerned.

Q. 17. Had the intense excitement and bitterness you have spoken of died out before this trial of Col. Green under the indictment?

A. It had not. It gradually died away to a great extent after the trial.

Q. 18. Who were the officers of the regiment who were present at the conversation at your house when, as you have stated, Col. Green suggested the making of a well by the new method that he then proposed?

1384 A. Mr. Byron Mudge, James C. Carmichael, Heman F. Robinson; A. J. Todd was also present. He was a member of the drill squad, but was not an officer.

Q. 19. What led to the discussion in regard to obtaining water at this time?

A. It was in consequence of the then recently reported capture of Col. Mulligan at Lexington, Missouri, which was said to be occasioned by the scarcity of water. My husband said some means must be devised for obtaining water for the regiment.

Q. 20. What, if anything, was said at that meeting in regard to making an experiment to test the feasibility and practicability of procuring water from the earth by the method or process that Col. Green there suggested and explained?

A. It was there arranged that a portion of the officers should make an experiment on my husband's premises to test the practicability of his plan. This arrangement was made at Col. Green's suggestion and by his request.

Q. 21. Did he or not give directions as to what was to be done, and where?

A. He did give such directions to have the experiment made on his own premises.

Q. 22. Who did Col. Green direct to make that experiment?

A. Mr. Mudge and Mr. Carmichael.

Q. 23. How long after this conversation was it until the experiment was made?

A. Within a day or two.

Q. 24. Did you see those parties present and making that experiment?

A. I saw them drive into the yard with tools, but did not see the experiment made. After the well was finished I saw them standing at the well with my husband.

Q. 25. Did you or not, at or about the time that experiment was made, hear any conversation between your husband and the parties who made the experiment in regard to it, and particularly as to its success? And, if you did, please state what you heard.

A. I heard my husband say as they turned away from the well on completing the experiment, "Now, boys, don't you see this is a success?"

1385 Q. 26. By what name was the encampment of the 76th regiment upon the fair ground at Cortland then known?

A. Camp Campbell.

Q. 27. When your husband told you, as you have stated, in the latter part of the year 1865, that he had then been recently informed that Mr. Mudge and Mr. Suggett were making wells such as had been made by his method or process, the one near your house and the other upon the camp ground, what action, if any, did he take in the matter?

A. He himself drew up and wrote out an application for a patent, which he forwarded to Washington.

Q. 28. When did he make and forward this application?

A. In the early part of January, 1866.

Q. 29. Had you or not ever heard or known of any wells being made like the two you have mentioned as having been made by your husband's directions and under his method, other than the two you have named, from that time down to the time in 1865, when you have stated that your husband told you that he had then recently been informed that Mudge and Suggett were making such wells?

A. I had not.

Q. 30. Did your husband claim that the method or process he described to the officers at your house for obtaining water from the earth was new and that he himself originated it?

A. He did.

Q. 31. Did you or not, previously to 1865, ever know or hear of any one else claiming to be the inventor or originator of that method?

A. I did not.

Q. 32. You have spoken of Col. Green being present during the making of the experiment on his premises near your house; please state, if you know, how long he was present during the making of that experiment?

A. I saw him there at two different times, but how long he was present I do not know.

Q. 33. Did you ever hear Col. Green express any intention of abandoning his invention of this new process of obtaining water, or dedicating it to the public?

1386 A. I did not.

Q. 34. You have spoken of the shooting of Capt. McNett, and of the excitement growing out of that shooting; by whom was that shooting done?

A. By my husband, Col. Green.

Q. 35. What do you know concerning any excitement in the camp of the regiment after that shooting, and of the fears that were entertained of an attack upon the camp, and the preparations that were made to defend it and Col. Green?

A. There was great excitement in the camp, and to guard against an attack that they feared might be made against the regiment and my husband, they sent to Truxton for a cannon, and stationed sentinels between the house and camp ground, and also around our house, for Col. Green's protection.

Q. 36. You have spoken of your husband's troubles and change of habits in consequence of the difficulties arising from the church matters and the shooting of Capt. MeNett; please state what was your husband's habit during those years from 1862 to 1866, as to observing what was occurring about the village, and when at home as to conversing upon and taking an interest in village and neighborhood topics.

A. He appeared not to observe or interest himself in such matters or topics, and consequently when at home he did not converse upon such matters.

Q. 37. What had been his practice and habit in that respect previous to his connection with the 76th regiment and the time of the shooting of Capt. McNett?

A. He was always interested in town matters, and was of a very social turn of mind and mixed and associated freely with his friends and neighbors.

Q. 38. During the years from 1862 to 1865, was he or not, during any of the time, free from the absorption and excitement that you have spoken of?

A. He was never entirely free, but at some times more than at others.

Q. 39. What portion of the time during those years was Col. Green absent from home and from the village?

1387–1398 A. A large portion of the time; in some of those years the greater portion of the time.

Q. 40. What were his habits as to visiting in the village during those years?

A. I do not remember of his making more than one or two visits during that time.

Q. 41. Did you yourself continue to visit among your friends and acquaintances in the village during those years?

A. I did more than he did, but not as much as formerly.

Q. 42. When did Colonel Green obtain relief from this state of mind you have described as arising from the troubles you have named?

A. Not until after the trial on the indictment in 1866.

Q. 43. Did he appear to be at once relieved, and did he return to his former social habits, or was the change gradual?

A. He was in a great measure relieved at once; he seemed to have a great load taken from his mind, but, as I believe, in consequence of the continued strain and excitement he had been subjected to and the reaction consequent upon the relief, he was left in a weak and worn condition, which terminated in an attack of typhoid fever, from the effects of which he did not fully recover for about two years.

Q. 44. Please state who composed your family in 1861 to 1866.

A. My husband, myself, and four children.

(Signed) JULIA A. GREEN.

Subscribed and sworn to before me this 18th day of September, 1880.

[SEAL.] (Signed) FREDERICK EDER,
Notary Public (29), *N. Y. Co.*

1399 JUDSON C. NELSON again called for complainants, and being duly sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is Judson C. Nelson; aged 56 years; residence, Truxton, Cortland county, New York, and occupation, physician and surgeon.

1400 Q. 2. Please state how long you have been a practicing physician and surgeon, and where.

A. I have practiced medicine and surgery 32 years at Truxton, N. Y., except three years in the military service.

Q. 3. Please state whether during this period you have held any, and, if so, what, positions of public trust, and when.

A. I have held the position of supervisor of my town of Truxton for nine consecutive years now—since 1872. I represented this assembly district in the State Legislature in 1876.

Q. 4. You say that you were in the military service for three years; state, if you will, what three years and in what capacity.

A. I was commissioned the 11th day of October, 1861, as surgeon of the 76th regiment of New York Volunteers. My appointment as such was of that date, but my commission was dated some time in January, 1862, with rank to date from October 11th, 1861. During the time from my appointment I was in service as the surgeon of that regiment.

Q. 5. That regiment was raised and quartered here in Cortland, under the command of Colonel Nelson W. Green, in the summer and fall of 1861, was it not?

A. My recollection is that the organization of that regiment was begun in September of 1861; my connection with it as surgeon began the 11th of October, 1861. I was appointed as surgeon by the surgeon-general of New York State, Dr. S. O. Vanderpoel.

Q. 6. State whether you spent any time with the regiment while quartered here in Cortland and prior to its removal, by way of Albany, to the field, in the fall or early winter of 1861.

A. I did.

1401 Q. 7. When did you become acquainted with Colonel Green, and how long and how intimately since that acquaintance began have you known him?

A. I think I first knew him and became acquainted with him in September of 1861; from that time I knew him as I knew other men in the regiment until about February, 1862.

Q. 8. State whether your acquaintance with him began as the acting colonel of the 76th regiment.

A. I think at the time I was first introduced to him the regiment was not sufficiently organized to have a colonel. I think that soon after my acquaintance with him began he was appointed commandant of the recruiting post here at Cortland, and afterwards became the colonel of the regiment.

Q. 9. State, if you please, if you left with the regiment when it departed from Cortland on its way to the field, and how long you continued with it, and whether you did so continue with it until after Colonel Green's separation from it.

A. I left here with the regiment and remained with it until the 10th of July, 1862, when I was obliged to resign on account of ill health and go into another branch of service—the hospital department. I remained with the regiment until after Colonel Green was discharged.

Q. 10. Now, Doctor, please state how well and intimately you became acquainted with him during his connection with the regiment.

A. I knew him pretty well, as well as a man would, naturally, who camped together; our relations were always very pleasant. We knew each other very well, but, perhaps, not intimately. We consulted together with regard to the men and the affairs in the medical department of the regiment.

Q. 11. Please describe Colonel Green as you first knew him when you became connected with the regiment and before its departure from Cortland, and particularly with reference to his mental characteristics, as you observed them at that period.

1402 A. I should judge him then to be about 35 to 40 years of age; he appeared to me as being a very bright, affable, and genial gentleman when I first knew him; he acted enthusiastic.

Q. 12. How was he in conduct and conversation—whether slow and considerate or earnest and impulsive? Please describe him in this respect, according to your own ideas and observation in the earlier part of your acquaintance with him.

A. I remember him as being earnest and impulsive on my first acquaintance.

Q. 13. Did you know about the shooting affair by Colonel Green of Captain McNett, occurring here at camp in Cortland, for alleged mutiny or disobedience of orders?

A. I was not in camp at the time of the shooting. I was in my quarters at the Cortland house in Cortland village. I was summoned to camp to dress the wounds of Captain McNett; I heard of the shooting, but knew nothing of the circumstances of the shooting.

Q. 14. State whether you heard of a new method of well-making that had been adopted in producing a well upon the fair ground and camp of the regiment; and, if so, state which occurred first, according to your knowledge and recollection, the putting down of the well or the shooting of McNett by the Colonel?

A. My attention was called to the well question before I saw the well by Colonel Green, I think, if my memory is correct, and I think it is. It made an impression on me at the time. He came into my room at the Cortland House (Colonel Green) and says to me in his usual enthusiastic way, "Doc, we have got a nice thing to take with us; we have a pipe that we can drive into the 1403 ground whenever we go into camp;" and, referring to a report that was then prevalent in the camp about the poisoning of springs and wells by the rebels, he said: "We will secure pure water." Perhaps I do not give his exact phraseology, but that is the import of it. I think he said that one of our men that is going with us is going to put it down. He mentioned Byron Mudge as being the man; afterwards I saw the well. I have no recollection as to whether it was before or after the shooting affair that I saw the well.

Q. 15. Are you able to state whether it was near or remote from the date of the shooting affair—whether before or after?

A. I do not think I can state the time in relation to the shooting affair.

Q. 16. Are you able to state, or not, whether the time when Colonel Green called your attention to this well was after or before the regiment departed from Cortland to the field in the fall of 1861?

A. It was before we left. The conversation with Colonel Green, to which I have referred, was while we were encamped here at Cortland.

Q. 17. You say you heard of the shooting affair of McNett, and was called upon to dress his wound; now, please state, Doctor, what your knowledge is, from observation here in Cortland and vicinity, as to the result or results of that affair, as to Colonel Green and his position in the regiment?

A. It produced a wonderful excitement in the regiment and in the town, as I remember it. Colonel Green was arrested by the civil authorities. General Wood, of Livingston county, was called here. The regiment went to Albany under Wood's command, and there was a court of inquiry there. I went to Albany with the 1404 regiment. I do not remember how long we were there; two or three weeks, I should think. From Albany the regiment went to New York; camped in the park. We then went to Riker's Island. It is my recollection we were on the island a week or ten days. We then went to Washington. The result of the court of inquiry at Albany was the restoration of Green to his command, and he went to Washington in command of the regiment.

Proceedings adjourned until Tuesday, September 14th, 1880, at 9 o'clock a. m., at this place.

TUESDAY, *September 14th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Complainants appear by Noah J. Parsons; defendants do not appear.

By request of complainants, proceedings held open for the appearance of the witness Judson C. Nelson until 10.45 o'clock a. m., at which time witness appears.

Complainants appear by Hon. Milo Goodrich; defendant appears by John W. Suggett, Esq.

Examination of JUDSON C. NELSON resumed:

Q. 18. Please state, Doctor, what is the function of the surgeon of a regiment, and what your duties were when you became the surgeon of the 76th regiment.

A. The surgeon has the general supervison of the sanitary and health regulations of the regiment. He provides hospital accommodations, causes the sick and wounded to be treated, cared for, and nursed; he has the care of both soldiers and officers in his department, and his authority therein is independent of the commandant of the regiment. I exercised those functions with respect to the 76th regiment.

1405 Q. 19. Did you have the care, and take it, over the regiment generally, including both men and officers?

A. I did.

Q. 20. After the regiment reached Washington, was Colonel Green again arrested and made the subject of a court-martial or a court of inquiry as the commandant of the regiment?

A. He was.

Q. 21. At what period of time, as near as you are able to state?

A. I think it was in the first part of February in the year 1862. I have nothing to refresh my recollection.

1406 Q. 22. You may state, Doctor, whether you were a witness before the inquiry, whether by court-martial or otherwise, which was had there at Washington in respect to Colonel Green.

A. I was.

Q. 23. State further, if you please, whether, after that proceeding was had there, Colonel Green ever had the command of the regiment, or thereafter continued in the military service of the country, so far as you know.

A. He never had the command of the regiment after that, but I think he remained in the service—military service—until about the first part of June, 1862.

By Mr. SUGGETT:

Q. 24. Do you understand that the proceedings of that military court are a matter of record?

A. I suppose they are, or are in writing on file.

Q. 25. Do you understand also that any order made upon any alleged finding of that court is also a matter of record?

A. I suppose it is, or is in writing on file.

1407 Q. 26. Was the testimony that you gave before that military court reduced to writing in your presence and subscribed by you?

A. It was reduced to writing, and it is my recollection that it was subscribed by me, but I will not swear positively as to that.

Proceedings adjourned until 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Complainants appear by Noah J. Parsons, Esq.

By request of complainants, proceedings are held open to await the appearance of Hon. Milo Goodrich until 2 o'clock p. m., at which time complainants appear by Hon. Milo Goodrich. Defendant appears by John W. Suggett, Esq.

Direct examination of JUDSON C. NELSON resumed:

Q. 27. Under what officer or department of Government was the court-martial or court of inquiry, whichever it was, made, as you understood?

A. I understood that it was a court-martial or a commission appointed by the Secretary of War to take evidence and report to him; I may possibly not be correct about that, but it was my understanding.

Q. 28. Do you know whether there was any action, and, if so, what, on the part of the officers of the regiment, leading to that inquiry?

A. There was action taken by the officers, but it is so long ago that I am unable to remember whether it was a petition signed by the officers of the regiment to have Colonel Green removed, or whether there were charges preferred against him.

Q. 29. Now, Doctor, please state as to the mental condition of Colonel Green as it existed from your observations, after the time of the McNett shooting down to the time of his discharge from the
1408 service, giving details as to times within this period, according to you knowledge and observation.

A. He appeared to be under unusual mental excitement. I do not know as that dated particularly from the time of the McNett shooting. He appeared to be excited at times before the shooting, more than a man would ordinarily. I think, with the growth of the regiment and the increase of responsibilities and perplexities of the overwork and details of the orginization, he grew more excitable and irascible, so much so that he seemed to lose control of himself and his actions at times; when anything was going wrong, or when he met with any obstacles, this was the case.

Q. 30. State whether this condition of excitability increased or not after the regiment left Cortland and down to the time of his final discharge from the army.

A. I think it did increase until the time of his suspension; after that he went out from under my observation.

Q. 31. Do you mean his suspension that occurred at Washington?

A. Yes, sir.

Q. 32. State, Doctor, what you observed in his conduct and conversations immediately and shortly before the proceedings were taken at Washington for his removal from the command of the regiment, as you have stated?

A. His manner was unusually excited; he gave some unusual orders; he was unusually taciturn at times; on some days he
1409 appeared naturally and well; it used to be remarked that "this is one of the Colonel's good days," and again, when it took the other turn, it was remarked that "there was going to be trouble that day;" he seemed to entertain the idea that the officers with whom he was connected, both superior and inferior, were trying to overreach him or were plotting against him; he carried that idea in his conversation.

Q. 33. In your practice as a physician, has it occurred that you have had for patients persons afflicted with mental aberration, and have you been called upon, in the relations of personal practice, to administer therefor?

A. I have had that class of patients, and have administered to them.

Q. 34. State whether, after the arrival of the regiment at Washington in the early part of 1862, charges of insanity were circulated in camp against Colonel Green.

A. I think insanity was one of the charges. I think there was a set of written charges circulated among and signed by the officers. I do not think they were circulated among the men. I was not in a position to hear much of the discussion among the men; it was discussed more or less among the officers. I think insanity was one of the list of written charges against him. The question of Colonel

Green's insanity was discussed among the officers of the regiment.

Q. 35. Please state what change, if any, you discovered in Colonel Green's conduct and conversations from the time he left Cortland with the regiment down to the time of his suspension from command at Washington on the charges referred to.

A. I do not recall any particular changes other than what I have already answered.

1410 Q. 36. Now, Doctor, from your knowledge and observation of Colonel Green and his conduct and conversations, particularly after the arrival of the regiment in Washington in the winter of 1862, and thereafter as long as you continued to see him, what is your opinion, as a physician, as to whether Colonel Green, at the period referred to, was rational in his conduct and conversations, or otherwise?

A. It is my opinion that while he had lucid periods and acted well under favorable circumstances he was rational; under adverse circumstances he would lose control of himself and his actions.

Q. 37. During that period, viz., from the time when the regiment arrived in Washington, in the winter of 1862, down to the time of his suspension from command there, state whether you had at times seen him when he exhibited, in conduct and conversation, irrationality of mind.

A. I have, or I did.

Direct examination of this witness closed.

Complainants' counsel, Mr. Goodrich, here leaves the examination in charge of Mr. D. L. Hurlbut, Esq., who appears for complainants.

Cross-examination:

X Q. 38. Have you ever been sworn in this or any other case wherein this pretended driven well patent was at issue?

A. I have not.

X Q. 39. Where did you reside from 1871 to 1876?

A. At Truxton, Cortland county.

X Q. 40. How far is Truxton from Cortland village, where you are now testifying?

1411 A. About twelve miles.

X Q. 41. When did you first know that you were to be a witness in this case?

A. A little more than a week ago.

X Q. 42. How did you then know it?

A. Mr. Goodrich and Mr. Parsons and Mr. Andrews called at my place and said to me that they had discovered that I had given some evidence at Washington in 1862 in relation to the mental condition of Colonel Green, and wanted to know if I remembered the circumstances of that inquiry and import or substance of that evidence; if so, they desired to call me as a witness.

X Q. 43. When did the 76th regiment go into camp on the fair ground in this village?

A. My recollection is that it went into camp in the first part of September, 1861, but I do not know as I am correct about it.

X Q. 44. Did the regiment have any organization prior to the time that the camp was formed?

A. I think not.

X Q. 45. On reflection will you say that it was not the 26th of September, 1861, that a camp was first formed for this regiment on the said fair ground?

A. That possibly might have been the time.

X Q. 46. After that camp was first formed were not soldiers coming in from all parts of the county and adjoining counties up to the time when the regiment left? Please state generally what were the facts in this connection.

A. They were enlisting and coming in from different towns in this county and from other counties after my connection with the camp; I did not go into camp when it was first formed; my connection with the camp commenced the 11th of October.

X Q. 47. From the time you first became acquainted with the camp up to the time when the regiment left, state whether or not that camp was the most public and common place in the village; state, also, if there was not a constant stream of persons and men passing backwards and forwards from the camp to the village, 1412 and *vice versa;* state also if the relatives and friends of the soldiers and other civilians, both men and women, were not constantly, during the day-time, in and about the camp; I will confine your answer from the time you first became connected with the regiment.

A. At the time of my first connection with the regiment there was a guard mounted at the gate, and people were not permitted to pass at will onto the grounds or the soldiers to pass off, but they did so very generally by permits from the colonel or officer of the day, as I remember it. I think it continued so during the time we were encamped there, excepting, perhaps, one or two days during the McNett affair, when the permits were restricted. I think the citizens of the village were generally permitted to go on the camp grounds by obtaining permits. I think a large number availed themselves of this privilege.

X Q. 48. About how many men were there in the regiment at the time you first became connected with it on the 4th of October, 1861?

A. I have no means of knowing, but my impression is that there was between two and three hundred men enlisted at that time.

X Q. 49. This camp was then considered a military post, was it not?

A. I think it was, or a recruiting post.

X Q. 50. When were you mustered into the service of the State or of the United States?

A. The muster was subsequent to my appointment and report for duty, but I cannot remember the date.

X Q. 51. What is the date of your commission?

A. I do not remember; it was in January, 1862; the officers of the regiment received their commissions while we were in Albany.

X Q. 52. Up to the time of receiving your commissions you were but a *quasi* military organization, were you not?

A. I think, after our appointment and muster into the United States service, we were an organization as much as we ever were.

1413 X Q. 53. Then you attach significance to be mustered into the service; prior to that time were you but a *quasi* military organization?

A. I understand that we were in the State service until the date of muster. We were organized as State troops; from the date of muster we were in the United States service. I do not think the mustering affected the organization. We exchanged service.

X Q. 54. Were there not some persons who voluntarily donated their services and acted in the capacity of officers in drilling men and perfecting the organization of the regiment, while in Courtland village, who were not appointed or enlisted in the State service, nor mustered into the United States service?

A. I do not recall any such cases now, but there might have been; on reflection I think there were such individuals who acted there, but who did not subsequently receive appointments.

X Q. 55. Was not this so as to Byron Mudge and James C. Carmichael?

A. I think Byron Mudge acted there in the capacity of a lieutenant, expecting to receive an appointment or commission, but in some way failed. I do not know how. J. C. Carmichael, according to my recollection, received from the State the appointment of lieutenant-colonel or major. When the regiment arrived at Albany it was not up to the requisite number of men, and we were consolidated with another skeleton regiment from Otsego county, the Otsego regiment having a full complement of officers, and in this consolidation Carmichael was rendered a supernumerary and was thrown out; Colonel John D. Shaul, of the Otsego regiment, was commissioned lieutenant-colonel of the 76th regiment. I understand that Carmichael was appointed lieutenant-colonel in another regiment.

X Q. 56. When was it that Colonel Green came down to your quarters at the Cortland House? Fix the time as near as you can.

A. I am unable to fix the time.

X Q. 56. What time of day was it that he came down?

A. My impression is that it was in the evening.

X Q. 58. Did he there claim that he had invented or discovered this new method of making wells?

1414 A. I do not think he did.

X Q. 59. Who was present in the room at the time that he told you about this well?

A. My recollection is that Captain Grover was there, and I do not know but Chaplain Richardson, but I am not certain.

X Q. 60. Who showed you the well afterwards?

A. I do not remember.

X Q. 61. Did not Byron Mudge call your attention to it?

A. I do not remember that he did.

X Q. 62. Did the making of this well at that time become a subject of some talk and conversation among the officers and men and citizens, and did it appear to be generally known by them?

A. It was a subject of remark, but I do not know how generally it was known.

X Q. 63. Did you not hear Mudge's name frequently mentioned with reference to it?

A. I do not remember hearing his name mentioned in connection with it, except by Col. Green.

X Q. 64. After the regiment arrived in Albany, which was on the night of the 18th of December, 1861, about how many days had elapsed since Col. Green was relieved from the command of the regiment?

A. He was relieved a few days after the shooting. I do not remember the date.

X Q. 65. How long after you arrived in Albany was it before you left Albany for New York?

A. I should think it was three or four weeks. I have no means of knowing now.

X Q. 66. Did not Col. Green, immediately after the arrival of the regiment at Albany, apply to the Governor of the State to convene a court of inquiry for the purpose of investigating his conduct in shooting McNett, so that if found justified he might be restored to his command?

A. I so understood it.

X Q. 67. And did the Governor comply with that request?

A. I think he did.

X Q. 68. And were you not a witness before that court?

1415 A. I was not.

X Q. 69. Were you present?

A. I was not.

X Q. 70. And did that court make such findings that Col. Green was restored to his command?

A. That was my understanding.

X Q. 71. If the regiment, from the time that the officers and the men were mustered, was in the service of the United States how could a court of inquiry be convened by the Governor of the State?

A. I presume that they were not under the jurisdiction of the United States until they reported for duty at Washington.

X Q. 72. Did not Col. Green, as you understood, personally appear before that court of inquiry and conduct his own defense mainly, presenting a learned and exhaustive argument upon martial law applicable to the subject?

A. I am unable to state whether he appeared in person or by counsel. I was not present.

X Q. 73. After his restoration to the command the regiment was full to the standard number, was it not?

A. I think it was.

X Q. 74. And after being thus restored Col. Green assumed all the perplexities and responsibilities devolving upon the colonel of a full regiment; is not this so?

A. I think so.

X Q. 75. How soon after the Colonel's restoration was it that the regiment went to New York?

A. I do not remember as to the time.

X Q. 76. When the regiment was at Albany and its organization being completed, and it was preparing very shortly to leave, and Col. Green had just passed through the trial of the court of inquiry, was he not then under as much if not more excitement than he was subsequently in Washington after the regiment had passed into one of the forts there and had become accustomed to regular service and the usual duties and incidents of ordinary camp life?

A. I think he had a feeling of relief after that. The responsibility was less and the excitement was less while in Albany than afterwards or before we left here.

1416 X Q. 77. When did Col. Green become most excited by reason of the responsibilities consequent upon his being colonel of the regiment?

A. Aside from two or three days of this McNett embroglio here in Cortland, he exhibited more excitement when at Washington and going into camp and after going into camp at Washington.

X Q. 78. Was Col. Green imprisoned or restrained of his liberty for the shooting of McNett by the civil authorities?

A. I understood that he was under arrest, but not confined.

Proceedings adjourned until 7.30 o'clock p. m., at room 15 Messenger House, Cortland village, New York.

7.30 O'CLOCK P. M.

Convened pursuant to adjournment.

D. L. Hurlbut, Esq., appears for complainants; John W. Suggett, Esq., for defendants.

Cross-examination of JUDSON C. NELSON resumed:

X Q. 79. You have stated that there was a great deal of excitement immediately after the shooting of McNett. Did not the officers of the regiment, including yourself, sign a paper asking that Col. Green be not removed on account thereof?

A. I do not now remember of such a paper. The officers, including myself, were pretty generally in favor of retaining him, but I do not recollect of such a paper; I think the feeling among the officers would be to sign such a paper; I know I would myself.

X Q. 80. Then at this time his mental condition was such that you, as surgeon of the regiment, believed and considered him a proper person to command the same, did you not?

1417 A. I believed that the excitement under which he was laboring at the time would soon pass over and was only temporary, and when passed over that he would resume what had been his usual condition and conduct.

X Q. 81. Did you not, on or about this time, in a letter or petition to Governor Morgan, state that "Colonel Green, commanding the 76th regiment, is an earnest, patriotic, and Christian man; he is an energetic, thorough, and competent officer; he has the confidence and love of both his officers and men; we love him as a man, respect him as an officer, and will obey him as commander of his regiment?"

A. I think that was generally the sentiment among the officers and men of the regiment, which I shared with them.

X Q. 82. About nineteen years having passed, do you wish now to change your estimate of Colonel Green as quoted above, you having made the same at that time when everything was fresh in your mind?

A. My estimate of Colonel Green was changed in less than six months after that time; I do not wish to change it now; it was changed then by subsequent events.

X Q. 83. You, as surgeon of that regiment, did not, at or about the time of the shooting of McNett, recommend to Governor Morgan Colonel Green as being a fit person to command that regiment, believing that he was then suffering from any mental aberration, did you?

A. I did not believe at that time that he was suffering from any mental aberration; I considered it a rash act and committed under extraordinary circumstances, and believed, with other officers of the regiment, that it should be overlooked and condoned until followed by other indiscreet acts, which gave it the importance and weight that it subsequently acquired in connection with other acts which followed.

X Q. 84. Up to the time of making this statement, then, at or after the time of the shooting of McNett, you, as surgeon of that regiment, having in charge the health of its officers as well as men, had noticed nothing peculiar in the appearance, acts, or conduct of
Colonel Green which led you to believe or suppose that he
1418 was suffering from or had any derangement of his mind or
faculties in any way; please answer directly, is not this so?

A. I had noticed some peculiarities about Colonel Green, but it had not impressed my mind strongly, and did not occur to me at the time that he was deranged or mentally wrong.

X Q. 85. If he was "an energetic, thorough, and competent officer" at that time he could not have been suffering from any derangement of mind, could he?

A. I should think not.

X Q. 86. Did your observation of him consist in a professional way, or simply as an individual?

A. I might say both.

X Q. 87. Did you treat him for this difficulty?

A. I did not.

X Q. 88. Did you make any personal examination of him?

A. I did not.

X Q. 89. Then your only knowledge of him, in a professional way, was that you, as surgeon of that regiment, had him, with the rest, under your general care as regards their health; is this not so?

A. I think that is so.

X Q. 90. From the 11th of October, 1861, until the time the regiment arrived in Washington, about how many times a day did you see Colonel Green?

A. I could not state any number of times or make any estimate; I used to see him frequently during the day; some days more than others, when I was with the regiment; I was not constantly with them.

X Q. 91. When did you first begin to think that Colonel Green might be suffering from an aberration of mind?

A. Well, it was more strongly impressed upon my mind after arriving at Washington than before.

X Q. 92. Then, previous to that time you had not become convinced that Colonel Green had any mental aberration, had you?

A. I had no confirmed belief about it at that time.

X Q. 93. Do you remember that on the 16th day of Janu-
1419 ary, 1862, a flag or stand of colors was presented to the regi-
ment, at Albany, by Mrs. Samuel Campbell, of New York
Mills, by her son, S. R. Campbell, Esq.?

A. I have a recollection of the occurrence, but was not personally present.

X Q. 94. Do you know anything about the speech that Colonel Green made personally when accepting those colors?

A. Personally, I do not.

X Q. 95. Where were you at this time?

A. I do not remember; the stand of colors was presented at the Capitol, at Albany, and the regiment was marched down there, but I have no recollection of being present myself.

X Q. 96. I now hand to you a copy of Judge A. P. Smith's History of the 76th Regiment, in which — Colonel Green's speech on that occasion, and ask you to read it to yourself. (Witness handed the book by counsel.) Do you think that Colonel Green had any mental aberration when he made that speech?

A. I do not see any particular evidence of it in the speech.

X Q. 97. The occasion of that speech would be one which would naturally make him excited, would it not?

A. I think it would, but I think the emotions excited would be pleasurable, and the occasion would not be likely to call out any evidence of mental aberration.

X Q. 98. You stated on your direct examination this morning, did you not, that it was the pressure of excitement that only called forth these mental characteristics that you observed in him?

A. I think I did, or something to that effect.

X Q. 99. Do you now wish to testify that his mind was abnormal only when he was mad or things did not go to suit him?

A. His mind was abnormal when he was vexed or things did not go to suit him or when he met obstacles which produced an unpleasant effect on his mind.

X Q. 100. As long as everything went all right and there was
nothing in the path of Colonel Green to thwart his ambition
1420 he was a genial, affable, calm, and considerate gentleman,
which you described him to be on your direct examination;
is this not so?

A. I think he was, generally.

X Q. 101. Then he only had these fits of ugliness or madness occasionally, did he?

A. I do not desire to swear that he was ugly or mad in the sense that those words are generally understood or used. I considered him, when himself, a gentleman of culture and refinement.

X Q. 102. If he was himself when everything was running smoothly was it not an inherent quality of his mind to act as you have described him when he was crossed in any way?

A. I think he was naturally very impulsive, and under the pressure of much excitement would lose control of himself and his actions.

X Q. 103. During this time that you knew him he was a strong, healthy, robust man, was he not?

A. He was. I did not know of his having any physical disability.

X Q. 104. Was he sick any time while you knew him?

A. I do not now remember of his having any sickness.

X Q. 105. Then, his bodily health was sound, was it not?

A. So far as I know, it was.

X Q. 106. Then do you wish to eliminate from your answers given on your direct examination anything that there tends to assert that his bodily health or condition was impaired?

A. I do not remember of swearing on my direct examination that he had any physical disability.

Proceedings adjourned until Wednesday, September 15th, 1880, at 8.30 o'clock, a. m., at the office of M. Stanley Bierce, notary public, Cortland village, New York.

1421 WEDNESDAY, *September* 15, 1880—8.30 a. m.

Convened pursuant to adjournment.

Complainants appear by D. L. Hurlbut, Esq.; defendant appears by John W. Suggett, Esq.

Cross-examination of JUDSON C. NELSON resumed:

X Q. 107. You say that Colonel Green was dismissed from the service about the 1st of June, 1862; was he then as bad, as regards his mental condition, as he ever was when you knew him?

A. I have no knowledge of him—personal knowledge—since about 20th February, 1862.

X Q. 108. At or about the 20th of February, 1862, was he the worst, as regards his mental condition?

A. He was about as bad then as at any time that I remember.

X Q. 109. And in your judgment the subsequent finding of that court and the order of dismissal based thereon would be one of depressing effect upon Colonel Green and would tend to derange his mind to a high degree, would it not?

A. It would be likely to have that effect.

X Q. 110. From the theory that you have adopted as to the effect of joy or sadness upon his mind, would it not have that effect? Please answer directly.

A. I should think it would.

X Q. 111. I now show you again the "History of the 76th Regiment," written by Judge A. P. Smith, in which is set forth, in a learned and exhaustive brief, as Judge A. P. Smith has testified in this case was made by Colonel Green, personally, immediately after his dismissal from the service in 1862; I show you that brief and ask you to say whether Colonel Green was then suffering with any mental aberration?

A. I do not know.

X Q. 112. When the excitement was removed Colonel Green's mind would apparently become normal, would it not?

A. Possibly it might.

1422 X Q. 113. Was not this the case, as far as you observed?

A. It was, to a certain extent.

X Q. 114. These peculiar freaks of mind that you noticed while Colonel Green was at Washington you attributed to his position as colonel of the regiment there and the perplexities and responsibilities connected therewith, did you not?

A. I did.

X Q. 115. Andrew J. McNett, the person whom Colonel Green shot at Cortland, was transferred from the 76th regiment to another regiment, where he served through the war, did he not?

A. I so understand.

X Q. 116. Then you do not consider, do you, that it was the shooting of McNett alone that caused Colonel Green's mind to be troubled, but it was more especially the responsibilities and perplexities of his office as colonel of the regiment; is this not so?

A. I think that is so; I think that was one of the exciting causes.

X Q. 117. When the cause was removed which produced this effect upon the mind of Colonel Green he would again become rational, would he not?

A. I should think that would be the logical conclusion.

X Q. 118. (Question 117 repeated.) I ask for a direct answer.

A. If the cause were entirely removed I should think he would.

X Q. 119. Can you not answer the question directly?

A. I do not think I could.

X Q. 120. Then, after Colonel Green was dismissed the service and sent home, would he not, in your opinion, again become a rational man?

A. I think it would depend very much on whether he was satisfied that he was properly dismissed or not; whether that subject still weighed upon his mind.

1423 X Q. 121. You did not consider this mental derangement of Colonel Green as insanity, but simply a brief aberration of mind, caused by the excitement under which he was then laboring; is this not so?

A. I think that is partially, but not entirely, so.

X Q. 122. Did you not testify on your direct examination yesterday that it was simply the excitement that Green was then laboring under that caused him to lose control of himself for the time being?

A. My intention was to testify that that was the immediate exciting cause, but I do not know what words I used.

X Q. 123. Would Colonel Green's excitement be as great after he was relieved from his command at Washington as before?

A. I do not know; I think that would depend upon exciting causes.

X Q. 124. When did the regiment arrive at Washington?

A. I do not remember the date.

X Q. 125. Who composed the medical staff of the regiment?

A. Dr. George W. Metcalf and myself.

X Q. 126. Was Dr. Weaver connected with the regiment in any way?

A. He was.

X Q. 127. What position did he occupy?

A. He had a commission in the line; I think he was a lieutenant.

X Q. 128. Where is Dr. Metcalf now?

A. The Doctor is dead.

X Q. 129. At the time of the convening of this court-martial, or court of inquiry, at Washington, did you or any other medical officer make any personal examination of Colonel Green?

A. I did not; I cannot answer for the others.

It is here conceded by counsel here present that this witness may stand aside for the present, to allow him to return to Truxton to attend to professional engagements.

1424 SEPTEMBER 16, 1880—2 o'clock p. m.

Convened pursuant to adjournment.

Complainants appear by Noah J. Parsons, Esq.; defendant appears by John W. Suggett, Esq.

JUDSON C. NELSON produced by complainants, and his cross-examination resumed.

X Q. 130. Were you present at the trial of Colonel Green for shooting McNett at Cortland village, in May, 1866?

A. I was present during part of the trial.

X Q. 131. Was there any plea of unsoundness of mind put in by Colonel Green in his defense of that case? Please answer directly.

A. I do not know.

X Q. 132. You were not sworn there, were you?

A. I was not.

X Q. 133. You did not see Colonel Green after his dismissal from Washington until you returned home here, did you?

A. I did not.

X Q. 134. When did you return home?

A. I returned home in November, 1864.

X Q. 135. You do not know what his mental condition had been during this time, do you?

A. I do not.

X Q. 136. Do you think that this aberration of mind of Colonel Green's was general or simply applied to particular subjects, as, for instance, to military affairs and the excitement occasioned by the same?

A. I do not think it was general.

X Q. 137. Do you think that it applied most exclusively to military affairs?

A. I think it did, so far as I had an opportunity to observe him; it was the excitement in military affairs that brought him out.

X. Q. 138. And at times, even on these affairs, and very often, his mind was perfectly rational, was it not?

A. It appeared to be.

1425 X Q. 139. And, aside from the excitement incident upon his being colonel of that regiment, was he not, in your judgment, perfectly competent to manage and conduct his other affairs?

A. So far as I know.

X Q. 140. And would you not consider that in all that he did in his civil affairs he knew perfectly well what he was about and was as responsible for all that he said and done as any other rational person?

A. I think that might be so.

X Q. 141. You would not consider that if he made any contract relating to civil affairs during this time that he would not be responsible for his acts in making it by reason of any mental aberration, would you?

A. I should think he would be competent to make a contract.

X Q. 142. And you also say, do you not, that even as to his military affairs, from the time that you arrived in Washington he had very many lucid intervals?

A. I think he had.

X Q. 143. Comparing the time as to when he appeared perfectly sound and rational to that when he was suffering from mental aberration, after the regiment arrived in Washington, how do you say they compared?

A. I could not make any estimate of that.

X Q. 144. Will you swear that he was not apparently perfectly sound more than half the time?

A. Would not like to fix any definite time as to that.

X Q. 145. After the formation of the regiment and up to the time of the shooting of McNett, in your opinion, was not Colonel Green fully competent to enter into any civil contract?

A. I had not noticed anything to the contrary.

X Q. 146. And was this not so down to the time that you arrived in Washington, in January, 1862?

A. I had not observed anything to the contrary up to that time.

X Q. 147. And from the time of the formation of the regiment here in Cortland, in September, 1861, down to the time the regiment arrived in Washington, was not Colonel Green, in your opinion, as fully responsible as any rational and sound man for 1426 all that he said and done connected with all affairs other than those of a strictly and purely military nature?

A. Perhaps he was.

X Q. 148. And up to the time of the arrival of the regiment in Washington or up to the shooting of McNett was this not so, even with regard to military affairs, so far as you know or observed?

A. I think that it is so.

X Q. 149. After the arrival of the regiment at Washington did not this phase of Colonel Green's mind partake more of the nature of jealousy as to his inferior officers and officers of equal and superior rank in the service?

A. I think it was in part that.

X Q. 150. Was he not a man of very great ambition?

A. He was, apparently.

X Q. 151. So far as you observed, this peculiar mental trait of Colonel Green's only applied to matters purely military in relation to the regiment, did it?

A. I did not have a chance to observe him in anything else than military matters; I think that is so.

X Q. 152. Did you consider Colonel Green at all times as a person in every way competent and qualified to take care of his private business affairs?

A. I have never noticed anything that would indicate to the contrary; it would be my opinion that he was, so far as I had a chance to observe him personally.

X Q. 153. Would the same be true also with reference to financial matters?

A. I should think it would.

X Q. 154. Now, Doctor, supposing that Colonel Green did invent or discover the driven well, so-called, which he at one time told you about, as you have testified to (that is, the well on the fair ground), and that by his acts in permitting that well to be made on the fair ground and there publicly used, and also in making public statements in reference to the same at or about that time, he abandoned or dedicated his pretended invention thereof to the public and barred his right to obtain, subsequently, a patent therefor, would you, in your opinion as a surgeon and physician and from your observation
1427 of Colonel Green, hold him as fully responsible for what he then said and done regarding said supposed invention as you would any rational person of sound mind and memory?

George L. Waters, Esq., here appears for complainants.

A. I should think he was competent to so act, if he did so act.

X Q. 155. And from what you have testified in your last answer would you hold him as fully responsible for the consequence of any supposed acts of abandonment or dedication as you would a rational man of sound mind and memory?

A. I think I would.

Cross-examination of this witness closed.

Redirect examination:

R. D. Q. 156. You say, in answer to cross-question 152, that you never noticed anything that would indicate that Colonel Green was not qualified to take care of his private business affairs; do you mean by that answer to have it implied that you know anything whatever in regard to how he did manage his private affairs, and did you have any knowledge thereof?

A. I have no knowledge of his manner of managing his private affairs.

R. D. Q. 157. Supposing that Colonel Green, previous to
1428 this time, had been an industrious, careful man, managing his private affairs with such wisdom that he was thereby enabled to support himself and family and accumulate a comfortable sum, and that about this time he ceased to be industrious, ceased to accumulate property, but, on the contrary, unwisely spent what he had and gave his whole time and attention to brooding over his troubles or fancied troubles in the McNett affair and in the 76th regiment, would you or not conclude thereby that his mind was in an unsettled and unhealthy state to that extent as to seriously affect his better judgment and his acts?

A. While I should think his acts were very unwise, I should not think it was any indication of any impairment of his mind.

R. D. Q. 158. Do you mean to say thereby, Doctor, that so sudden and great a change in the habits and actions of a man does not indicate that he is laboring under a serious disturbance of the mind, and is not such a sudden change regarded by you, as a physician, one of the first evidences of a derangement of the mental faculties? State, further, whether or not it is not also an evidence of derangement of the mind when one, contrary to his habits in all his former life, suddenly becomes suspicious of his friends and of his counsel without any real cause, and when he labors under the idea that nearly every one is engaged in a conspiracy to injure him when there is no real cause for such ideas.

1429 A. To the first part of the question I should answer, not necessarily; the remainder of the interrogatory implies a condition that I should think might indicate an aberration of the mind.

R. D. Q. 159. You say, in your last answer, "not necessarily." Are not these the usual symptoms preceding aberration of the mind, and, taking the two together—the change in habits and the unfounded suspicions referred to in the last question—would you not consider them strong indications of what you term aberration of the mind?

A. Taking them separately, I should not think the first indicated aberration of the mind. I should think a man might change his habits of life and of giving his property or means to what he considered a worthy object without indicating an impairment of his mind; but, associating it with the other condition implied in the question, it perhaps might indicate that that also came from mental impairment.

R. D. Q. 159. In answer to cross-question 155 you state, in substance, that, assuming certain matters as facts put to you by the counsel, you would hold Col. Green as responsible for his acts as you would a rational man of sound mind and memory. To what period of time do you refer that answer?

A. I think that was up to the period of the driving of the well on the fair grounds.

R. D. Q. 160. And you do not mean, do you, Doctor, by your answer to cross-question 155, which I have just read to you, or your answer to any other cross-question, to change your statement as to the condition of Colonel Green's mind made on your direct examination?

A. No.

Redirect examination of this witness closed.

1430 Recross-examination:

R. X Q. 161. You do not, do you, Doctor, desire to change your testimony as contained in your answer to cross-question 154, which question assumes that the well on the fair ground had been made, that you had seen it, and that Colonel Green had shown it to persons publicly, and had talked about it, do you?

A. I do not wish to change my testimony.

R. X Q. 162. Did not cross-question 154 assume substantially the same state of facts as stated in the last question in reference to point of time?

A. I think it did; I so understood it.

R. X Q. 163. How long after the putting in of this well on the fair ground would it be or was it before you would make any distinction as to Green's mental condition, and was it not till you got to Washington before you noticed or observed any change in him?

A. I did not note much change in Colonel Green, to which I attached any great importance, until after our arrival at Washington, and until his subsequent conduct called attention to some of his acts prior to going there.

R. X Q. 164. You have read question 154, and I now ask you, if your answer that you there gave to it and to the subsequent question would be equally true down to the time of your arrival in Washington, so far as you observed?

A. I think it would.

1431 R. X Q. 165. You base this answer and the answers to questions 154 and 155 upon your observation of Colonel Green from the time when you first knew him down to the time of the arrival of the regiment in Washington in the early part of 1862; is this not so?

A. I do.

R. X Q. 166. And you, as surgeon of that regiment and its chief health officer, saw Colonel Green daily, if not many times a day, during this time, did you not?

A. I did not see him daily; there were days on which I saw him several times.

R. X Q. 167. Were you not, during this time, with the regiment about all the time?

A. The greater part of the time.

R. X Q. 168. How many days do you think you were absent?

A. I have no means of knowing.

R. X Q. 169. Did you not make it your special business to be with the regiment as much as possible?

A. I did.

R. X Q. 170. You do not know anything that Colonel Green said or did while at Cortland or in Washington after about the 23d of February, 1862?

A. My association with him ceased at about that time; I did not see him after that time.

R. X Q. 171. The counsel for complainants has, in questions on this redirect examination, delineated with his usual vivid imagination about a man's losing his property and various other details which you have heard, and sought to draw conclusions therefrom. You do not know, do you, Doctor, that Colonel Green ever squandered his property or ever had much to squander?

A. I do not know anything about his financial affairs or that he did or did not squander his property.

Proceedings adjourned until 7 o'clock p. m.

7 O'CLOCK P. M.

Convened pursuant to adjournment.

Complainants appear by D. L. Hurlbut, Esq., and George L. Waters, Esq.

Defendants appear by John W. Suggett, Esq., and Irving H. Palmer, Esq.

1432 Recross-examination of JUDSON C. NELSON resumed by Mr. SUGGETT:

R. X Q. 172. When did you first become acquainted with Colonel Green?

A. I never saw him until about the time the regiment was organized.

R. X Q. 173. And had your relations with him from that time down to February 23d, 1862, been very pleasant?

A. My personal relations with him were always very pleasant.

R. X Q. 174. You have stated that there was a military court convened at Washington in regard to Col. Green. Will you please state who were witnesses besides yourself that you know before that court?

A. Dr. George W. Metcalf, assistant surgeon of the 76th regiment testified; Dr. Weaver, who was a lieutenant in one of the companies, testified, I think; Dr. William Josiah Burr, I think, testified; Dr. Mead, one of the lieutenants of the line, also testified, I think; that is all that I now remember of the medical witnesses.

R. X Q. 175. How many times did you see Col. Green in 1864?

A. I did not see him in 1864.

R. X Q. 176. How many times did you see Col. Green in 1865?

A. I did not see him in 1865.

R. X Q. 177. Where did you see him in 1866?

A. I saw him at the McNett trial in 1866; in May, I think.

R. X Q. 178. Do you remember that that trial occupied several days?

A. I think it did.

R. X Q. 179. Would you not think that for two or three months previous to that trial Col. Green, knowing that it was coming on, and the offence for which he stood indicted being that of a felony and, if found guilty, might result in his being sent to State prison, he would be in a high state of mental excitement and would then show any aberration of mind if he were afflicted in that way?

A. Perhaps he might be.

1433 R. X Q. 180. How was Colonel Green, as far as you observed, in regard to his financial affairs; did he usually seem to look after the same as a prudent and cautions man would?

A. I never knew anything about his financial affairs nor of his habits in that respect.

R. X Q. 181. Was he a man, so far as you observed, who looked especially after his own interests and after the furtherance of his schemes and plans?

A. I should think he was a man who looked after his own interests as other men do; I do not know as he made that a specialty.

Recross-examination of this witness closed.

Second redirect examination by Mr. **Waters**:

R. D. Q. 182. Was not Colonel Nelson W. Green, during your acquaintance with him, an entirely temperate man, so far as the use of alcoholic drinks is concerned and also so far as tobacco is concerned?

A. I think he was.

Second redirect examination of this witness closed.

Second recross-examination by Mr. **Suggett**:

R. X Q. 183. And you do not, do you, Doctor, think that Colonel Green's supposed aberration of mind was caused by his not using tobacco or alcoholic stimulants?

A. It is not very probable.

R. X Q. 184. You do not know, do you, Doctor, but what he did use both tobacco and alcoholic stimulants? Please answer directly.

A. I do not.

Examination of this witness closed.

(Signed) JUDSON C. NELSON.

Sworn and subscribed before me this 16th day of September, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

1434 **John L. Haviland** called for complainants.

Complainants' counsel states that this witness was regularly noticed before another notary, and, at the request of defendant's counsel and for convenience, he is here produced, the same as if he were regularly noticed to be produced here.

Jed. Lake, Esq., appears for defendant in place of Mr. Suggett, who retired.

Witness, being duly sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. John L. Haviland; aged 63 years; residence, Preble, Cortland county, N. Y., and occupation, a farmer at present.

Q. 2. How long have you resided in Preble?

A. My permanent residence has been there about twenty-four years.

Q. 3. Did you know William E. Tallman, deceased, when he was living at Preble?

A. Yes, sir.

Q. 4. And have you also known Moses T. Tallman since you have resided in Preble?

A. Yes, sir; I have known him ever since he has lived in Preble; I also knew William E. Tallman during the time he resided in Preble. They might have lived there a short time before I knew them, but it was soon after they came there.

Q. 5. State where you have resided in Preble, with reference to where the Tallmans resided.

A. I first settled about two and a half miles north of where they lived, and in 1865 I moved where I now live, which would be probably not much over a mile across lots and perhaps nearly two miles around by the road. I live about a quarter of a mile east of Preble village, between that and the depot.

Q. 6. When William E. Tallman was living in Preble were you in the habit of having milling done at his mills and were you frequently at his mills?

A. Yes, sir.

1435 Q. 7. Is what is known as the driven well in use in your town to some extent?

A. Yes, sir.

Q. 8. Please describe, if you know, how they are made.

A. They are usually made by driving a solid bar of iron into the ground, and this bar is kept loose by turning with tongs. They usually drive the bar until they strike water, or strike where the ground is soft. Then they withdraw the bar and put in a gas-pipe with perforations at or near the end, the lower end stopped by an iron plug riveted in. This pipe is driven into the ground a sufficient depth until they think they can obtain permanent water. This method which I have described is used where the ground is hard or stony; where it is not, the use of the solid iron bar is dispensed with and the perforated and pointed pipe is driven directly down to water. After the pipe was driven, a pump—a common cast-iron pump—was screwed onto the pipe by a coupling.

Q. 9. Who first made driven wells in your town as you have described?

A. I do not know; I think it was Mr. Dunham, of Homer.

Q. 10. When did Mr. Dunham commence putting down driven wells in your town?

A. I do not know.

Q. 11. State as near as you can.

A. Well, I had one driven in 1865 or 1866, and I cannot say whether there were any there before that or not. This well was driven by Mr. Dunham.

Q. 12. Was that about the time that driven wells were first put down in your town, as you understood?

1436 A. Yes; I think it was about the time they first commenced using them there.

Proceedings adjourned until 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Complainants appear by D. L. Hurlbut, Esq.; defendant appears by Irving H. Palmer, Esq.

Examination of JOHN L. HAVILAND resumed:

Q. 13. Did you know of Moses T. Tallman's having a driven well on his farm?

A. Yes, sir.

Q. 14. Please state when that was put down, as near as you can, with reference to the time that your well was put down that you have spoken of.

A. The well that I have in my mind, I think, was put down since mine was. I do not know whether he had more than one well or not.

Q. 15. Was Dunham, when he put the wells down in your town, as you say, in the business of putting down wells in the manner you have described, as you understood?

A. I could not answer. He may have had other business; he was putting down wells wherever he could get an opportunity.

Q. 16. Where did these driven well have their origin, so far as you understand, by public notoriety or otherwise?

A. I heard of them being driven here in Cortland and also in Homer—the first I had heard of them.

1437 Q. 16½. How were those wells that were first made in your town by Dunham, as you say, regarded; whether they were regarded as new and novel; also whether they were talked about and discussed by people, and whether people went to see them and regarded them as a curiosity?

A. They were regarded as a useful and cheap mode of putting down wells, and being better than a dug well on account of nothing getting in to dirty the water; they were also regarded as a new process of getting water, and as to the last part of the question I could not say any further than that there were several neighbors came to see my well; they would drop in one at a time.

Q. 17. Do you remember of William E. Tallman erecting a windmill on his farm for the purpose of procuring water for his stock?

A. I remember of one being there. I think I was not at home that summer that the windmill was erected.

Q. 18. Please state about when you first saw it, and where located on his farm.

A. I could not say what year it was erected; I have nothing definite to refer to. It was erected either in 1859 or 1860, when I was on the river; it was located in the west or southwest part of his farm, about fifty or sixty rods from the north and south road, a little south of east of the house where Mr. Share now resides.

Q. 19. Have you been to the well recently where the windmill was erected for pumping water?

A. I cannot answer definitely, because I was never there while the windmill was there. I presume it is the same well. It is about the same location. If it is the same well I have been to it recently.

Q. 20. Did you see any of the timbers of the windmill lying about this well?

A. Yes, sir; I saw old timbers lying there.

Q. 21. Please state the condition and appearance of this well when you saw it.

1438 A. The well was located in a sort of hollow or basin, the surface of the ground being lower there than around. The well was dug and stoned up with cobble-stone; it had apparently been partially filled up and recently cleaned out. There was gravel and dirt outside. It was about fifteen feet deep from the surface of the ground. Some of the top stone had fallen off, so that the top of the stone wall lacked six or eight inches of being up even with the surface of the ground. It was about two feet inside diameter.

Q. 22. Please state about how much water was in the well at that time.

A. When I got there there was about a foot. A pump was in and they soon pumped it out. They said they had been pumping before I got there, and from the appearance of things they had.

Q. 23. Did you ever hear or know of that windmill pumping water by any other means or process than from that ordinary dug well, until about two years ago?

A. No, sir.

Q. 24. Did you ever hear or know of William E. Tallman ever inventing any new process for obtaining water?

A. Not until this came up, about a year and a half ago.

Q. 25. Have you understood and heard that for the last ten or fifteen years there has been litigation here in Cortland in regard to the patent on this driven well?

A. At the time I had my first well driven I was told that there was a litigation over who was the patentee.

Q. 26. Did you ever hear or know of William E. Tallman claiming to be the inventor of this process of obtaining water, which you have described as being a driven well, until within the last year and a half or thereabouts?

1439 A. No, sir.

Q. 27. Have you, in any conversation with William E. Tallman, ever heard him say anything as to his having originated a new process for obtaining water?

A. No, sir.

Q. 28. Was that the first windmill that you remember of being used in your valley—in the town of Preble?

A. Yes, sir.

Q. 29. And that was regarded as a curiosity and attracted considerable attention at the time, did it not?

A. It had been standing a few months when I got home. I heard it discussed some as a new thing.

Q. 30. About how many years has it been since that windmill was standing?

A. The frame has been standing there within a very few years—five or six. The fans have been off for ten years or more; my impressions of it are very vague.

Direct examination of this witness closed.

Cross-examination:

X Q. 31. When did you remove to Preble, in this county, and where did you remove from?

A. I never kept house anywhere else except in this county. I came from Greene county. I bought a farm and settled here in 1855 or 1856.

X Q. 32. What had been your occupation previous to settling in Preble?

A. I was brought up on a farm until I was twenty-one years of age; from that time until I settled in Preble I was a boatman on the Hudson river during the navigable season, excepting three seasons that I was occupied as foreman on the dock.

X Q. 33. How intimate were you with William E. and Moses Tallman in 1859 and since that time?

1440 A. We were always on speaking terms. I had my milling work done at William E.'s; always befriended each other and on social terms, as neighbors generally are.

X Q. 34. Did you visit them and their families, or did they visit you?

A. I think we never visited William's family; we have visited Moses' family as often as once a year for several years past.

X Q. 35. When did you and your family commence to visit at the residence of Moses Tallman, or his family at your residence?

A. I do not know; I think it was after the marriage of their oldest daughter; perhaps ten or twelve years ago.

X Q. 36. When did you have the driven well made upon your premises which you have mentioned in your direct examination?

A. It was either in 1865 or 1866; I am under the impression now that it was in 1865.

X Q. 37. How came you to have a driven well made upon your premises?

A. There was no running water upon the farm; I had a dug well at the house, and I had moved the barnyard fence further from the house, so that I could not lead water from the well to the barnyard, and Mr. Dunham came along, or I saw him, and I made up my mind that I would have one of these driven wells. I made arrangements with Mr. Dunham to make me a driven well.

X Q. 38. From what source did you first learn of driven wells, and how was your attention called thereto?

A. I could not say from what source I first learned of them; but I heard them discussed, and that they had wells of that kind in Cortland and also in Homer, and I thought it would be a good plan to have one to get water for my stock.

X Q. 39. At about what date did you first learn that driven wells were being constructed and used in Cortland and Homer, and to what extent did you then learn they were used?

1441 A. Say, perhaps, a couple of years before I had mine put down. I could not say to what extent they were used.

X Q. 40. Was the subject of driven wells mentioned in the newspapers about the years 1862 or 1863, and were they advertised to be made by parties in Cortland and in Homer who were engaged in constructing wells?

A. I do not remember; they may have been, and I may have got my idea of having one from the papers.

X Q. 41. When did you first see a driven well?

A. I cannot say whether I saw one made before I had mine made or not, but I think I did.

X Q. 42. Where was the first one located which you saw made?

A. If my mind serves me right, I think it was about two miles north of Baltimore, in Preble township, Cortland county; that one was driven in Benjamin F. Van Hoesen's cellar; one in the cheese house, near Moses Tallman's, and my own was driven about the same time; there was not over a year's difference, but which was driven first I could not say.

X Q. 43. What years since you have resided in the town of Preble have you been absent from the town the entire year or a part thereof?

A. I think in 1859 and 1860.

X Q. 44. When were you at the well at which the windmill was erected?

A. I think it was two weeks ago last Monday.

X Q. 45. Have you been there on more than one occasion? And, if so, state when.

A. I have been there only on that one occasion.

X Q. 46. Did you measure the dimensions of this well on that occasion? And, if so, state what dimensions you measured.

A. I did not measure it; I only saw it measured.

X Q. 47. Who did the measuring?

A. Noah J. Parsons.

X Q. 48. Who else was present?

A. Mr. Eben Daly, Matthias Van Hoesen, Mr. Ballard (Thomas Ballard), and Mr. William D. Andrews.

X Q. 49. What was the occasion of your being there at that time?

1442 A. Mr. Parsons and Mr. Eben Daly and Matt. Van Hoesen came to my house and drove in the yard with a wagon, and I went out to see what they wanted; Mr. Parsons said he wanted I should go with them down to the well, so I went with them.

X Q. 50. What inducement was offered or held out to you to get you to go to the well on that occasion?

A. Not any.

X Q. 51. Did you volunteer to go to this well for the purpose of becoming a witness in this case?

A. No, sir.

X Q. 52. Why did you go, then?

A. Only because Mr. Parsons asked me; I had never seen the well, and was anxious to see it.

X Q. 53. Matthias Van Hoesen has taken considerable interest in this well controversy on the side of the complainants, has he not?

A. I do not know; any more than I have seen him consulting with their counsel.

X Q. 54. He sometimes does pettifogging in Preble, does he not?

A. Yes, sir.

X Q. 55. Mr. Van Hoesen has also been engaged in consulting with the witnesses for the complainants, has he not?

A. I do not know; I have seen him in the room with Mr. Goodrich and some of the witnesses.

X Q. 56. On how many occasions have you seen him in the room with Mr. Goodrich and some of the witnesses?

A. I think two or three.

X Q. 57. Do you mean Mr. Goodrich, the complainants' counsel?

A. Yes, sir.

X Q. 58. Were you subpœnaed in this case; if so, when and by whom?

A. I have not been subpœnaed.

X Q. 59. Who requested you to appear here as a witness, and when was the request made?

A. Matthias Van Hoesen requested me to come down; I think it was two weeks ago, either Friday or Saturday.

1443 X Q. 60. Did he promise you any reward or compensation for so coming; and if so, how much and what?

A. I think he said I would be paid for my time.

X Q. 61. Did he pay you anything as witness' fees?

A. No, sir.

X Q. 62. On how many different occasions have you been in attendance as a witness in this and other driven-well suits?

A. This is the first time I have been called as a witness; I have been down here three times.

X Q. 63. What were you informed you were requested to be here for on these three different occasions?

A. Mr. Van Hoesen was the first who said anything to me; he said he wanted I should go to Cortland the next day, as they wanted to see me here; I think he said it was on that windmill business; I do not know as those were the exact words he used.

X Q. 64. Whom were you told wished to see you at Cortland?

A. I do not think he mentioned any names.

X Q. 65. Did you understand who it was that wished to see you; and if so, who was it?

A. No, sir; I did not understand.

X Q. 66. You came, then, at Mr. Van Hoesen's request, without knowing what you came for or who you came to see; is this not so?

A. I came by his request, not knowing who I should see; but from what he had said or what I had heard I supposed it was on this driven-well business.

X Q. 67. Were you ever down into this well on the Tallman farm, now occupied by Thomas Ballard, where the windmill formerly stood?

A. No, sir.

X Q. 68. The diameter of the well which you gave on your direct examination is that at the top of the well, is it not?

A. I gave two diameters; I said the well was about two feet in diameter, but the wall at the top had shoved over on the west side, so that the top of the well was not round; the shorter diameter measured about seventeen inches, and the longest diameter twenty-three and one-half inches. 1444

X Q. 69. How far from the top of the well was this longest diameter which you have given?

A. The longest diameter of twenty-three and one-half inches was immediately at the top, measured north and south.

X Q. 70. Where was the shortest diameter measured which you have given?

A. At the top, east and west.

X Q. 71. The diameter of the well about half way from the top to the bottom was greater than it was at the top, was it not?

A. It was greater.

X Q. 72. The wall on the west side of the well appeared to have been crowded inward by the pressure of the earth from the outside, did it not?

A. Yes, sir; just on top only.

X Q. 73. For what distance from the top towards the bottom did the wall have the appearance of being crowded over?

A. From eight or ten inches.

X Q. 74. Did you make any memoranda of the measurements which you saw taken of the dimensions of this well on that occasion?

A. No, sir.

X Q. 75. How or with what instruments or appliances were the measurements taken which you have mentioned?

A. The depth was taken by tying a stone to a line and sinking the end to the bottom of the well with the stone and drawing the line taut to the top of the well and marking there, and then the line was drawn up and measured with a foot-rule. The diameter was got by taking two sticks, putting one end of each against the stone on each side of the well, and then they were held as they were lapped and measured with the same rule from end to end.

X Q. 76. How was the depth of the water in the well measured or ascertained?

A. I did not see it measured; my statement on the direct examination was only guess-work.

1445 X Q. 77. You estimated the depth of water in the well by observing the same from the top of the well, did you not?

A. Yes, sir.

X Q. 78. What sort of string was used to measure the depth of the well, as you have described?

A. It was a small rope. I think it was made of jute.

X Q. 79. For aught you know, William E. Tallman may have constructed a driven well by driving into the earth, at the bottom of this well, a common iron gas pipe, and attaching a pump thereto with an air-tight connection, in the year 1859; is not this so?

A. For aught that I know, he may have done so.

Cross-examination of this witness closed.

Redirect examination:

R. D. Q. 80. Has it been a very dry summer in your town this year, especially during June, July, and the latter part of August?

A. Yes, sir.

Redirect examination of this witness closed.

Recross-examination:

R. X Q. 81. Has there not been copious rains in the town of Preble during the month of August in the present year?

A. I think there has been but one what we call a good, soaking rain during the month of August, and the ground was so very dry before that that in two days after the rain you could hardly see by the road that we had had any rain at all.

R. X Q. 82. Did not showers commence to occur about the last of July of this year, and have they not followed at frequent intervals since that time?

A. We have had some light showers during the month of August, but the heaviest rains went around us.

R. X Q. 83. Has not the water in the streams been lower on several occasions than during the month of August of the present year since you became a resident of Preble?

1446 A. It has on some occasions; I think it was lower last year.

Recross-examination of this witness closed.

Second redirect examination:

R. D. Q. 84. Taking into consideration that the well was operated by a windmill, if there had been a new process of getting water, such as a driven well, do you not think, Mr. Haviland, that you would very likely have heard of it?

A. I think I should have heard of it.

Second redirect examination of this witness closed.

Second recross-examination:

R. X Q. 85. How long a time was occupied in pumping the water from this well on the occasion you have referred to?

A. Probably the first they pumped after I got there, it was about ten minutes.

R. X Q. 86. About how many gallons of water were removed from the well by the pump at the time of first pumping it out?

A. I could not tell you. I was not there when it was first pumped out. The first time I saw it pumped out I should judge from the capacity of the pump there were eight or ten common twelve-quart pails. There may have been more.

R. X Q. 87. Taking into consideration the fact that you were not in the town of Preble or at home in the summer of the years 1859 and 1860, when this driven well was constructed by William E. Tallman, or during the season of navigation of those years, is it not probable that you would not have heard of it?

1447 A. It is possible, but not hardly probable.

Examination of this witness closed.

(Signed) JOHN L. HAVILAND.

Subscribed and sworn before me this 15th day of September, 1880.

[L. S.] (Signed) M. STANLEY BIERCE,
Notary Public.

Proceedings adjourned until 7.30 o'clock p. m.

1448 7.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Complainants appear by D. L. Hurlbut, Esq.; defendant appears by Irving H. Palmer, Esq.

CEYLON H. LEWIS called for complainants.

This witness having been noticed to be called and examined before another notary in this cause, it is here conceded by counsel that he may be called and examined before this notary the same as if he had been noticed to be called and examined before this notary herein.

The witness, being duly sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is Ceylon H. Lewis; my age is twenty-nine years; residence, 311 Mulberry street, Danforth, Onondaga county, N. Y.; my occupation is a lawyer, at Syracuse, N. Y.

Q. 2. How long have you done business in Syracuse?

A. Ever since I was admitted to the bar, in 1877.

Q. 3. Did you know William E. Tallman in his lifetime, who formerly resided at Preble, Cortland county, N. Y.?

A. I did.

Q. 4. About when did you first become acquainted with him, and where?

A. It must have been in the fall or summer of 1877, at Syracuse.

Q. 5. Please state about the time of Mr. Tallman's death.

A. I think it was in the following year.

Q. 6. Where did he reside about the time that you first became acquainted with him?

A. He had a place of business at Syracuse, and I think he resided there.

Q. 7. Did you have a conversation with Mr. William E. Tallman in regard to the well that he had made at Preble, operated by a windmill?

A. I did.

1449 Q. 8. About when was that, and at whose request?

A. I think it was in the summer or fall of 1877, and at the request of Noah J. Parsons.

Q. 9. Please state, as fully as you can, what William E. Tallman stated to you at that time.

A. I went down to see Mr. Tallman at his place of business, and told him that I had been requested to interview him in regard to a well on his farm in Preble some years ago. He said that he understood there was some excitement in regard to the wells he had there, and that his brother and Mr. Duell had been writing to him or talking to him about it, and that they thought that he had something that approached to a driven well there at that time. He spoke of their having found a pipe with perforations in it, and said that he did not think he should pay any attention to it, because he thought there was nothing of it. I asked him to explain to me in regard to the well, and he said that he dug a well there and sent on and got a windmill and pump, and put it in, but that the water was soon exhausted. He dug down deeper, and got a piece of pipe and had some perforations made in it, and put that into the well; then he told me how he attached it to the pipe that was already in the well by winding some rags around it and pitching it where the joint was made by their coming together, and that he then made a sort of basin there for his cattle, and had plenty of water. He said that his brother had written to him or seen him in regard to it, and that his brother seemed somewhat excited over it, but that he did not think it was worth while for him to take any steps with regard to it; that is the substance of that conversation as I remember it.

Q. 10. You say "his brother;" please give his brother's name, if you know.

A. He said his brother Moses, down there at Preble.

Q. 11. Was this pipe put in to lengthen the pipe so as to
1450 reach the water that they had obtained from digging the
well deeper, as you understood from that conversation?

A. The idea which I got was that he added this short pipe in order to reach the bottom of the well after digging it deeper.

Direct examination of this witness closed.

Cross-examination:

X Q. 12. Mr. Lewis, where were you born?

A. I was born at Vesper, in the town of Tully, Onondaga county.

X Q. 13. In what month and year?

A. On the 6th of December, 1849.

X Q. 14. What was your father's name?

A. His name was Oysamandus Lewis.

X Q. 15. Is your father still living?

A. He is not.

X Q. 16. When did he die?

A. He died in Ohio in the spring of 1861.

X Q. 17. At what place in Ohio did he reside at the time of his death?

A. I think it was Zanesville.

X Q. 18. What was your father's business?

A. He was a physician.

X Q. 19. When did he remove from Vesper, where you say you were born?

A. It must have been in 1853 or 1854; nearer than that I cannot tell.

1451 X Q. 20. Did he move directly from Vesper to Zanesville?

A. No.

X Q. 21. To what place did he move when he left Vesper?

A. To Fabius, Onondaga county, N. Y.

X Q. 22. Were you then living in the family with him?

A. I was.

X Q. 23. How long did he reside at Fabius?

A. Till he moved to Zanesville, in 1857 or 1858.

X Q. 24. Did he move his family to Zanesville at that time?

A. All of his family but me.

X Q. 25. Did you continue to reside at Fabius after he went to Zanesville; and, if so, for how long?

A. I continued to reside there until I went away to college, in 1869; I held my residence there until I moved to Syracuse.

X Q. 26. When did you move to Syracuse?

A. In the fall of 1873—October, 1873.

X Q. 27. Did you commence the practice of your profession as a lawyer while residing at Fabius?

A. I did not.

X Q. 28. When were you admitted to practice as an attorney and counsellor in the courts of this State?

A. In January, 1877.

X Q. 29. And where have you practiced since that time?

A. At Syracuse, New York.

X Q. 30. In what office or at what school did you prepare yourself for your profession?

A. In the office of William P. Goodelle, at Syracuse, New York.

X Q. 31. Are you associated in business with any partner, or have you been since your admission to practice?

A. No.

1452 X Q. 32. Please give the street and number of your office or place of business.

A. I am in the office of W. P. Goodelle, at No. 4 Clinton block, Syracuse; I have my office with him.

X Q. 33. Who composed your father's family at the time of his removal to Zanesville, Ohio, as you have stated?

A. Himself, his wife, her daughter, and my brother.

X Q. 34. Was your brother older or younger than yourself?

A. Six years older.

X Q. 35. When did you make the acquaintance of Noah J. Parsons?

A. About 1867.

X Q. 36. Is this the gentleman by the table?

A. It is.

X Q. 37. How came you to become acquainted with him at that time?

A. I met him at his father-in-law's.

X Q. 38. What was your business at his father-in-law's on that occasion?

A. None.

X Q. 39. What were you there for on that occasion?

A. I was there on a visit.

X Q. 40. Whom were you visiting there?

A. I was visiting his father-in-law and the family.

X Q. 41. What is his father-in-law's name?

A. His name is Jesse Blanchard.

X Q. 42. Are you a relative of Mr. Blanchard's?

A. I am.

X Q. 43. What is the relationship?

A. He is my uncle—second uncle; his wife was my grandfather's sister.

X Q. 44. Have you had any business relations with Noah J. Parsons since your first acquaintance; and, if so, what?

A. None whatever.

X Q. 45. Are you well acquainted with the residents of the town of Fabius?

1453 A. I am.

X Q. 46. When did Noah J. Parsons request you to interview William E. Tallman?

A. I think it was just previous to the interview.

X Q. 47. Where were you when he made this request of you?

A. At Syracuse; I think the request was by letter.

X Q. 48. Have you the letter containing the request?

A. I think it is at my office.

X Q. 49. When did you last see it?

A. I have not seen it since that time.

X Q. 50. What did you do with it?

A. If there was such a letter, it is filed away among letters received.

X Q. 51. What was the purpose for which Mr. Parsons requested you to interview William E. Tallman?

A. I do not know.

X Q. 52. Were you informed that he had any purpose in making the request of you?

A. I think he said or wrote that there was some litigation over a well that Tallman had, and asked me if such a man lived at Syracuse; and, if so, to see him.

X Q. 53. Did he make any further request of you or give you any directions; and, if so, what were they?

A. He asked me to inquire of him in regard to this well and the pipe and what there was of it, as I remember.

X Q. 54. Did you communicate to Mr. Parsons the result of your interview with William E. Tallman?

A. I did.

X Q. 55. By what means?

A. I think by letter.

X Q. 56. Did you keep any copy of that letter?

A. I did not.

X Q. 57. What was the date of the letter?

A. If it was by letter it was soon after the interview with Tallman.

X Q. 58. Give the date of the letter, as near as you are able.

A. I think it was in the summer or fall of 1877; nearer than that I cannot state; if there was a letter.

1454 X Q. 59. Did you have more than one interview with William E. Tallman respecting the well in question?

A. I think not.

X Q. 60. Were you acquainted with William E. Tallman previous to this interview which you have mentioned?

A. I had seen him, but was not personally acquainted with him.

Proceedings adjourned until Thursday, September 16th, 1880, at 9 o'clock a. m., at this place.

THURSDAY, *September 16th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Complainants appear by Geo. L. Waters, Esq.; defendants appear by Irving H. Palmer, Esq.

Cross-examination of CEYLON H. LEWIS resumed:

X Q. 61. Did you ever interview any other person than William E. Tallman at the request of Noah J. Parson or either of the complainants, their attorneys, solicitors, or counsel?

A. I did not.

X Q. 62. Do you know George Way, of Fabius, Onondaga county, N. Y.; and, if so, how long and how intimately have you known him?

A. I have known him for probably fifteen or twenty years.

X Q. 63. Have you done any professional business for him?

A. I think not. I may have made a collection for him at one time.

X Q. 64. Did you have an account book or books belonging to him in your possession at one time?

A. I think not.

X Q. 65. Do you know whether or not you did?

A. I remember seeing his book, but I do not think I ever had it in my possession. I am positive about it.

1455 X Q. 66. When and where did you see his book?

A. I think it was at Fabius in 1877 or 1878.

X Q. 67. Can you not be more definite as to the date when you saw his book?

A. It must have been in the fall of 1877 or in the following winter.

X Q. 68. How came you to see his book on the occasion you have mentioned? State the circumstances which led to it.

A. I was at Fabius on business, and, as I remember it, he said that they had been to see him in regard to his books on this driven-well matter, and asked me if I knew anything about it. He said he had found an old book with charges against William E. Tallman. This, I think, was a casual meeting at the post office. His house was within ten rods of there, and he got the book and showed it to me. That is as I remember it.

X Q. 69. Did you go to his house to see the book?

A. That I cannot state, but I think not.

X Q. 70. Where was the book exhibited to you?

A. It was either at the post office or at his house, or between them, or somewhere in that vicinity. My impression is that he brought it to the post office.

X Q. 71. Did you request him to be permitted to see the book or any entry therein contained?

A. That I cannot state.

X Q. 72. Whom did he say had been to see him in regard to his books?

A. I do not remember as he mentioned any one.

X Q. 73. In your answer to cross-question 68 you replied, "He said that they had been to see him in regard to his books on this driven-well matter." Did he tell you or did you understand from what he said who it was that had been to see him in regard to his books on this driven-well matter or in whose behalf or interest he had thus been interviewed?

1456 A. I do not now remember that he did.

X Q. 74. Did he show you an entry in his book which he claimed to be a charge made by him against William E. Tallman for punching the pipe used in the well at which a windmill was erected on his farm, or anything of that import?

A. He showed me an entry regarding that matter. What it was I cannot recall.

X Q. 75. Under what date was that entry made on his book?

A. I cannot state.

X Q. 76. Have you forgotten the date under which this entry appeared on his book, and why can you not state?

A. I have forgotten. The reason why I cannot state is that it was a casual interview, to which I paid very little attention and had no interest in whatever.

X Q. 77. Where was this book when you last saw it?

A. I do not remember having seen it since that time.

X Q. 78. Do you know who now has possession of it?

A. I do not.

X Q. 79. Has it ever been in your possession since the occasion when you saw it, as you have testified?

A. Not that I remember; I think not.

X Q. 80. Can you give the date of the occasion when you had an interview with William E. Tallman, as you have testified on your direct examination in answer to question No. 9?

A. I cannot state more fully than I have already stated.

X Q. 81. Where did that interview occur, and who was present?

A. It was at his then place of business, on Clinton street, in Syracuse, in a large room, where he had a lot of bed springs piled up. No one was present but himself and myself, that I recollect.

X Q. 82. Did you make any memorandum of the conversation you then had with William E. Tallman?

A. I either made a memorandum or else sat down and wrote it at my desk in the office, in a letter to N. J. Parsons.

1457 X Q. 83. Which of the two did you do?

A. I am positive that I wrote a letter to Parsons within a short time.

X Q. 84. When did you last see this memorandum then made, and where was it entered or made?

A. If I made such a memorandum it was on some old letter or envelope or scrap of paper which I had in my pocket. I have not seen it since, as I remember.

X Q. 85. What is your best recollection, as to whether you did or did not make such a memorandum?

A. My impression is that I did.

X Q. 86. Have you refreshed your recollection by a reference to any memoranda or circumstance as to what William E. Tallman did say in that interview which you have mentioned since the time when you had the conversation or made the memorandum. And, if so, give the means by which you have so refreshed your recollection.

A. I have seen a synopsis of the letter which I wrote to Mr. Parsons at that time; that is all.

X Q. 87. By whom was this synopsis made?

A. I do not know.

X Q. 88. When did you see it?

A. I saw it yesterday.

X Q. 89. Where did you see it, and in whose possession was it when you saw it?

A. I saw it in the possession of Mr. Parsons at Cortland.

X Q. 90. In whose handwriting was it?

A. I cannot state.

X Q. 91. Are you acquainted with Mr. Parsons' handwriting?

A. I have seen his handwriting, but I do not think I could identify it.

X Q. 92. Do you think this synopsis was in his handwriting?

A. I could not form an opinion; I did not notice the handwriting particularly.

X Q. 93. In what was this synopsis contained?

A. It was on a sheet of note paper with other writings.

X Q. 94. Is the narrative or version of the conversation
1458 which you have given on this examination the same as that
contained in the synopsis you have mentioned?

A. I think so, substantially.

X Q. 95. Did you intend — make the narrative or version of your interview with William E. Tallman on the occasion mentioned by you correspond in substance with the synopsis you have mentioned?

A. The narrative is based on my recollection and simply refreshed by the synopsis.

X Q. 96. Is it not possible you have been misled somewhat in your version of this interview with William E. Tallman by the synopsis mentioned?

A. I think not.

X Q. 97. Are you positive that you have not been thus misled?

A. I am.

X Q. 98. Will you now please begin at the beginning of that interview, and state, in the order in which it then occurred, using the language of yourself and William E. Tallman, what was then and there said?

A. I cannot give the language of that conversation, but the substance. It was this: I told him that I had been requested to interview him in regard to a well which he had on his farm at Preble, made in 1859. He suggested that he understood there was some excitement about a well that he had put down there then. He said that his brother Moses, who lived down there, and Mr. Duell had been writing to him or talking to him about it and were trying to get him interested in it, and that they thought that he had something like a driven well there then. He said he thought he should not pay any attention to it. He gave me some particulars in regard to the construction. He said he dug a well, and that he got a windmill on there and a pump; I think he stated that he sent East and got the windmill; that his supply of water soon gave out; that he deepened it, got a piece of old pipe, had some holes made in it, and put that on the end of the pump pipe. He said that he then made a sort of tub or basin for his cattle and that he then had a supply
of water while he staid there. He mentioned their having
1459 found this pipe with perforations in it down at Preble, and
that he supposed that was what started them to look him up
in regard to it. He described to me how he attached this pipe to the pipe of the pump by making a sort of joint and winding rags or canvas around it and pitching it. That is all that I remember of the conversation in regard to wells. He went on then to talk of his bed springs and his patent carriage top which he had in there. He tried to sell me a bed spring, and asked me my opinion of the patent carriage top.

X Q. 99. Did he tell you for what purpose his brother Moses and Mr. Duell had sought to interest him in the matter of this well; if so, what was it?

A. I think not.

X Q. 100. Whom did he say had found a pipe with perforations in it?

A. I think he said "they" generally; I do not remember of his specifying anybody.

X Q. 101. Did he use the pronoun "they" in his statement to you, without reference to any antecedent or the names of any persons?

A. I do not remember of any antecedent being expressed.

X Q. 102. Was any antecedent implied in his conversation, and, if so, who was it?

A. My impression is that it was his brother, Moses Tallman, referred to.

X Q. 103. Have you given the conversation between yourself and William E. Tallman, on your cross-examination here, in the order in which it occurred?

A. It may and it may not have been in the exact order.

X Q. 104. Have you given it in the order in which it occurred, as near as you are able?

A. I have; I paid more attention to the substance than to the order.

X Q. 105. Did Mr. Tallman tell you that he erected a windmill and constructed appliances for pumping water therewith from this well before he inserted the pipe with the perforation therein in the bottom of this well, or that in substance?

A. He did, in substance.

1460 X Q. 106. What did you understand Mr. Tallman to mean by the statement "that he did not think it worth while for him to take any steps with regard to it?"

A. What I understood was that he did not think that it could ever benefit him any, and that there was nothing in this transaction in 1859 which anticipated the driven-well patent. I may not have got his full meaning, from the fact that I was almost entirely ignorant on the subject of these patents concerned in this litigation.

X Q. 107. Did Mr. Tallman say a word about anticipating the driven-well patent in this conversation?

A. I do not know that he used that language.

X Q. 108. In your answer to question 11 did you mean to be understood as testifying that Mr. Tallman told you that the pipe with the perforations therein, inserted in the bottom of this well, was added to for the purpose of lengthening the pipe before in use to conduct water from the dug well, before the same had been deepened, through the pump into the receptacle above, or that in substance, or do you mean to be understood as testifying simply that you got that idea or impression from what was said during the interview?

A. I do not remember his using that language or that in substance; such was the impression that I got from this conversation.

X Q. 109. Have you been engaged in collecting royalties on driven wells or aiding in the collection of such royalties?

A. Never; I have been engaged in paying some.

X Q. 110. Whose royalty have you paid, how much have you paid, and to whom did you pay it?

A. Mrs. Mary J. Blowers, of Syracuse, N. Y.; when they were collecting in Syracuse she gave me five dollars and requested me to pay the royalty on her well and get a receipt, and I did it for her; it was paid to N. J. Parsons, in Onondaga county, and was when he advertised that he was collecting royalties.

X Q. 111. Is this the extent of your connection with the collection of royalties on the driven well?

A. Yes, sir.

1461 X Q. 112. Have you advised the payment of royalties by persons using driven wells?

A. I have not, that I recollect.

(The witness states that he desires to correct the age given, which is 30 instead of 29 years.)

Examination of this witness closed.

(Signed) CEYLON H. LEWIS.

Sworn and subscribed before me this 16th day of September, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

1462 JOHN VAN DENBURGH called for complainants.

Complainants' counsel, by Mr. Hurlburt, states that this witness was called and examined before the notary, Frederick Hatch, in this cause, this forenoon, by mistake of Mr. Hurlbut, who supposed that the notice empowering Mr. Hatch to take evidence in this cause contained the name of this witness, but at the adjournment at noon he discovered his mistake, and that the witness was noticed to be examined before this notary, and he is now produced for such examination.

The witness, being duly sworn, testified as follows:

Examination by Mr. WATERS:

Q. 1. State your name, age, residence, and occupation.

A. My name is John Van Denburgh; age 66; I live in Preble, and work at farming.

Q. 2. How long have you lived in Preble?

A. I was born there and have lived there my lifetime, with the exception of one year.

Q. 3. Did you know William E. Tallman in his lifetime, while he lived in Preble, and do you know Moses T. Tallman, who now lives in Preble?

A. I was acquainted with both of the men, and am now acquainted with Moses T. Tallman.

Q. 4. About how far from the farms of Moses T. and William E. Tallman have you lived during your acquaintance with them?

A. Three miles is the farthest that I have lived from them at any time.

Q. 5. State whether or not you have been, during the time you have known them, quite intimately acquainted with them, meeting them frequently.

A. Yes; I met them often.

Q. 6. Do you know of the driven well in common use in this county, and how it is constructed?

A. I have seen quite a number of them; I know nearly how they are constructed.

1463 Q. 7. When did you first see that process used in your town and first know of a driven well being made by that process?

A. The first well was at the Preble depot, that I ever saw; I think, in 1865 or 1866, as near as I can tell; I cannot tell exactly.

Q. 8. Since that time have driven wells been put down in your town to a considerable extent?

A. I have known quite a number to be put down.

Q. 9. By whom were these wells first put down in Preble?

A. The one at the depot I do not know who put down; it was in operation when I first saw it and was the first one I saw, and the remainder Mr. Dunham, of Homer, put down, all that I know of.

Q. 10. At the time that these wells first went into use in Preble, as you have stated, were they regarded by you and your townsmen as a new and novel way of making wells or otherwise?

A. Yes; they were regarded as such.

Q. 11. When did you first hear of this process of obtaining water by a driven well?

A. I said it was in 1865 or 1866.

Q. 12. It was when you saw the one at the depot?

A. That was the first one that I ever knew anything about or saw.

1464 Q. 13. State whether or not you knew the fact that William E. Tallman, in about the year 1859, erected a windmill at a well on his farm in Preble, now occupied by Thomas Ballard, for the purpose of pumping water for his stock.

A. I was at the well once. The windmill was there then.

Q. 14. Was the windmill or not then in running order, and about how long after its erection were you there?

A. I could not tell whether it was in running order. It seemed to be all rigged for business, as far as I could see. I am not a mechanic or millwright. I think it was put up that summer.

Q. 15. What kind of a well was it that the water was pumped from by this windmill?

A. I think it was a dug well and stoned up.

Q. 16. Did you ever hear or know of William E. Tallman's ever claiming to have invented a new process for obtaining water by the driven-well invention, or did you ever know or hear that he claimed that this well was anything other than an ordinary dug and stoned well?

A. I never heard anything at the time of it that they claimed any such thing. I first heard such a claim since this litigation.

Q. 17. Have not the months of July and August of the present season been months wherein a considerable drought has occurred in Preble, so as to considerably diminish the supply of water in the streams and make them quite low?

1465 A. Yes.

Direct examination of this witness closed.

Proceedings adjourned until Friday, September 17th, 1880, at nine o'clock a. m., at this place.

FRIDAY, *September 17th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Complainants appear by Geo. I. Waters, Esq.; defendant appears by Irving H. Palmer, Esq.

Cross-examination of JOHN VAN DENBURGH resumed:

X Q. 18. You are a man of family, I suppose, Mr. Van Denburgh?

A. Yes, sir.

X Q. 19. Has it been customary for you and your family to exchange visits with William E. and Moses T. Tallman and their families during the time that William E. Tallman resided at Preble; and, if so, about how frequently?

A. Never visited there, nor they with me.

X Q. 20. Are you a freeholder?

A. No, sir.

X Q. 21. Have you ever had a driven well constructed for you?

A. No, sir.

X Q. 22. When did you first see the well on the premises of William E. Tallman at which a windmill was erected for the purpose of pumping water?

A. I think it was in 1859.

X Q. 23. How came you to visit it on that occasion?

A. I came home from the camp-meeting across by the fields.

X Q. 24. Did you pass this well on your way home from camp-meeting on that occasion?

A. Yes.

1466 X Q. 25. Who was with you, if any one?

A. There were a couple of other chaps with me. I think my brother William was one of them; the other I cannot recollect.

X Q. 26. Is your brother William living; and, if so, where does he reside?

A. In the State of Illinois; at Joliet, I believe.

X Q. 27. Is your brother William younger or older than yourself?

A. Younger.

X Q. 28. What is his business?

A. He is a carpenter.

X Q. 29. When did he remove from Preble to Joliet, Illinois?

A. I should think it was nearly twenty years ago.

X Q. 30. Did you make any examination of this well at the time you visited it on your way home from camp-meeting on the occasion mentioned by you?

A. I did look round about the windmill more than anything else, so that I could see the arrangement of it. I went up and looked in the well.

X Q. 31. When next were you at this well?

A. I never was there at the well after that, nearer than the road.

X Q. 32. Then, I understand you, that you never was at this well but once, and that was on your way home from camp-meeting, in 1859, as you think?

A. That is all the time I was ever there.

X Q. 33. Did you see any water in this well when you looked into it?

A. I did not.

X Q. 34. Is it your best recollection that the dug well was then dry?

A. I do not know whether there was any water in that well or not.

X Q. 35. If there was any water in the well you saw none?

A. I did not see any.

X Q. 36. Was there any in sight?

A. I don't recollect of seeing any.

X Q. 37. If there had been any water in the dug well do you not think you would have seen it?

1467 A. I did not take any particular pains to look; I just looked in the well, that is all.

X Q. 38. Was the well covered over the top; and, if so, how was it covered?

A. Partially covered, to keep things out of it.

X Q. 39. When was this windmill and well constructed, according to your recollection? Please give the time with reference to the camp meeting you have mentioned.

A. I think it was that summer before the camp-meeting, which was in September, I think, in 1859.

X Q. 40. Do you know by whom the windmill was erected—by whom the work was done?

A. I do not know anything about that, only by what I have heard.

X Q. 41. Was not the fall and summer of 1859 drier and the streams lower than the corresponding seasons of 1880?

A. I recollect that it was quite dry; to what extent I cannot tell; I think there have been seasons full as dry; I recollect that it was quite dusty going to camp-meeting.

X Q. 42. You say you "think there have been seasons full as dry;" do you mean by that seasons full as dry as the season of 1880?

A. No.

X Q. 43. Were not the streams in the town of Preble lower and was it not drier in the summer and fall of 1879 than in 1880?

A. I could not tell to save my life.

X Q. 44. You have not paid much attention to the streams in the town of Preble or the comparative wetness or dryness of the seasons, have you?

A. I have not.

Examination of this witness closed.

(S'g'd) JOHN VANDENBURGH.

Subscribed and sworn to before me this 17th day of September, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

Proceedings adjourned until 1.30 o'clock p. m.

1468 1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Complainants appear by Geo. L. Waters, Esq.; defendant by Irving H. Palmer, Esq.

W. T. BLANCHARD called for complainants. The witness, being duly sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is W. T. Blanchard; my age is 41 years, and residence Cortland, N. Y.; I am running a wood shop.

Q. 2. Are you a relative of one of the complainants, Noah J. Parsons; and, if so, what is your relationship to him?

A. I am; he is my brother-in-law.

Q. 3. State whether or not you at one time visited a well on the farm occupied by Thomas Ballard, in Preble; and, if so, when and at whose instance did you go?

A. I did, at the request of Mr. Parsons. It was either the last of July or the first of August, 1880.

Q. 4. Please to give the location of this well.

A. It was, I should think, about a mile south of Preble and about fifty rods from the north and south road and about fifty rods north of the east and west cross road.

Q. 5. Who went with you?

A. My father, Jesse M. Blanchard, and Mr. Noah J. Parsons.

Q. 6. State what occurred there at that time.

1469 A. Mr. Ballard showed us where the old well was supposed to be. The surface of the ground was all smooth; there were no indications of the well on the outside. We then took a bar to see if we could find the well and found a spot where we could run it into the ground four or five feet easy. We then commenced to dig. We throwed about eighteen inches of dirt, I should think, before we came to the stone. We then drew out this bar and drove a pipe until we came to water. This pipe was driven inside of the wall of the old well. We drove till we got water inside of the pipe; then Mr. Parsons went and got one or two men to come there; I think that was next; then we measured the distance to water; then Mr. Parsons went again after men and I went to work throwing the the stone out of this well. I throwed out stone to the depth of about ten feet from the surface of the ground. We throwed out stone to within about eighteen inches of water. I dug away the stone in one corner so that we could see the water where we stood. That is about all there is of it. We then drew this old ladder out of the well.

Q. 7. You say, in answer to the last question, that you found the surface of the ground smooth over the top of the well. State whether or not when you had uncovered the well, as you have stated, you found it filled up; and, if so, with what.

A. We found it filled up with cobble-stone.

Q. 8. To what depth from the surface did you remove these cobblestones?

A. About ten feet.

Q. 9. Was there a stone wall in the well down as far as you removed the stone in the well?

A. There was.

Q. 10. Did the stone wall apparently extend further down?

A. It extended to the water; that was as far as I could see it.

Q. 11. At what depth did you reach water?

A. About twelve and a half feet from the surface of the ground.

Q. 12. At about what hour of the day did you cease to labor at the well, as you have described?

A. About five o'clock p. m.

1470 Q. 13. State whether at the time you visited this well it was a dry time and whether or not the subterranean streams and springs were high or low?

A. It was a dry time and springs were low.

Q. 14. Is there a lake in the vicinity of this well? And, if so, at about what distance and in what direction is the lake from the well and what is the surface of the ground as to being hilly or otherwise between the well and the lake?

A. There is a lake about a hundred rods a little east of south from the well and there is a little descent from the well to the lake.

Q. 15. For what purpose did you visit this well on the occasion you have referred to in your foregoing testimony?

A. To find the distance to water, I suppose.

Q. 16. In your answer to question 6 you say, "We then drew this old ladder out of the well;" to what ladder do you refer? Describe it and state where you found it and what you did with it.

A. There was about a two and a half by four stick, about fourteen feet long, with sticks nailed across it; we found it setting up in this well close to the side and covered up with the stone; we took it out of the well and brought it to Cortland.

Q. 17. When you first went to the well was the surface of the ground above the well undisturbed or otherwise and was the surface turfed over with growing grass?

A. The surface of the ground was undisturbed; I do not think there was much turf; it was on a gravelly knoll; it was like the rest of the field.

Direct examination of this witness closed.

1471 Cross-examination:

X Q. 18. Did you measure the distance from the surface of the ground to the water in the well? And, if so, with what appliance and how was it measured?

A. I measured it inside of the pipe with a line and sinker and after the pipe was drawn I measured with the same line down in the well.

X Q. 19. Of what material was the line used in measuring the distance from the surface to the water in the pipe? Describe the same.

A. It was a chalk line with a lead sinker; it was either cotton or linen; I do not know of what material it was made.

X Q. 20. The pipe, after it was driven into the dug well or inside of it and into the water, extended considerably above the surface of the surrounding earth, did it not?

A. It did.

X Q. 21. What distance above?

A. About two feet and a half, I should think.

X Q. 22. Did you measure the distance above?

A. I did.

X Q. 23. Do you remember what it was so as to state it now in feet and inches?

A. I do not.

X Q. 24. You have stated that you measured the distance from the surface of the ground to water as it rose in the pipe after the same was driven inside of the dug well; please describe the process by which this was arrived at.

A. We dropped the line inside of the pipe till it touched bottom, then drew out the line and measured from the top of the pipe to where the string was wet, and then deducted the distance from the top of the pipe to the ground.

X Q. 25. How did you ascertain how long the string was from the point where the same was wet to the point at the surface of the ground?

A. With a tape line.

X Q. 26. The string would naturally become wet some little
1472 distance above the level of the water into which it was dropped with a sinker by capillary attraction, would it not?

A. I do not think a tight-twisted string would a great deal.

X Q. 27. Was the string used in making this measurement a hard-twisted or a slack-twisted cord?

A. It was hard twisted.

X Q. 28. Was the surface of it smooth or rough?

A. Rough.

X Q. 29. Did it have the appearance of having been used as a chalk line?

A. No, sir.

X Q. 30. Was any allowance made, in the measurement of the distance from the surface of the ground to water in the tube, for the wetting of the string above the point to which water rose therein?

A. No, sir; there was not.

X Q. 31. How deep was the water inside of the tube at the time of the measurement?

A. About six or eight inches.

X Q. 32. The field in which this well is located had the appearance of having been recently plowed and cultivated, and had been apparently cultivated over the mouth of this well, had it not?

A. I should think it had been seeded—not a great while—and had been cultivated over it.

X Q. 33. The well was situated in a little gully or natural surface drain, which extended northward from the well to some considerable distance, and southward to the lake, did it not?

A. There was a bank to the north of the well, or a little west of north, where the old tank used to stand; I could not say that I observed that gully or drain.

X Q. 34. Will you swear that there is not such a gully or drain as was described in the last question?

A. No, sir; I will not.

X Q. 35. Did you discover, northwesterly, a few feet from this well, stones and cement of sand and lime which were, apparently, the remains of a receptacle for water constructed on a knoll or elevation at that point?

A. I saw the cement; I could not say that I noticed any stones; I saw the cement adhering to the stones.

1473 X Q. 36. Were the cobble-stones, with which this well was filled, large or small?

A. Some of them were large, and a good many small.

X Q. 37. Give about the dimensions of these stones.

A. There were a few of them nearly as large as a half-bushel measure, and a good many as large as a peck measure; the rest of them were smaller, down to the size of a goose egg.

X Q. 38. With what other material besides these cobble-stones you have mentioned was this well filled?

A. A few flat stones and a little dirt.

X Q. 39. Was the dirt such as had apparently rattled down among the stones from the surface above?

A. It was.

X Q. 40. You stated, on your direct, that you dug down to water on one side of the well; which side was it?

A. Northwest.

X Q. 41. Did you dig down below the surface of the water any; and, if so, how far?

A. I dug down to the surface of the water, but not below; so that I could see water.

X Q. 42. With what kind of stones was the well walled up, and how did the stones in the wall compare with those with which it was filled?

A. They were cobble-stone; a good deal the same kind of stone, I should think.

X Q. 43. Did you make any examination to ascertain whether or not the excavation you made on the northwest side of the well extended down to the bottom of the wall? State the result of your examination.

A. It extended down to water and I could see the wall down to water; I did not make any examination below the water.

X Q. 44. Did the wall at that point have the appearance of extending below the water line at that time?

A. I could not tell whether it extended below the water or not; the wall appeared to go to the water; I could not see below the water.

X Q. 45. Did you observe any flat stones in the wall at or near the water line in the well?

A. I did not.

1474 X Q. 46. Have you ever visited this well on any other occasion than that you have mentioned?

A. I have not.

Examination of this witness closed.

(S'g'd) W. T. BLANCHARD.

Sworn and subscribed before me this 17th day of September, 1880.

[SEAL.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

Proceedings adjourned until Saturday, September 18th, 1880, at 9 o'clock a. m., at this place.

1475 SATURDAY, *September* 18*th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Complainants appear by D. L. Hurlbut, Esq.; defendant appears by Irving H. Palmer, Esq.

CLINTON D. BOUTON called for complainants.

The witness, being duly sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation

A. Name, Clinton D. Bouton; age, 38 years nearly; residence, Dryden, Tompkins county, N. Y.; occupation, have been in the mercantile business most of my life; at present am not engaged in any business.

Q. 2. Have you held positions of trust in your town?

A. I have; I have been postmaster there for three years.

Q. 3. State whether you enlisted and became a member of the 76th Regiment of New York Volunteers, raised in Cortland county and vicinity, and mustered into the service in the fall of 1861.

A. I enlisted and became a member of the 76th regiment, which was mustered in 1861.

Q. 4. Did you go to the front with the regiment when it left Cortland in December, 1861?

A. I went with the regiment when it left here; my impression is that it was the first of December.

Q. 5. How early did you enlist, with reference to the date of mustering in of the regiment? And give the date of muster.

A. I enlisted September 18th, 1861; the regiment was mustered in the 4th of October, I think.

1476 Q. 6. Where was the regiment quartered while in Cortland?

A. On the fair ground.

Q. 7. How much of the time were you with the regiment on the fair ground during that time?

A. I was with the regiment all the time except, perhaps, two weeks that I was sick here at the Cortland House; on reflection, I went down to Virgil after I recovered, until I got stronger; I think the whole time of my absence was about two weeks.

Q. 8. Did you become acquainted, while the regiment was here, with its commandant, Colonel N. W. Green; and, if so, how intimately were you acquainted with him?

A. I became acquainted with Colonel Green while the regiment was stationed here—perhaps more intimately than I otherwise would have been—he was appointed guardian for me, I being a minor at that time; that was done to enable me to enlist.

Q. 9. How much was Colonel Green present on the camp ground during the time the regiment was stationed there?

A. I do not suppose that I could tell accurately; he was there frequently and seemed to have the charge and direction of the whole thing; I could not tell just the time he spent there.

Q. 10. Did you become acquainted with Herman F. Robinson, James C. Carmichael, and Byron Mudge during the time you were encamped on the fair ground?

A. I became acquainted with Herman F. Robinson and J. C. Carmichael; I do not know that I had any acquaintance with Mr. Mudge; I knew him by sight.

Q. 11. Were they members of that regiment under Colonel Green's command?

A. They were.

1477 Q. 12. At the time you were in camp upon the fair ground here did you know anything, from information or otherwise, of the discovery or invention of the driven well, so called? And, if so, state what your first knowledge and information concerning it was, and when obtained—whether before or after; and, if after, how long after the muster in of the regiment.

A. I knew something of the driven well from information. It was after we were mustered into the United States service; perhaps within three or four weeks afterwards. As I remember it, it was talked up there in camp, some thinking it would be a success, others a failure. It made some controversy, and as the result of that controversy I went and saw the well; it was located in the cook-room, on the fair ground—I think on the south side.

Q. 13. Did you see the well when it was being put down?

A. I do not think I did.

Q. 14. State whether you had information at about that time of another such well having been put down at Colonel Green's dwelling-house in Cortland; and, if so, from what was that information derived?

A. I did have information that there was another well of the same kind being put down at Colonel Green's house. I think it was after the well was put down in the cook-room. I do not know that I could state from whom I derived my information. It was talked there in camp among the soldiers.

Q. 15. You say there was considerable talk among the men about these wells. Please state how they were regarded as being new and novel, and whether it was new to you.

1478 A. So far as I know, it was regarded as new and very novel indeed; it was entirely new to me.

Q. 16. In all the conversations and discussions you had with soldiers and men of the regiment to whom was the discovery or invention of that method of obtaining water ascribed, or whose invention was it called or spoken of as being?

A. It was ascribed to Colonel Green and referred to as his invention.

Q. 17. State whether, in the conversations and discussions referred to, you ever heard the invention accredited to Byron Mudge, or any other person than Colonel Green.

A. No, sir.

Q. 18. Were you present in camp at the time McNett was shot by Colonel Green upon the occasion of an alleged mutiny in camp, and did you have personal knowledge of that occurrence and of the state of things in camp which followed?

A. I was present and had personal knowledge of that occurrence and of the state of things which followed.

Q. 19. State whether you were aware of the excitement in camp and among the people and citizens outside occurring from the shooting of McNett, and also state the extent and intensity of excitement.

1479 A. There was a great deal of excitement in camp, and I found out shortly after that there was a great deal of excitement here in the town among the citizens; that night, after the shooting, the excitement was so intense that it was thought best to put the camp into a position to defend itself against any attack. It was rumored that the people were to make a raid on the camp. I think there was a piece of artillery brought there that night to be used in case of necessity.

Q. 20. Did you know of any difficulty as regards Colonel Green, that the shooting of McNett involved him? And, if so, state.

A. He was involved in trouble, originating out of the shooting of McNett; I suppose, or as I understood, from the shooting of McNett, a court — inquiry was instituted by the Governor; I think Green was acquitted and restored to his command; this was at Albany; Colonel Green was put under arrest while we were stationed at Fort Totten, at Washington; he was kept confined in his quarters for a short time; I think that he then had an examination; I think it was a court of inquiry, held at Washington; he, after the court of inquiry, came to Cortland and never resumed command of the regiment.

Q. 21. State, Mr. Bouton, whether, after the McNett affair and down to the time when Colonel Green was put under arrest at Washington, charges of insanity were made and circulated against Colonel Green to any extent among the men of the regiment while at Washington.

A. I frequently heard charges of insanity brought against Colonel Green during that time.

Q. 22. How long did he remain under arrest there at Washington?

1480 A. I cannot state; my idea is somewhere in the neighborhood of a couple of months.

Q. 23. Did he ever resume his command of the regiment after his arrest at Washington?

A. He did not.

Q. 24. Did you see him at Washington after his return to Cortland during the war?

A. I did not.

Q. 25. Were you a witness on the trial of the indictment of Colonel Green for the shooting of McNett here at Cortland?

A. I was.

Q. 26. Please state when that was, as near as you can, and the extent of the feeling and excitement which prevailed here at that time, as near as you can, if you know.

A. I do not remember when it was; it was after the war; I came here simply as a witness and went home when I got through and knew very little of the feeling or excitement, if there was any.

Direct examination of this witness closed.

Cross-examination:

X Q. 27. Had you any acquaintance with Colonel Green previous to your enlistment in the 76th regiment?

A. No, sir.

X Q. 28. How intimate were you with him after your enlistment?

A. I became pretty well acquainted with the Colonel and he with me; I met him frequently, but did not associate with him.

X Q. 29. What position did you hold in the regiment?

A. Corporal of Company F.

X Q. 30. Who was captain of that company?

A. J. H. Barnard.

X Q. 31. Is he now living?

A. I have not heard of his death; I understand he resides at Homer.

1481 X Q. 32. Do you know Henry Woodruff, of this place?

A. No; I do not.

X Q. 33. Were there not persons who were not members of the 76th regiment engaged on the camp ground in instructing recruits of this regiment in squad drill after the regiment was quartered at the fair ground?

A. I do not know whether there was or not.

X Q. 34. J. C. Carmichael did not go into the service as a member of the 76th regiment, did he?

A. I do not think he did.

X Q. 35. Byron Mudge did not enter the service as a member of the 76th regiment, did he?

A. I knew him by sight only; I do not know when he left the regiment or whether he was ever a member of it; I simply saw him at the fair ground, connected with the regiment.

X Q. 36. You do not know whether or not Colonel Green held any commission or authority as colonel of the 76th regiment at any time while the same was quartered at the fair ground, do you?

A. I have no personal knowledge that he held such commission or authority.

X Q. 37. By whom was the information respecting the driven well you have mentioned as being constructed in the cook-house of the regiment, on the fair ground, communicated to you?

A. I could not say by whom.

X Q. 38. Did Colonel Green ever mention it in your presence?

A. I do not think he did.

X Q. 39. From what source, then, did you derive your information respecting this well in the cook-house of the regiment?

A. From conversations and discussions with the men of the regiment.

X Q. 40. Can you now name any person whom you heard mention or discuss this well in the cook-house of the regiment or that which you stated, on your direct examination, you thought was afterwards constructed at Colonel Green's house?

1482 A. I do not think I could name any particular person who mentioned either of them.

Proceedings adjourned until 1.15 o'clock p. m.

1.15 O'CLOCK P. M.

Convened pursuant to adjournment.
Present: As before.

Cross-examination of CLINTON D. BOUTON resumed:

X Q. 41. Was it usual, while the 76th regiment was quartered at the fair ground, for large numbers of persons from Cortland and the surrounding country to visit the camp?

A. It was.

X Q. 43. Was this of daily occurrence during the entire time the regiment was quartered there?

A. Yes; I should say so; I do not remember about Sundays.

X Q. 43. Was this driven well in the cook-house visited by a large number of persons during that time?

A. Not that I know of.

X Q. 44. Have you no knowledge on the subject of their visiting the cook-room?

A. No; I have not.

X Q. 45. Did you witness any part of the construction of this well in the cook-room?

A. I have no recollection of seeing it while it was being constructed.

X Q. 46. Did you observe how many pipes or tubes were used in its construction, and how they were situated with respect to each other?

A. I do not think I did; I could not explain it at all.

X Q. 47. Can you describe the well in detail—as to how constructed and how it appeared?

A. I could not.

X Q. 48. Did you know anything concerning any mutiny or alleged mutiny in the camp of the 76th regiment, of your own personal knowledge?

1483 A. I did not know personally of any mutiny, but heard it talked that it was bordering on mutiny.

X Q. 49. What did you hear talked of as bordering on mutiny?

A. After the shooting of McNett by Colonel Green McNett's company were very indignant about the shooting, and it was rumored in camp, and the rumors were very rife, that they proposed to clean out Colonel Green's friends there or those who sustained him. Of course, there were sides taken there in camp the same as there were here in this town.

X Q. 50. Then the alleged mutiny or disturbance in camp did not precede, but follow, the shooting of McNett by Colonel Green, did it not?

A. It did, so far as my knowledge of the affair is concerned.

X Q. 51. Did you know of any combination or concerted action of any persons to forcibly resist the orders or authority of Colonel Green in camp?

A. I did not.

X Q. 52. Was it not several days after the shooting of McNett before any artillery was brought to the camp, and were there not then two brass field-pieces brought from Truxton and planted within the camp?

A. I should swear that there was a piece of artillery brought there the same night after the shooting.

X Q. 53. Do you know where that piece of artilley was procured, or by whom it was brought to camp?

A. I do not. I know what the report was about it; that is all I know about it. It was reported that the piece was brought from Truxton.

X Q. 54. By whose orders was it brought to the camp? State, if you know.

A. I do not know.

X Q. 55. Please describe the piece of artillery which you say was brought to camp by Colonel Green the night following the shooting of McNett.

A. I did not examine it closely enough to give any description of it.

X Q. 56. How did you happen to witness the shooting of McNett by Colonel Green?

1484 A. I happened by accident to be standing at the time near the scene.

X Q. 57. Describe the transaction and the location where it occurred.

A. Captain McNett was under arrest in the officers' quarters. Colonel Green rode into camp, where he saw Captain McNett standing upon the steps of the officers' quarters, outside of the building. Colonel Green ordered Captain McNett to his quarters; he failed to go into his quarters as ordered. I am not certain whether he made any reply just then or not. Colonel Green ordered Captain McNett to his quarters again. McNett still refused to go. Colonel Green then dismounted from his horse; he then ordered Captain McNett into his quarters again. McNett refused to enter. Colonel Green said, "Captain McNett, do you refuse to obey my orders?" McNett said, "I do." Whereupon Colonel Green drew his revolver and fired. The first shot, I think, passed above him; the second shot took effect in his face, and the ball passed around into his neck. During this time, while Green was drawing his revolver, McNett stepped back from the step and stood in the doorway of the officers' quarters when the shot took effect. This is as accurate a statement as I can give of it to-day. I may not have given all the little details. It was nineteen years ago, and the affair has generally passed out of my mind.

X Q. 58. Were you a witness on behalf of Colonel Green at his trial on the indictment against him for the shooting of McNett?

A. Yes, sir.

X Q. 59. Was Captain McNett under guard in the officers' quarters, or was a guard stationed in view of him at the time the shooting took place?

A. I do not think he was what we would consider under guard. Guards were stationed at the entrance of the grounds. I think it was in view of the scene of the shooting.

X Q. 60. Do you know anything of the court of inquiry at Albany or at Washington, before either of which Colonel Green was on trial, of your own personal knowledge?

1485–1495 A. I do not.

X Q. 61. Have you not been informed and do you not understand that the court of inquiry convened at Albany, before which Colonel Green was summoned to appear, was convened at his instance or at his request?

A. I do not know anything about that court of inquiry at all.

X Q. 62. Do you know any more about the court of inquiry at Washington than you do that convened at Albany?

A. I do not.

Examination of this witness closed.

(S'g'd) CLINTON D. BOUTON.

Subscribed and sworn to before me this 18th day of September, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

By request of complainants, proceedings herein are held open until 9 o'clock p. m.

9 O'CLOCK P. M.

Proceedings herein adjourned *sine die*.

1496 JESSE M. BLANCHARD, being produced by the complainants and by me sworn in the above-entitled cause, testifies as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is J. M. Blanchard; my age is seventy-two the present month; residence, Cortland village, N. Y.; occupation, farmer.

Q. 2. Do you know one of the complainants, Noah J. Parsons, and is he a relative of yours?

A. I do; he is a son-in-law of mine.

(At this point D. L. Hurlburt, Esq., also appeared and proceeded with the examination of this witness.)

Q. 3. About two or three years ago did you, at the request of Mr. Parsons, go to Preble, in this county, to see Mr. Moses Tallman in regard to an alleged well there made by William E. Tallman?

A. I did.

Q. 4. Did you see Mr. Moses Tallman on that occasion? And, if so, please state fully what occurred between you in regard to it.

A. I did; I saw Mr. Tallman at his mill, a short distance down the stream from his house. I think I first said to him that I heard he had a pipe that was said to have been driven in a well; then I told him that I would like to see it. He went with me to his house and he showed me the pipe there; he told me that Mr. Porter had told him that it was worth a hundred thousand dollars to well owners.

Q. 5. Did you go to Mr. Tallman's with Mr. Parsons on one occasion shortly after that? And, if so, state what occurred between you and Mr. Tallman.

A. I did; I found him at the same mill I did before. I told him Mr. Parsons was with me in the wagon and would like to see that pipe that I had seen before. He wanted to know whose interest Mr. Parsons was in, whether Mr. Green's or the well owners. I told him he was in the interest of Mr. Green or Andrews, I sup-
1497 posed. He said he could not see it then. That was the end of the interview.

Q. 6. Did you, this present summer, go to Preble with Mr. Parsons? If yea, state about when it was, and who accompanied you.

A. I did; I think it was in August—the first of August or the last of July; my son Trowbridge accompanied us.

Q. 7. What did you go there for on that occasion? And please state what was done.

A. We went there to drive a pipe, and took the pipe with us for the purpose of ascertaining the depth of the water where they claimed to have been a well dug before. We drove to a man by the name of Ballard, south of Preble village about a mile; we saw Mr. Ballard; Mr. Ballard went with us to show where the old well was; it was about twenty rods, perhaps further than that, east of his barn, and the ground was smooth where he said the well was; he pointed out, as well as he could, where the well was, but he did not get within a few feet of where we found it; we stabbed around with the bar to find where the walls of the well were; it was all plowed over; we were not sure that we had found the walls by striking with the bar; then we dug to ascertain where the old well was; we dug about eighteen or twenty inches, perhaps more; we struck the wall at, perhaps, eight or ten inches when we struck the wall; we then drove the pipe on the inside of the wall on one side of the well; I think we drove about twelve feet or a little more from the surface of the ground before we found water.

Q. 8. When you had found water what next was done?

A. Mr. Parsons started then after some one to come and measure the water in the pipe; then my son and I went to cleaning out the old well; then Mr. Parsons returned with Mr. Van Hoesen and another gentleman, and they measured the depth of water in the pipe; Mr. Van Hoesen remained there, and we dug down about two feet and struck the end of a strip of board about one
1498 inch by three inches; we then dug five or six feet and took
out a piece of scantling about five or six feet long, and we found on this strip of board three whole slats nailed across it and one broken one; then we took a chain and hitched around it, and took a lever and drew it out; then we dug the well deeper, and got down about eight or ten feet, so by working a bar and withdrawing it we could see water, when it became night; then we took out the ladder and pipe and brought them back to Cortland.

Q. 9. I show you a strip of board about three inches by an inch, and about twelve or thirteen feet long, with four strips of board nailed across it, and ask you whether you have ever seen it before?

A. I have; this is the same one that we took out of the well.

Q. 10. Is it in the same condition that it was when you took it out of the well?

A. It is.

Q. 11. Did you ascertain that night before you left whether or not you had got down to the bottom of the well?

A. We did ascertain; we took a bar and worked around, and found we had not got down as low as the bottom of the well.

Q. 12. Have you been to that well since?

A. I have not been there since; that is the only time I was ever there.

Q. 13. What was the nature and appearance of the earth that you took out of the inside of the stone walls of this well?

A. It was mostly cobble-stone and some earth.

J. M. BLANCHARD.

Subscribed and sworn to before me this 16th day of Sept., A. D. 1880.

(S'g'd) H. L. BRONSON,
Notary Public.

Case adjourned to Friday, Sept. 17th, 1880, at 9 o'clock a. m., same place.

1499–1500 Mr. Hurlburt appears, and case is called pursuant to adjournment.

Sept. 17, 1880, 9 a. m.—Held open.

SEPT. 17TH—4 p. m.

Plaintiffs appear by D. L. Hurlburt, Esq., pursuant to case being held open, and John W. Suggett, Esq., appears for the defendant.

1501 JOHN S. CORNUE, being produced by the complainants and being duly sworn, testifies as follows:

Q. 1. State your name, age, occupation, and place of residence.

A. My name is John S. Cornue; my age is fifty-five; residence, Preble, Cortland county; occupation is blacksmithing.

Q. 2. How long have you resided in Preble?

A. I have lived in Preble probably forty years.

Q. 3. Where do you reside in Preble?

A. I reside at Preble village.

Q. 4. How far is Preble village from Cortland village?

A. I should say it is ten miles.

Q. 5. Did you know William E. Tallman in his lifetime while he resided in the town of Preble?

A. I did.

Q. 6. Please state whether you were well acquainted with him during the time that he resided there.

A. I was well acquainted with him.

Q. 7. How far did you reside from him during that time?

A. It must have been from two to two and one-half miles by the road.

Q. 8. How near Preble village did you live at that time?

A. I lived in the village.

Q. 9. Please state if you have known Moses Tallman since he has lived in the town of Preble, and how intimately you have known him, if yea.

A. I have been well acquainted with him; have done work for him, and have been as well acquainted with him as I could and not be one of my own family.

Q. 10. Do you know of the process for getting water commonly known as the driven well?

A. Well, sir, I do know something of it.

1502 Q. 11. Have you seen wells made by that process; and, if so, how?

A. I have seen them drive a rod into the ground until they got to the water, and withdraw the rod and put in a round gas pipe pointed at the lower end and perforated with holes, and screw a pump on the top of it, and usually a cast-iron pump, and pump water.

Q. 12. Please state whether the earth is compact tightly around this pipe that is put into the ground as you state?

A. It was tight as it could be after driving the rod.

Q. 13. When was that process used first in your town for obtaining water?

A. I cannot state the time when they were driven first, but it must have been from '64 to '65 to '66.

Q. 14. Who put down those first driven wells in your town, so far as you know?

A. The first I recollect of was one at the depot and one at Mrs. Outs'. There were a number in the neighborhood made about the same time, but I cannot state which was first; and Mr. Dunham, of Homer, put them down, so far as I know.

Q. 15. What process for getting water, or kind of wells, were used in your town prior to the time you say the driven wells were put down there?

A. They were dug wells stoned up. This was the only kind of well that I knew of before the driven wells.

1503 Q. 16. How were the driven wells regarded by your townspeople when they were first put down in your town—that is, whether they were regarded as new and novel and useful, and whether their merits were talked about and people went to see them?

A. They were considered a new thing, of course, and a convenient way of drawing water—easier than digging and stoning wells; and if a man wanted such a well put down he would go and see his neighbor's to see how that worked. They were talked about, of course, as men talk about new inventions and new things.

Q. 17. When did you first hear of this new process of obtaining water by driven well?

A. 20. The first well I heard of was up on the fair ground, driven by Col. Green.

Q. 18. About when was that?

A. If I am not mistaken, it was in the fall or latter part of summer of 1861.

Q. 19. What fair ground do you refer to, and where located?

A. It is situated just north of Cortland village, in Cortlandville, I believe.

Q. 20. Do you remember whether it was the time that the 76th regiment was in camp there?

A. It was the time the regiment was encamped there that Col. Green was colonel of; I do not know positively whether it was the 76th or not.

Q. 21. Did you know of Wm. E. Tallman erecting a windmill on his farm for the purpose of pumping water for stock?

A. Yes, sir; I recollect it.

Q. 22. Please state when it was erected, as near as you can.

A. In 1859, I think.

Q. 23. Please give the location of that windmill, with reference to the land and roads as they now are?

1504 A. Well, sir, the windmill was erected on the southwest corner of the farm, now occupied by one Ballard and owned by Horace Hiscock. I should say forty or fifty rods from the southwest corner of the farm and about eighty rods east and a little southeast from the barn.

Case adjourned to Sept. 18th, 1880, 9 a. m.

SEPTEMBER 17TH, 1880—7.30 p. m.

Plaintiffs appear by D. L. Hurlburt, Esq., and defendants by John W. Suggett, Esq.

And by agreement of parties they appear at this time the same as if it had been regularly adjourned to this hour by the notary.

1505 Q. 24. Did you ever go to this windmill; and if so, about when was it? And state the kind of well that it pumped water from.

A. I was at the windmill in the fall of '59; I went there to see the mill and saw the well; it was a dug and stoned well, and a pump was in it; cannot give the depth.

Q. 25. Did you observe as to whether there was water in
1506 the well at this time? And also state whether that was the first windmill in your town.

A. There was water in the well, and this was the first windmill of its kind that I recollect of being put up there.

Q. 26. Did you ever know or hear that there was any new process for obtaining water, such as a driven well or otherwise, put into the bottom of that dug well where the windmill was until within the last year and a half?

A. Leave out the year and a half and I say no; I may be mistaken about the year and a half, but it seems to me that it was a little longer than that when I heard talk about this being a driven well.

Q. 27. In any conversations that you have had with Moses Tallman or Wm. E. Tallman in his lifetime did either of them ever state to you that they had originated or invented a new process for obtaining water, such as a driven well or otherwise, or had employed any such new process in the bottom of that dug well where the windmill was, or anything to that effect, prior to two or three years ago?

A. No, sir; they have not, prior to the commencement of this suit.

Q. 28. Were you well acquainted with them prior to 1859, and did you meet them frequently?

A. Yes, sir; I was well acquainted with them, and met them frequently.

1507 Q. 29. State whether or not it has been a very wet or dry summer in Preble this year.

A. It has been very dry.

Q. 30. Are there several small lakes or ponds in the vicinity where this windmill was? And, if so, state whether the water has been very low or not this season in those lakes.

A. There was one lake, called Green Lake, that was but a few rods from this well, and there was one over east, called the Goodel Lake, and another one there called Little York Lake; the water has been very low in all these lakes this season.

Direct examination here closed.

Case adjourned until September 18, 1880, at 9 a. m., same place.

SEPTEMBER 18TH, 1830—9 a. m.

Complainants appear by Geo. L. Waters, Esq., and case held open to 9.45 a. m., at which time complainants appear by Geo. L. Waters, Esq., and the defendant appears by John W. Suggett, Esq.

1508 For the accommodation and at the request of the complainants the witness, JOHN S. CORNUE, is here produced for cross-examination:

X Q. 31. When did you move to Preble?

A. My father moved in there when I was about seven or eight years old.

X Q. 32. When did Wm. E. Tallman move to Preble?

A. I should say from 1854 to 1856, but cannot be positive as to the year.

X Q. 33. When did Moses Tallman first move there?

A. I cannot state the year, but think it was as early as 1852 or 1853.

X Q. 34. What was William E. Tallman's business while there?

A. He was a farmer and carried on his farm for the first few years, and was also a miller.

X Q. 35. What positions of public trust did he hold; was he not supervisor and justice of the peace of the town?

A. He was supervisor one or two terms; I think he was not justice.

X Q. 36. Was he a man of a mechanical turn of mind, and did he not make some curious inventions about his mill and premises?

A. He was a man of a mechanical turn of mind, and was a man that was always fixing up things around his mill and barn, and had an arrangement for thrashing from his mill.

X Q. 37. Did you not hear that Wm. E. Tallman invented a very ingenious and mechanical device by which to utilize the water twice that propelled his mill?

A. I cannot say that I have; it seems to me that I have heard about it, but I cannot say about that.

X Q. 38. From what you observed of Wm. E. Tallman and his habits, was he not a man who had all the machinery he used, or other mechanical devices, made upon fine mechanical principles, and with particular regard to everything working nicely and accurately?

1509 A. He was a man that whatever he did he wanted it done well, and I guess he kept at work until he got it in that shape.

X Q. 39. From your observation of him, was he not a neat workman in mechanical subjects, and did he not pay special regard to having all his devices made neatly, with good workmanship and with due regard to fine mechanical appearance?

A. I do not think that William was so much of a workman himself, and I do not think he was particular about neatness of it, but he wanted it to work well.

X Q. 40. From your observation of him, was he not a man given somewhat to studying up new inventions and discoveries and testing their practicability, and his mind seem to run somewhat in this direction?

A. I think he was about his own place.

X Q. 41. When will you fix the date that you saw the driven well at the depot?

A. I don't think I can fix the date when I first saw it.

X Q. 42. Will you swear that it was not prior to the year 1864?

A. I cannot tell.

X Q. 43. Prior to the putting that well down at the depot you had seen driven wells made by Suggett, Mudge & Dunham or heard of them in and about Cortland village and Homer, had you not?

A. I might of heard of wells being put down before that in Homer, but I cannot say.

X Q. 44. These wells that were put down in Preble in 1864 or 1865 there was no secrecy enjoined or practiced in making them, was there?

A. There was no secrecy about it, I think.

X Q. 45. Were they not openly and publicly there made and used?

A. They were.

1510 X Q. 46. And you do not know but what the person that made them was acting as agent of the complainant, Nelson W. Green, do you?

A. I do not know any other way than by hearsay; I heard Suggett was the patentee, and supposed Dunham was acting as agent of Suggett.

X Q. 47. How did you come to hear about this well on the fair ground; did you go there and see it?

A. No, sir; I did not go and see it; I heard it from people that were there and visited the regiment.

X Q. 48. You were on the fair ground yourself, were you not, during the time the regiment was there?

A. I do not think I was ever on the fair ground while the regiment was there; that is my best recollection that I was not.

X Q. 49. Were not people going there and coming from there all the time while the regiment was there?

A. I should think there was; there were people from our town who went there; two or three boys from our place belonged to the regiment, I think.

X Q. 50. Did you not frequently pass the fair ground and come to Cortland village during that time?

A. Yes, sir.

X Q. 51. And did you not see the people of Cortland village and Homer passing through that ground generally?

A. I should say I did.

X Q. 52. And were they not passing so from both villages, as you observed, and was there not a continuous stream so passing while that regiment was there?

A. I do not know as I can answer such a question, whether there was a continuous stream of people passing or not. It rather seems to me that people were not allowed to visit the grounds just as they pleased, but I am not sure about that.

X Q. 53. When you observed were not people passing to and from Cortland village and Homer village to and from that ground?

1511 A. I do not know as I took particular notice. I may have seen a thousand men go in and out from the grounds, but I cannot say whether they were soldiers or citizens.

X Q. 54. Since you have lived in the village of Preble or in the town you have been away some, have you not?

A. I have lived out of the town, but not in twenty-five years.

X Q. 55. Have you not been out of town some on business matters within twenty-five years?

A. Yes, sir; have been out three weeks *to* a time.

X Q. 56. And you cannot tell how many times and the exact dates when you were thus out of town?

A. Yes, sir; I can very nearly. I was out the most in '72. I was out a good deal most of the time in the summer months, and in '73 I was out a good deal, but not as much as in '72.

X Q. 57. Did you keep any memorandum or diary so that you know exactly where you were in 1859 on each day?

A. I did not keep a diary of where I was, but I kept an account of my work every day so that I could show a man pretty nearly where I was every day. I was at work at mason work, and charged my time every night.

X Q. 58. Have you got that book with you?

A. No, sir.

X Q. 59. Where is it?

A. I think it is at home, and think I could find it among my old books.

X Q. 60. Where did you last see it?

A. I cannot tell when I saw it last. I have an old desk where I keep my old books and cannot say when I saw it last.

X Q. 61. Have you seen it to look at within the past five years?

1512 A. I could not say that I have, sir, but think I can find it.

X Q. 62. Have you been in Cortland village as a witness ready to be called in this case prior to yesterday, September 17, 1880?

A. Yes, sir.

X Q. 63. How many times have you been down before?

A. Only once before this.

X Q. 64. When was that?

A. If I recollect right, it was three weeks ago.

X Q. 65. Have you not been down before this week?

A. No, sir.

X Q. 66. Who summoned you here this time?

A. I guess it was Andrews.

X Q. 67. And have you been in waiting ready to come down any time that you could be called during the past week?

A. I do not know as I have been waiting.

X Q. 68. Were you not informed that they wanted you as a witness in this case, and that they wanted you to be ready when they called on you, or words to that effect?

1513 A. When I was down here they told me that they could not take my testimony then for some reason, but when they wanted me they would send for me.

X Q. 69. And when did they first call on you during the present week?

A. Yesterday, the 17th, Mr. Andrews telegraphed me.

X Q. 70. And on the receipt of that telegram you immediately came down?

A. I received the telegram in the morning and came down about one o'clock.

1514 Case adjourned to 2 p. m., September 18, 1880, at the same place.

Case convened pursuant to adjournment; same parties present.

1515 X Q. 71. Where did you reside in 1859?

A. In Preble village.

X Q. 72. Whereabouts in the village?

A. In the east part of the town, near the depot—towards the depot, but not near.

X Q. 73. And your business then was masonry?

A. It was.

X Q. 74. Were you learning your trade then, or had you learned it?

A. I had learned it.

X Q. 75. Who did you work for that year, 1859?

A. I did two jobs right there at the Methodist and Presbyterian churches that year. I do not know as I can tell the other jobs I worked at that year.

X Q. 76. You did not work for Wm. E. Tallman, did you?

1516 A. I cannot say certain whether I worked for Wm. E. Tallman that year or not, but think I worked for him in the spring of 1860.

X Q. 77. How far was his mill and house and farm buildings from the place where this windmill was?

A. I should think it was not far from three-quarters of a mile.

X Q. 78. Does DeWitt C. Callen live nearest of anybody to the place where this windmill was?

A. I should think he did.

X Q. 79. And did he live there in 1859?

A. I cannot say positively whether he did or not.

X Q. 80. Is it not your best recollection that he did?

A. I do not know as I can say; don't know as I recollect of his living there, but he might.

X Q. 81. You say you saw the pump operated by this windmill in the well, and where in the well was it?

A. The pipe was put in the well, and as to whether it was on the side or center of the well I cannot say and cannot explain it.

X Q. 82. Then you did not observe closely as to how the pump and pipe was arranged, did you?

A. I did not, so that I can explain it to-day.

X Q. 83. The position of this well is in a sort of hollow, is it not, where, in the spring and fall, after heavy rains and when the snow is going off, water runs along there; is this not so?

A. The well is in a hollow, and in the spring and fall water would set down in there, but think it does not run, but yet it may.

X Q. 84. You have not observed very carefully as to the last point, have you?

A. I never did.

X Q. 85. You did not go down into that well at the time you were there, did you?

A. I did not, sir.

X Q. 86. Then you do not know, of your own knowledge, but what there was a perforated pipe driven in the bottom of that well through which water was obtained, do you? Please answer directly.

A. I do not, sir, of my own knowledge.

1517 X Q. 87. You went there to see that windmill more than the well, did you not? Please answer directly.

A. I went to see the windmill.

X Q. 88. If you did see any water in that well do you know how deep it was?

A. I do not.

X Q. 89. If you did see any water in that well do you not know that it was surface water or water that had leaked from the pump or adjacent reservoir or the apparatus connected therewith?

A. I did not think it was at that time of the year; I did not think it was surface water nor water that had leaked in from the reservoir; I thought the well was dug down nearly on a level with the lakes.

X Q. 90. I did not ask you for what you thought, but what you know, and that part of your answer which is not responsive to my question I repudiate; will you swear positively now that if you saw any water in that well at that time it did not get therein from the sources mentioned?

A. I cannot swear positively that the water in the well did not come from the top of the ground.

X Q. 91. Did you not see a large reservoir about ten feet across, four or five feet deep, placed in the bank of the hollow where the well was made and made by stone and water lime in the ordinary way in which cisterns are made and having numerous outlets and pipes running underground therefrom to various localities?

A. I do not recollect of seeing anything of that kind with water in.

X Q. 92. Do you remember of seeing any such thing at all? Answer directly.

A. I cannot answer that question.

X Q. 93. Have you no recollection upon the subject?

A. I have, as Hoose says, a vague recollection.

X Q. 94. Is it very vague?

A. Somewhat vague.

X Q. 95. About twenty-one years having passed since you saw this windmill and the well there, is it not true that you do not remem-

ber very distinctly upon any of the points connected there-
1518 with, except that there was a windmill and a well there; and,
as to the details and as to the location of the pump and pipe
in that well, do you not find that your recollection is very vague
and simply amounts to an impression?

A. I recollect very distinctly that there was a well there and a windmill and a pump.

X Q. 96. Did you ever examine that well with a view to being a witness in any case?

A. No, sir; I did not.

X Q. 97. You do not mean to be understood on your direct examination, do you, as testifying that you knew everything that Wm. E. Tallman said or done at that time or subsequent thereto?

A. I do not think that I testified that I did on the direct.

X Q. 98. Is it not true that Wm. E. Tallman might have invented and discovered a driven well and you not have known anything about it?

A. He might have invented a driven well and I not known it, but if he had got it patented I should have been apt to know about it.

X Q. 99. Will you please endeavor to answer my question and not make voluntary statements; I now ask you how many times you will swear positively to that you were at Wm. E. Tallman's place in 1859?

A. I cannot answer such a question as that; I was at William E. Tallman's frequently, but as to swearing positively to the number of times I cannot do it.

X Q. 100. (Question repeated.)

A. I shall give you the same answer.

X Q. 101. Question repeated.

A. I shall give you the same answer that I gave before.

X Q. 102. Do you understand the question? Answer directly.

1519 A. I do.

X Q. 103. Will you swear positively that you saw any water in that well when you visited it in 1859? Answer directly.

A. My recollection is that I did, but I do not want to say positively that I did or that I did not.

Cross-examination closed.

Redirect by Mr. Waters:

R. D. Q. 104. You have stated, in answer to cross-question 86, in substance, that you have no positive personal knowledge that there was not a perforated pipe driven in the bottom of the well of Wm. E. Tallman's through which water was obtained; state whether or not you think it probable, or even possible, in view of your intimate acquaintance with Wm. E. Tallman and the publicity given to this well, that such could have been the case and not have come to your personal knowledge.

A. I have no knowledge whether the pipe was perforated or not, but a pipe could have been put in without perforations which would draw water; it is possible that it might have been the case.

Recross-examination :

X Q. 105. Redirect question 104 is now here read to you. Do you not say that it is even possible and probable that such would be the case, and did you not so answer, that you would have no knowledge thereof by hearsay or otherwise ?

1520 A. I said that it might have been possible, but I have no recollection of it being called a driven well.

X Q. 106. Might it not be probable that that pipe could have been driven in the bottom of that well and still you not have known of it by hearsay ?

A. I do not think it could.

X Q. 107. In making that answer you associate apparently something else with it. Now, supposing that that pipe was put in there or driven into the bottom of that well and water obtained from it, do you swear positively that it is not probable that you should not have known of it, you having not been present or help to make it ?

A. I think if the pipe had been driven in the well and used as a driven well, I think I should have heard of it.

X Q. 108. Will you swear positively that you would have heard of it ?

A. I would not say positively that I would have heard of it, but in all probability I would.

X Q. 109. How many times will you swear positively that you were at that well ?

A. I have sworn that I was there once.

X Q. 110. How many times will you swear positively that you saw Wm. E. Tallman or was at his place ?

A. I answer it the same as I did before.

X Q. 111. Will not fix any number ?

A. I cannot.

X Q. 112. Do you refuse to fix any number ?

A. I cannot fix any number ; I was there a great many times.

X Q. 113. Then you can swear positively that you were there once, can't you ?

A. I can swear positively that I was there once, but I was there more than once.

X Q. 114. Do you swear positively that you were there more than once ?

A. Mr. Suggett, I was there a great many times during the year.

X Q. 115. How many times will you swear positively that you were there ?

A. I was there a great many times.

X Q. 116. Have you been treasurer of Cortland county ?

1521 A. Yes, sir.

X Q. 117. And were you a defaulter ?

A. I do not suppose it is any of your business ; you were not injured by it.

X Q. 118. Do you refuse to answer the question ?

A. I refuse to answer any question outside of this case.

X Q. 119. Do you refuse to answer the question ? Please answer yes or no.

A. I shall refuse to answer any question outside of this case.

X Q. 120. Do you refuse to answer that question? Answer, yes or no.

A. Answer same as before.

X Q. 121. Mr. Cornue, you understand the question; do not try to evade it or equivocate, but please answer, yes or no, whether or not you refuse to answer this question—yes or no.

A. I have not tried to equivocate; I will not answer the question.

R. D. Q. 122. Mr. Cornue, I have observed the insulting manner of the counsel in the last half-hour of this examination and I do not blame you for your refusal to answer this question, put purposely to hurt your feelings; but, that the court may know, I ask of you to explain in regard to the county treasurer business. Is it not true that your business was done at a bank and you did not have the handling of the money, and that at the end of your term a deficit of about $1,200 was found in your account, which you were not responsible for and which was paid by your bondsmen without loss to the county?

1522–1531 A. Yes, sir.

X Q. 123. Were you a defaulter, as county treasurer, of this county? Please answer directly.

A, Yes, sir; I was.

Examination of this witness here closed.

J. S. CORNUE.

Subscribed and sworn to before me this 18th day of Sept., 1880.
(S'g'd) H. L. BRONSON,
Notary Public.

1532 United States Circuit Court, District of Iowa. In Equity.

W. D. ANDREWS *et al. vs.* GEORGE HOVEY.

OFFICE OF FREDERICK HATCH, NOTARY PUBLIC,
CORTLAND, NEW YORK,
MONDAY, *September* 13*th*, 1880—10.15 a. m.

Pursuant to notice and admission of service in this case, dated the 2d day of September, 1880, and hereto attached, complainants appear by Noah J. Parsons, one of the complainants; defendants do not appear; case held open.

September 13th, 1880—11.30 a. m.—Complainants appear by Noah J. Parsons.

Adjournment taken to September 13th, 1880, at 1.15 o'clock p. m., at same place.

September 13th, 1880, 1.15 p. m.—Complainants appear by George L. Waters, of counsel for complainants; defendants do not appear

MATTHIAS VANHOESEN, being duly sworn for complainants in the above-entitled action, testified as follows:

Q. 1. Please state your name, age, place of residence, and occupation.

A. My name is Matthias Vanhoesen; my age is 75 years; my place of residence is Preble, Cortland county, New York; my occupation is that of a farmer.

Q. 2. How long have you resided in Preble?

A. Seventy-four years and upwards.

Q. 3. How is the town of Preble located geographically in relation to the village of Cortland?

A. It is north, about ten miles; they are both in the same valley; Preble is on a little higher ground than Cortland.

Q. 4. During the time that you have lived in Preble, what positions of public trust, if any, have you held?

A. I have held the office of supervisor and justice of the peace as well as minor offices.

Q. 5. For how many years have you held these offices?

A. I think about sixteen years, each one.

Q. 6. Were you at one time postmaster; and, if so, for how long?

1533 A. I was for about three years.

Q. 7. Which, if any, of these positions are you holding at the present time?

A. Supervisor and justice of the peace of the town of Preble.

Q. 8. State whether or not you have been during the last half century and whether or not you are now intimately acquainted with the people of the town of Preble and with their affairs?

A. Yes, sir; I have been and am now.

Q. 9. Do you know Moses T. Tallman; and, if so, how long and how well acquainted with him have you been and are you now?

A. I do know him. I have known him for over fifty years, and during that time have a quite intimate acquaintance with him.

Q. 10. Did you know his brother, William Tallman; if so, how long and how well; is he living or dead; if dead, when did he die?

A. I knew William Tallman. I have known him intimately for over fifty years; he is dead; he died, I should think, about two years ago.

Q. 11. Where did he reside during the fifty years in which you say you were intimately acquainted with him?

A. In Tully, and for the last ten years of his life in Preble.

1534 Examination of MATTHIAS VANHOESEN resumed:

Q. 12. During the ten years which you say William E. Tallman resided in Preble how far was his residence from yours and what was his occupation?

A. About two miles by the road; his occupation was farming and mill owner.

Q. 13. What was the occupation of Moses T. Tallman?

A. Farmer.

Q. 14. Were the farms of Moses T. Tallman and William E. Tallman in the near vicinity of each other?

A. There was a road between them only.

Q. 15. Were these two brothers, Moses T. and William E., the only Tallman family that then lived in the town of Preble?

A. Yes, sir: at that time.

Q. 16. Did William Tallman have any children?

A. No, sir.

Q. 17. Did it come to your knowledge at one time that Wil-
1535 liam Tallman, while living in Preble, erected there upon his
farm and continued for some time a windmill for pumping
water from a well to supply his farm stock?

A. Yes.

Q. 18. In what year, according to your recollection?

A. I should think in 1861 or 1862.

Q. 19. How long was it continued in use?

A. To the best of my recollection, about two years; it might not have been so long and it might have been longer.

Q. 20. Where was this well located?

A. Between 50 and 60 rods east of the road leading from Preble to Homer and about 80 rods north of the road running east and west, which turns east at the residence of D. C. Callan; this east and west road is on the line of lots.

Q. 21. Is this windmill and the well in use now?

A. The windmill is not and the well is not, unless it has been within a few weeks past.

Q. 22. In what condition has it been for the past few years?

A. It has been filled up with cobble-stone until very lately; it was cleaned out about three or four weeks ago.

Q. 23. While the windmill at this well was in use did you ever go to the well; and, if so, when and under what circumstances?

A. I think soon after it was erected, at the suggestion of William E. Tallman, I went to the well to see the operation of the windmill.

Q. 24. Have you during your life been somewhat intimately acquainted with the people and affairs of Cortland village, the county seat of Cortland county? If so, state what business or official duty has brought you into such acquaintance.

A. Well, I have been to quite a degree acquainted by tending
court, being collector, etc.; since 1861 I have had a more intimate
acquaintance; I have been frequently called here on business and
frequently, from 1861 to 1865, was called here in the performance
of my duty as a member of the war committee appointed by the
board of supervisors; for several weeks each year during the
1536 sixteen years in which I was supervisor I have been in Cort-
land attending the sessions of the board of supervisors. A
portion of the time I was chairman of the board of supervisors and
have become considerably well acquainted with most of the business
men of Cortland.

Q. 25. State whether or not in the performance of your duties as supervisor and member of the war committee you came to have an intimate knowledge with the raising, organizing, and drilling of the 76th regiment while quartered upon the fair grounds, near Cortland village.

A. I don't recollect that the committee had much to do about it, but I had knowledge of it outside of my duties as committeeman.

Q. 26. Did you know Nelson W. Green, the colonel of the regiment, at that time?

A. Yes, somewhat; not intimately.

Q. 27. State whether or not you remember that in the fall of 1861 some experiments were said to have been made here by Colonel Green and his officers which resulted in the new method of well making, here since known as the driven well.

A. Yes; I heard of it. I can't tell just when.

Q. 28. State briefly what that method of making wells is.

A. Well, it's done by inserting a pipe into the earth until it reaches water, and then attaching a pump thereto.

Q. 29. Have you any personal knowledge of the use of such a well? If so, state what.

A. I have one of my own that is in daily use, and I know of several others. Mine was put down about six years ago. It yields an abundant supply of pure water.

Q. 30. Prior to the fall of 1861 have you any knowledge or information that any such process of well making was ever known in Preble, Cortland, or in any other place?

A. No, sir.

Q. 31. You have testified that William E. Tallman, in about the year 1861 or 1862, erected a windmill for pumping water from a well, and that at his suggestion you visited the well to see the windmill operated. Please state whether or not William E. Tallman then or at any time ever claimed or stated that the well 1537 in which the windmill operated was constructed by the process of the driven well or by any other process than that used for making ordinary dug and stoned wells?

A. No.

Q. 32. What was the point of curiosity to which he invited your attention—the structure of the well or the structure and operation of the windmill?

A. The windmill. I did not know then but that it was an ordinary dug well. Nothing else was claimed for it.

Q. 33. Did you ever know of any driven wells being put down in Preble or in Cortland county or in any other place prior to the fall of 1861?

A. No, sir.

Q. 34. Since that time have a large number been put down in Preble?

A. Quite a number.

Q. 35. At what time, according to your knowledge and recollection, did driven wells come to be known and go into use in the town of Preble? State the year as nearly as you are able.

A. To the best of my judgment, I don't think there were any driven there until 1866 or 1867.

Q. 36. State whether or not since that time the number in use have been increasing.

A. Yes; they have increased some.

Q. 37. Who first began to put them down as a business?

A. Mr. Dunham, of Homer, a town adjoining Cortland on the north and Preble on the south, is the first that I know anything about it.

Q. 38. When Mr. Dunham first began putting down these wells state whether or not the method spoken of was regarded in that community as a new discovery as a process of well making.

A. Yes.

Q. 39. Have you recently visited this well at which the windmill spoken of by you was erected on the lands of William E. Tallman?

A. Yes.

1538 Q. 40. When and with whom?

A. Well, perhaps four or five weeks ago, with Mr. Parsons the first time.

Q. 41. State what was being done and what you saw at the well when you visited it.

A. There were a couple of men working there cleaning out the stone and dirt with which it had been filled. They were down in the well, or, rather, one was down in the well and the other was hauling up what he put into the pail or bucket which they were using. I then saw in the bottom of the well, sticking up about six feet above where they had cleaned, a kind of ladder, a straight board bar with boards nailed across for steps. The steps were in sight. This ladder was not taken out that day.

Q. 42. State whether or not you again, afterwards, visited this well. If so, when was it and what did you again see?

A. A few days after this and about three or four weeks ago I went there in company with Seth Aldrich and Hiram Wicks, and we cleaned out some more dirt and stones—cleaned it down to water, but not as far as the bottom of the ladder, which we left still imbedded in the stones and dirt. I went there again, perhaps about three weeks ago, with Mr. Parsons, one of the complainants. We then found two men there taking out more stones and dirt. Then we drew up a ladder.

Q. 43. I show you here a board with strips nailed across it. Please examine it and see if this is the ladder which you found in the well; and, if so, how you are able to identify it.

(Witness examines the ladder, as requested by complainants' counsel.)

A. That is the ladder, and I identify it by the initials of my name, "M. V. H.," which I cut on it with a knife at the end at the time it was taken from the well. I also recognize it from its general appearance.

Q. 44. Please state which end was down when the ladder was in the well.

1539 A. The one longest from the cross-bars was down; the other end, on which my initials were cut, was up.

Q. 45. Please to briefly describe this well.

A. Well, to get the depth of the well at this time I measured from the top of the well to the top of the ladder and then measured the length of the ladder. The whole depth, measured in this way, was fourteen feet and two inches, I believe. The well was stoned up all the way down. From the bottom of the ladder to the top of the water was fourteen inches.

Q. 46. In what month was this measurement made and what was the condition of subterranean streams and springs as to being high or low?

A. It was in the month of August, and water there in that vicinity was very low in the wells and springs.

Q. 47. At the time the ladder was taken out was the well cleaned clear to the bottom of the ladder or was the ladder pulled out, leaving still some dirt and stones in the well still surrounding the foot of the ladder?

A. The ladder was pulled out, but there was some of the filling still in the well.

Q. 48. Did you afterwards go there again; if so, when, what change had been made, if any, in the well during your absence, and what occurred at that visit to the well?

A. Yes; I was there again, I guess about the 28th of August; the latter part of August, any way. The well had been cleaned to the bottom of the stone walls at the original bottom of the well. The water had been pumped nearly out. They pumped some after I got there, so that I could examine to the bottom of the well. The wall extended to the original bottom of the well.

Q. 49. From your knowledge of the wells and subterranean springs in the vicinity of this well what, in your opinion, would be the depth of water in this well at the seasons of the year when water is at its ordinary depth in wells?

A. In the spring the well would be most full; in August, September, and October there would not be much water unless rains came very early; it would be from 12 inches to 15 inches deep; 1540–1541 there was a lake near by and when it was 12 inches or 15 inches deep it would be at about the level of the lake and would not go much lower.

Q. 50. Do you know how long this windmill which you have mentioned remained at this well? State what you know in regard to its history.

A. I don't know how long it did stand there; it stood there a good many years until it rotted down; I saw some of the remains there at the well when I visited it in August last, as I have stated.

Q. 51. Besides the ladder did you see any other implements or articles which were taken from this well at the time it was cleaned out? If so, describe them.

A. I saw some timbers and scantling lay there which they said had been taken out; I didn't see them taken out; I saw other things there, but my attention was not particularly called to them so I could describe them.

(S'g'd) MATTHIAS VAN HOESEN.

Subscribed and sworn to before me this 13th day of September, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

1542 SEPTEMBER 15th, 1880—2 o'clock p. m.

Complainants appear by George L. Waters, Esq; defendants *do* not appear.

SETH ALDRICH, being duly sworn for complainants, testified as follows:

Q. 1. Please state your name, age, place of residence, and occupation.

A. My name is Seth Aldrich; my age is 74 years last March; my place of residence is Preble, Cortland Co., New York; my occupation is that of a farmer.

Q. 2. For how many years have you resided in Preble?

A. 67 or 68 years.

Q. 3. During the time that you lived in Preble have you occupied any positions of public trust?

A. Well, yes; I have been supervisor and have held other town offices.

Q. 4. Have you now, and, if so, how long have you had, a general acquaintance with the inhabitants and history of the town of Preble?

A. I have and have had for above 60 years.

Q. 5. Were you acquainted with William E. Tallman, of Preble, in his lifetime; and, if so, for how many years did you have an acquaintance with him?

A. I did know him and knew him for the last forty or fifty years of his life, I should think.

Q. 7. How intimately were you acquainted with him?

A. I used to meet him in business matters and knew him as well as any man in town.

Q. 8. Do you know his brother, Moses T. Tallman; and, if so, how many years have you known him?

A. I do know him and have for the last thirty-six years.

Q. 9. Where did Moses T. and William E. Tallman live in the town of Preble in reference to each other and where with reference to your residence?

A. Their farms lay side by side, parted only by the highway; I lived at Preble Corners, about a mile and a half from their farms.

1543 Q. 10. Do you remember the fact that William E. Tallman, while living in Preble, put up and had in use for some time a windmill for pumping water for his stock?

A. Yes; I do.

Q. 11. Describe the location of the well where the windmill was and how far was it from your house.

A. The windmill was situated east of the north and south road and north of the east and west road and about 60 or 80 rods from each road and about 90 rods or so from the residence of De Witt C. Callan; this well was about one mile from my house.

Q. 12. State, as nearly as you can, the time when this windmill was erected at this well.

A. I think it was a little before the war.

Q. 13. Do you mean the war of the rebellion?

A. Yes.

Q. 14. Is the windmill in use now; if not, how long since it has been discontinued?

A. It is not in use and has not been for a good many years.

Q. 15. Do you know the process of making the so-called driven wells now in use in Preble and the surrounding country?

A. I think I do.

Q. 16. Please to briefly describe that process.

A. Well, it is done by driving a rod, in the first place, till they get to the depth they want to go, and then they draw the rod and put in a pipe and attach a pump.

Q. 17. When were these driven wells first put down in Preble, according to your recollection?

A. About fifteen or sixteen years ago, as near as I can remember.

Q. 18. Who by?

A. Mr. Dunham was the first I knew of putting any down.

Q. 19. When Mr. Dunham first began to put down these wells was it considered as a new method of well making or otherwise?

A. Well, it was considered so at that time; frequently a half a dozen would go together to see one driven down.

1544 Q. 20. State whether or not the putting down of wells in this way occasioned considerable discussion among the people of Preble; and, if so, so far as you know, was it regarded as a new discovery of well making?

A. It did cause considerable excitement; I considered it a new discovery; they used to turn out to see them operate; the people considered it a new discovery, so far as I know.

Q. 21. State whether or not during the time this windmill was in operation at the well of William E. Tallman you visited that well.

A. I've been there by it when it was in operation on several occasions.

Q. 22. What kind of a well was this?

A. I didn't discover anything more than an ordinary dug and stoned well, stoned with cobbles principally, such as one would pick up on the ground.

Q. 23. State whether or not you was down in this well at one time.

A. I was.

Q. 24. Did you then find, from personal examination, that it was an ordinary dug and stoned well?

A. I didn't discover anything to the contrary.

Q. 25. State whether or not you ever heard any one state or claim that this well was anything more than an ordinary dug and stoned well until after the bringing of the suits for infringement of the Green patent.

A. I never did.

Q. 26. When was it that you visited this windmill and well, as you have stated?

A. Well, at different times, when I would be across there hunting.

Q. 27. State whether or not there was water in the well when you went down into it; and, if so, how deep was it?

A. There was water, and somewhere from 10 to 12 inches deep, I should say.

Q. 28. What was the diameter of the well inside of the stoning?

A. Well, my opinion would be—well, it was larger at the top than at the bottom; my opinion would be that it was 2½ feet at the top and say about 18 or 20 inches at the bottom.

1545 Q. 29. At the time you went down into the well and found the water 10 or 12 inches deep, as you have testified, what was the condition of the streams in that vicinity—high or low?

A. I should call it rather low.

Q. 30. Have you also recently visited this well; if so, when?

A. Yes; I should say some three or four weeks ago.

Q. 31. Was it the same well where the windmill was?

A. I should say it was.

Q. 32. State whether or not this windmill which was there erected was the first one erected in your valley.

A. I couldn't say which was erected first, that or the one on the railway there; those two were the first I ever heard of being erected in our valley.

Q. 33. State whether you ever heard William E. Tallman or Moses T. Tallman or any one else, from the time this windmill went into operation until it was discontinued, claim or state that this well or any part of it was constructed by the process adopted in the construction of driven wells, or that water was there obtained from any other than an ordinary dug and stoned well.

A. I never did.

Q. 34. Did you ever hear it mentioned or claimed by Moses Tallman or any one else, until after the use of the windmill was discontinued, that there was anything new in the construction of the well from which the windmill was operated differing in any respect from the ordinary dug and stoned wells?

A. I don't know that I ever did.

(S'g'd) SETH ALDRICH.

Subscribed and sworn to before me this 15th day of September, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

Case adjourned to September 16th, 1880, at 9 o'clock a. m., at same place.

1546 SEPTEMBER 16TH, 1880—9 o'clock a. m.

Case called.

Complainants appear by D. L. Hurlburt, Esq.; defendants *do* not appear.

GERRIT S. VANHOESEN, being duly sworn for complainants, testified as follows:

Q. 1. Please state your name, age, place of residence, and occupation.

A. My name is Gerret S. Vanhoesen; my age, 46 years; my residence is Cortland, Cortland Co., New York; my occupation is that of sheriff of Cortland Co.

Q. 2. Have you held other offices of trust?

A. I was justice of the peace of the town of Preble and deputy sheriff and other minor offices.

Q. 3. Please state how long you have resided in the town of Preble, Cortland county.

A. Well, in all about 40 years. I resided there from the time I was born until the spring of 1855; then went West and stayed nearly three years; then came back and went into the army, in the fall of 1862; was captain of a company in the 157th regiment, and returned to Preble, in 1865, and resided there until January last.

Q. 4. Where did you reside in Preble, with reference to the residence of Moses T. and William E. Tallman?

A. I resided about a mile north and a trifle west, from 1858 to 1873; then have lived in Preble village ever since.

Q. 5. Were you well acquainted with Moses T. and Wm. E. Tallman during that time?

A. Yes, sir; I have had a good deal of deal- with them, and have been to what is known as the Tallman mill to have milling done.

Q. 6. Do you know what is known as the driven well, which is in common use in this county, and how they are constructed?

A. Yes, sir.

Q. 7. When did you first hear of that process of procuring water?

A. In 1861.

1547 Q. 8. Where was it and under what circumstances?

A. On the Cortland county fair grounds. I was there at the time. I remember of being on the fair grounds with several others, and they spoke of the new well and process of getting water and spoke of going over to see it; but I did not go over to see it. It was while the regiment was encamped there, and I was talking to Captain Barnard at the time.

Q. 9. Who did you understand was the inventor of that well, from public notoriety or otherwise?

A. I afterwards understood it was Colonel Green.

Q. 10. When were driven wells, as you have stated, first put down in the town of Preble, that you know of?

A. The first one that I know of was Ami Hoag's, which was put down in his kitchen in 1865, when I came home. I don't know at what time it had been put down; Mr. Dunham, of Homer, put it down.

Q. 11. Was Mr. Dunham, of Homer, in the business of putting down wells in your town at that time and afterward—putting down driven wells?

A. Yes, sir.

Q. 12. How were those driven wells regarded by your townspeople in Preble—whether they regarded it as new, novel, and useful, and whether people went to see them, and there was more or less talk in regard to them at that time?

A. Yes; they were regarded as something new, I think, and were talked of more or less, and were regarded, and are yet, as useful.

Q. 13. Did you know of William E. Tallman erecting a windmill upon his farm, on that portion now occupied by Thomas Ballard, about the year 1859, for the purpose of obtaining water for his stock?

A. I don't know whether Ballard occupies that portion of the farm or not; I know he lives near by, and works portions of the William E. Tallman farm. I know the windmill was near the southwest corner of the William E. Tallman farm; I mean that portion of the farm that was owned by William E. Tallman in 1859.

Q. 14. State about where that windmill was located, and whether it is the first windmill that you knew of in that town.

1548 A. It was the first windmill, and was about or a little over a mile south from Preble village and north of the cross-road (east and west road) that crosses to Tallman's mills. It was about an equal distance, I should say, from each of those roads, and starting from the corner of those two roads, about fifty or sixty rods.

Q. 15. What kind of a well did you understand that windmill operated in obtaining water?

A. An ordinary dug well.

Q. 16. Did you ever hear or know that William E. Tallman had invented a new process of obtaining water like a driven well, that was used in that dug well, until within the last year and a half?

A. I can't say how long it has been, but I never heard of it until after this litigation commenced; I should say it was about two years, but I wouldn't be positive.

Q. 17. In any of your conversations which you have had with Moses or William E. Tallman have either of them ever stated to you that William E. Tallman had originated a new process for obtaining water, such as a driven well or otherwise?

A. No, sir.

Q. 18. About how long has it been since that windmill has been taken away or blown down from that well, where it was erected?

A. I cannot tell; it's been a number of years, but I can't tell when.

Q. 19. What did you know, at the time that dug well was made where the windmill was, about its being an ordinary dug well? Please state fully.

A. Well, I heard Jefferson Getman and others talking about it; that it had gone dry, and must be dug deeper, and about its being quite a chore to do it on account of its being stoned up.

(S'g'd) G. S. VAN HOESEN.

Subscribed and sworn to before me this 16th day of September, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

1549 JOHN VANDENBURGH, being duly sworn for complainants, testified as follows:

Q. 20. Please state your name, age, place of residence, and occupation.

A. My name is John Vandenburgh; my age is 66 years; my place of residence is Preble, Cortland county, New York; my occupation is farming.

Q. 21. How long have you resided in Preble, Mr. Vandenburgh?

A. All my lifetime, except one year I was in the West.

Q. 22. Did you know William E. Tallman in his lifetime, and also Moses Tallman, during the time that they resided in Preble?

A. Yes.

Q. 23. Have you been pretty well acquainted with them and done business with them since 1859?

A. Yes; I was pretty well acquainted with them. I don't recollect of doing much business with them, except going to their mill.

Q. 24. Where did you reside, in reference to Moses and William E. Tallman, in 1859 and since?

A. Some parts of the time I lived about three miles north of Preble Corners; other parts of the time within two miles of Preble Corners, and now I am living near Preble Corners.

Q. 25. Do you know of the driven well that's now in common use in this county and how it's constructed?

A. Yes; I have seen a number of them, and helped put down one—helped the man that was putting it down.

Q. 26. When did you first see that process used in your town and see a driven well there for obtaining water?

A. I think the first well that I see of that kind I see at the
1550 Preble depot. It was along in 1864 or 1865; I can't tell exactly; say in 1864, 1865, or 1866. I didn't charge my mind with it and couldn't tell exactly.

Q. 27. Were driven wells put down in your town since that time to considerable extent?

A. Yes.

Q. 28. Did you learn who was putting down the first driven wells there in your town?

A. Yes; Mr. Dunham, of Homer. I never knew of any one else putting any down.

Q. 29. How were those first driven wells that you have stated regarded there in Preble among your townsmen as to their being new and novel; whether the people examined them and discussed its merits as a new and useful invention?

A. Well, I think it was regarded as an improvement in the line of getting water. It was new—a new thing at that time.

Q. 30. The only two methods for getting water in your town at the present time is the ordinary dug and stoned well and the driven well, are they not?

A. Yes; that's all that I know of.

Q. 31. Prior to the making of the driven well at the depot you have referred to what was the method of obtaining water?

A. Well, we had to dig our wells, if we had any, and stone them prior to that time.

Q. 32. When did you first hear of this process of obtaining water by a driven well?

A. Well, I think the one at the depot was the first one that I ever knew anything about.

Q. 33. Did you know of William E. Tallman erecting a windmill on his farm about the year 1859 for the purpose of obtaining water for his stock, on that portion of the farm now occupied by Thomas Ballard?

A. Yes.

Q. 34. Was you at that well about the time that the windmill was erected?

A. I passed by there on returning from camp-meeting, across lots (I had seen it from the road before), and looked at the arrangements of the windmill.

Q. 35. What kind of a well was the water pumped from by the windmill?

1551 A. A dug and stoned-up well, I think.

Q. 36. Was that the first windmill that you remember of in your town?

A. The first that I remember of myself, and it was regarded, I think, as a novelty.

Q. 37. Did you ever hear or know of William E. Tallman's ever having, or claiming to have, invented a new process for obtaining water, such as a driven well, or whether any such new process was used in the bottom of that dug and stoned well where the windmill was?

A. I never knew or heard anything about it until very lately.

Q. 38. In any of your conversations with William E. or Moses T. Tallman did they ever state to you anything about a new process of obtaining water or that they or either of them had originated any such process, such as a driven well, or otherwise?

A. I never had any conversation with either of them in regard to that matter.

Q. 39. Has it been unusually dry in your town during the months of June, July, and the greater part of August of this season?

A. Yes.

(S'g'd) JOHN VANDENBURGH.

Subscribed and sworn to before me this 16th day of September, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

Adjournment taken to September 16th, 1880, at 1.15 p.m., at same place.

1552 SEPTEMBER 16TH, 1880—1.15 p. m.

Complainants appear by D. L. Hurlbut, Esq., for plaintiffs; defendants *do* not appear.

ALBERT H. VANHOESEN, being duly sworn for complainants, testified as follows:

Q. 1. Please state your name, age, place of residence, and occupation.

A. My name is Albert H. Vanhoesen; my age is 46 years; my occupation is farming; my residence is Preble, Cortland county, New York.

Q. 2. How long have you resided in the town of Preble?

A. Always; I was born there.

Q. 3. Where have you resided in reference to the residence of Moses and William E. Tallman when they resided in Preble?

A. I lived on the farm where I now reside, which adjoins the William E. Tallman farm.

Q. 3. Were you well acquainted with William E. Tallman in his lifetime, and with Moses Tallman?

A. Yes sir; when they lived there.

Q. 5. Were you in the habit of calling at their residence in 1859, and for some years thereafter?

A. Yes; I used to call sometimes; I used to see them every day or two, or two or three days, when I was in the habit of going to mill.

Q. 6. Do you know what is known in this county as the driven well, and how constructed?

A. Yes, sir; I have heard of the wells and seen them.

Q. 7. When did you first know of a well being put down by that process in your town?

A. Well, I should say fourteen or fifteen or sixteen years ago; it might be less or might be more.

Q. 8. Who first put down those driven wells in your town?

A. Mr. Dunham, of Homer.

Q. 9. Please name the first driven wells that you remember of being put down there.

1553 A. I should say the one at the depot was the first one I knew of at Preble; there was one put down in Moses Tallmans' barn about the same time; I can't tell now which was put down first.

Q. 10. How were those first driven wells that were put down there fourteen or fifteen years ago regarded, whether as a new and novel process for getting water, and useful, and whether there was more or less talk and discussion by the people there at that time?

A. Yes; there was more or less talk about it, of course; they were regarded as a new thing.

Q 11. When did you first hear about the invention and patent on the driven well, and what?

A. I don't know as I can tell just the year; may be fourteen or fifteen or sixteen years ago; may be more and may be less; I heard the most about Green and Suggett were having a litigation about it.

Q 12. Did you know of William E. Tallman erecting a windmill for the purpose of getting water on his farm, about 1859, on that portion now occupied by Thomas Ballard? .

A. Yes, sir.

Q. 13. Please state about the location of that windmill.

A. Well, the way Tallman owned the farm it was on the west part of his farm; but as Ballard occupies the farm it is south and east of Ballard's house and about east of the barn—70 or 80 rods east of the barn.

Q 14. Were you at this windmill about the time it was erected by William E. Tallman?

A. Yes, sir, or soon after; two or three different times.

Q. 15. Please state what kind of a well this windmill pumped water from.

A. I called it a dug and stoned well.

Q 16. Did you notice to see whether there was water in the well at those times; and, if so, how was it?

A. I looked in the well and saw there was water there; I couldn't tell how deep it was.

Q. 17. That windmill was regarded somewhat as a curiosity, was it not, and was the first one in your valley?

1554 A. It was the first one I heard of there. It was regarded as a kind of curiosity by us then, as something we had never seen before, and we went there for the purpose of seeing it.

Q. 18. Have you been to that well recently?

A. Yes, sir.

Q. 19. Please state in what condition it was.

A. Well, when I was there it was dug out or cleaned out.

Q. 20. What was its appearance—of being recently cleaned out or not?

A. Well, I thought it had been recently cleaned out.

Q. 21. Please state the measurements, if you took any.

A. We measured it; it was 14 feet and 2 inches, I think, deep. I don't know as we measured the diameter.

Q. 22. What was the depth of water in it?

A. Fourteen inches.

Q. 23. Did you go down in the well; and, if so, what examination did you make?

A. Well, I went down in the well to see how deep the water was, and to see if I could feel the bottom of the wall, and the water was so deep I couldn't tell whether I could feel it or not. I thought I could on one side.

Q. 24. How long was that windmill there in operation?

A. I couldn't say. I should say not over a year or two, though I should say that pieces of it stood there until it rotted down or fell down.

Q. 25. Did you ever hear of William E. or Moses Tallman ever having originated or invented a new process of obtaining water by driven well or otherwise till within about the last two years?

A. No, sir.

Q. —. Did you, in any conversation with William E. or Moses Tallman, ever hear them say anything to that effect until about the last two years?

A. No, sir.

Q. 27. Did you ever see, know, or hear that a pipe was driven into the bottom of that dug and stoned well where the windmill was until within about the last two years?

1555 A. I never have, until since these suits have been commenced, heard anything about a driven well being there—that is, a year or two or three; I can't tell exactly. I never saw a pipe driven in that well.

Q. 28. Has it been a very dry summer in Preble this year?

A. Yes, sir.

(S'g'd) ALBERT H. VAN HOESEN.

Subscribed and sworn to before me this 16th day of September.

(S'g'd) FREDERICK HATCH,
Notary Public.

1556 AMASA G. ALDRICH, being duly sworn for complainants, testified as follows:

Q. 1. Please state your name, age, residence, and occupation.

A. My name is Amasa G. Aldrich; my age is seventy years next February; my residence is Preble, Cortland county, New York; my occupation is farming.

Q. 2. How long have you resided in Preble?

A. Well, thirty years the last time; I formerly resided in Scott, and before that in Preble.

Q. 3. Did you know William E. Tallman in his lifetime, and Moses Tallman during the time they resided in Preble?

A. Yes, sir; I did.

Q. 4. How far was your residence from theirs?

A. Well, it's two miles.

Q. 5. Were you well acquainted with William E. Tallman and Moses Tallman during the time they resided in Preble? Did you have business relations with them?

A. I did, sir, and was well acquainted with them; my acquaintance commenced when they first came into town there.

Q. 6. In what direction did you live from Tallmans'?

A. Northwest.

Q. 7. Do you know of a process of obtaining water now commonly in use called the driven well, and how they are constructed?

A. I do.

Q. 8. When did you first hear of and see a driven well in your town?

A. The one at the depot was the first I saw; that is the first one that I heard of in the town.

Q. 9. Were other driven wells put down in your town just subsequently to that one at the depot?

A. There was.

Q. 10. Please state who put down those first driven wells in your town?

A. I never heard of any one, only Mr. Dunham, of Homer; I helped him put down one or two.

Q. 11. Describe how they were made or constructed.

1557 A. Well, sir, there was a rod drove down, and that taken out, and a pipe put in with holes in it at the lower end, with a point on it—a gas pipe—driven down until it reached water, a cast-iron pump screwed onto the gas pipe at the top.

Q. 12. How was that process of obtaining water regarded at the time these driven wells were first put down in Preble by your townsmen?

A. Well, it was considered a nice thing, new, and an easy way of obtaining water to what the dug well was; there was a great deal of talk about it, and people went to see it. I went to the depot to see it myself.

Q. 13. How are they regarded as to purity and cleanliness of water produced?

A. They are regarded as the best way on account of cleanliness and water being clean.

Q. 14. What was the process of getting water in your town prior to the making of the driven well?

A. Well, they had to dig their wells and stone them up. I have dug them myself and stoned them up.

Q. 15. When was that driven well made at the depot?

A. I should think about 1865 or 1866; I can't tell exactly.

Q. 16. When did you first hear of this new process of getting water by a driven well, and where?

A. I can't be positive. The first I ever heard of it was at the fair ground; I can't tell the date, but it was when the soldiers were there on the fair ground in Cortland at the beginning of the war.

Q. 17. Who did you understand was the inventor of that process at that time?

A. Col. Green.

Q. 18. Did you know of a windmill being erected by William E. Tallman on his farm; and, if so, about when was it?

A. I heard that one was erected there; I saw it from the road, but never was to it; I can't tell how many years ago it was, but the first that I saw it was when they had a camp-meeting on Tallman's ground.

Q. 19. Please give the location of that windmill?

A. I should think it was from fifty to sixty rods east from Thomas Ballard's barn, and about thirty or forty rods north of the east and west road.

1558-1568 Q. 20. What was that windmill used for, as you understood at the time?

A. For pumping water for his cattle from a well.

Q. 21. What kind of a well did you understand that was from public notoriety?

A. A dug and stoned well.

Q. 22. Did you ever hear, learn, or know of any new process of obtaining water, such as a driven well or otherwise, being used at that windmill or in the dug and stoned well there?

A. No, sir; I did not.

Q. 23. In any conversations that you had with Moses or William Tallman did either of them ever claim or state to you that they or either of them had originated or invented any process for obtaining water, a driven well or otherwise, or that any such process was used in connection with that windmill or dug well there?

A. No, sir.

Q. 24. Has it been very dry in your town this present summer?

A. Yes, sir.

Q. 25. Please state how far you lived from the well where this windmill was.

A. It was about a mile, I should think.

Q. 26. Is that the first windmill that you know of in your town or not?

A. It is the first.

(S'g'd) A. G. ALDRICH.

Subscribed and sworn to before me this 16th day of September, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

Adjournment taken to September 17th, 1880, at 9 o'clock a. m., at same place.

SEPTEMBER 17TH, 1880—9 o'clock a. m.

Complainants appear by Noah J. Parsons, one of the complainants; defendants *do* not appear.

Case adjourned to September 18th, 1880, at 9 o'clock a. m., at same place.

SEPTEMBER 18TH, 1880—9 o'clock a. m.

Examination under the annexed notice here closed.

1569 SEPTEMBER 15, 1880—8 o'clock.

Case duly called at the law office of William D. Tuttle, in Cortland village, N. Y.

Hon. Milo Goodrich appeared for complainants and Col. Jed. Lake and I. H. Palmer appear as counsel for the defendant.

NICHOLAS H. HAYNES, being called and duly sworn for the complainants, testifies as follows, viz:

Q. 1. State your name, age, residence, and occupation.

A. Nicholas H. Haynes; age, 57 years; Cortland village, N. Y.; dealer in farm implements.

Q. 2. How long have you resided in Cortland county, N. Y.?

A. All my life, except three years prior to 1846.

Q. 3. State whether you have been the sheriff of the county; and, if so, for how many years and what years.

A. Six years; from 1864 three years, and from 1873 for three years more.

Q. 4. Have you also been deputy and under sheriff; and, if so, for how many other years? State generally.

A. Nine or twelve years, I think, I was deputy and three years under sheriff; nine years, I think, I was deputy.

Q. 5. Did you know of the organization of the 76th regiment of volunteers, quartered here in Cortland in the fall of the year 1861?

A. I did; my father was in that regiment.

Q. 6. In what part of this county did you then reside, and how far distant from Cortland village?

A. I resided in the town of Cincinnatus, in Cortland county, 16 miles southeast of this village.

Q. 7. In the fall of 1861 or previously did you become acquainted with the colonel of that regiment, Nelson W. Green?

A. A very little acquainted with him.

Q. 8. Did you know to what extent he applied himself to the organizing of that regiment in the season of 1861?

A. Not personally; only by hearsay.

1570 Q. 9. When did you move into Cortland village?

A. In January, 1864, at the time of my election of sheriff of this county. I then moved into the court-house. I was elected the fall previous to January, 1864.

Q. 10. Was you the sheriff at the time of Col. Green's trial here in Cortland on his indictment for the shooting of McNett on the regiment camp ground here in Cortland?

A. I was.

Q. 11. State whether you, as sheriff, had the personal charge of him during that trial, and how long the trial continued, and to what extent it excited attendance on the part of the public.

A. I had the personal charge of him; my best recollection is the trial continued four or five days; I will not be positive; my recollection is it continued from one week into another, as I accompanied him to his home on the Sabbath evening and took him back again, he being in my custody, as sheriff; the excitement was strong against him, but not as much so as it was a year or two previous; the court-house was as full as it could conveniently be.

Q. 12. Now, Mr. Haynes, you say you became acquainted partially with Col. Green in the fall of 1861; state when you next began to see him and converse with him—that is, about the time, as near as you are able.

A. About the time of his trial came on. I had seen him before, but not to converse with him to much extent.

Q. 13. Now, state how he appeared and what you observed in his appearance and the character of his conversations from the time you began to see him, shortly previous to his trial and during that trial.

A. Well, his conversations mostly were about his trial; he seemed to want to talk about that the most of the time; he seemed to think that there was a certain party here that wanted to prosecute him

out of political spite, or something of that kind. I recollect of his
saying he had a right to do just what he did do, as much as
1571 McNett did not obey his command; he seemed to appear as
though he had no friends, and acted when I went out with
him as though he wanted to keep out of sight of people; when I
went with him to his house he would want to go after dusk.

Q. 14. While you lived in Cincinnatus and before you moved to Cortland, in 1864, as you state, were you more or less frequently in Cortland village?

A. I was, perhaps, once in two weeks, on an average; sometimes oftener and sometimes not as often as that.

Q. 15. During the period from the fall of 1861 to 1864 was you in any public business? And, if so, state what, and if that led you to be in Cortland village.

A. I was constable and deputy revenue collector a portion of that time; this led me to be in Cortland village more than I should have been otherwise.

Q. 16. At that period how much were you acquainted throughout the county of Cortland?

A. I was quite well acquainted throughout the county, and more particularly throughout the south and east part of the county, and considerably throughout the whole of the county.

Q. 17. What can you say, if anything, as to the public excitement created, in respect of Col. Green, arising from the McNett shooting affair? Please describe briefly the extent and character of that excitement as you observed it throughout the county.

A. The public excitement was very strong against Col. Green for the shooting of McNett, as I observed it; at least that is the way I understood it.

Q. 18. Do you know whether Col. Green was apprehensive as to his personal safety, arising out of this public excitement? And, if so, state what knowledge you have on the subject.

A. I do not know.

1572 Q. 19. What do you know of Col. Green being burned in
effigy here in Cortland and about his barns being burned?

A. It was the report that he was burned in effigy; as to the barn, I think it was burned after I came here and soon after his trial.

Direct examination here closed, and cross-examination by Irving H. Palmer, Esq., counsel for defendant:

X Q. 20. Col. Green was bailed by several citizens of Cortland village, and was never in jail on the charge of shooting McNett or confined under the indictment found against him therefor, was he?

A. Not that I know of; I do not remember that he was.

X Q. 21. He was under bail at the time of his trial, was he not?

A. I think he was.

X Q. 23. He was never surrendered by his bondsman, to your knowledge, was he?

A. I do not recollect that he was.

X Q. 24. How did it occur that Col. Green was delivered into your custody, as the sheriff of the county of Cortland, when his bail had not surrendered him and had not been adjudged to be insufficient or insecure?

A. I am not able to answer; I cannot think how he came into my possession.

X Q. 25. Whom did you see or hear speak or act in any manner that indicated any excitement or feeling against Col. Green for the shooting of McNett after that affair? Please give the particulars.

A. Calvin Hathaway and some men in his employ, and Julius Crittenton, and also Porter Crittenton; others that I cannot give the names now.

X Q. 26. Did you witness any exhibition of any personal animosity against Col. Green, or was the feeling you have mentioned merely that Col. Green had committed a great wrong in the shooting of McNett and that act was disapproved by the persons whom you heard discuss or mention it?

1573 A. I do not recollect of any personal animosity by any person, but there was a strong feeling against Col. Green for the act he had committed.

X Q. 27. How intimate was your acquaintance with Col. Green?

A. I was not intimate at all; until he came to stop with me I was not acquainted with him in particular.

X Q. 28. Was not the excitement consequent upon the shooting of McNett by Col. Green much greater at the time and soon after it occurred than it was at the time of his trial, and did not the excitement produced by that affair subside and abate very much during the period between Dec., 1861, and April, 1866?

A. I think it did; I think it subsided very much, but at the time of the trial it was considerably revived again.

X Q. 29. On your direct examination you stated, in substance, that Col. Green, while in your custody during his trial, appeared to shun public observation. Is not this characteristic of most persons charged with a criminal offense while in the custody of an officer or on trial therefor?

A. I hardly know how to answer that, as I can hardly call to mind a case when I was called to go out in public with others as I was with him.

X Q. 30. Col. Green was a very proud-spirited man, was he not?

A. My first seeing Col. Green I thought so, but as I became better acquainted with him I changed my opinion, and in the manner he dressed himself I thought he was rather slouchy.

X Q. 31. Did he appear to feel the disgrace for being placed upon trial as a criminal or otherwise?

A. I think he did; I think he seemed to feel that he had lost confidence in himself.

X Q. 32. Was not his aversion to being seen in public in the custody of an officer due to some extent to the feeling of disgrace on his part?

A. That I do not know of, as to how it was.

1574–1576 X Q. 33. Did you regard it as anything unusual on the part of Col. Green that he talked about his trial during its progress more than he did about other subjects?

A. I did; that he talked with other parties except his counsel. I regarded him as a weak-minded and excitable man.

Examination here closed.

(S'g'd) **N. H. HAYNES.**

Subscribed and sworn to before me this 15th day of September 1880.

[SEAL.] (S'g'd) **WILLIAM D. TUTTLE,**
Notary Public.

1577 OFFICE OF H. J. MESSINGER, NOTARY PUBLIC,
CORTLAND VILLAGE, NEW YORK,
MONDAY, *September* 13*th*, 1880—10 o'clock a. m.

Complainants appear by Noah J. Parsons, one of the complainants, and asked that the examination be held open; that the same was duly held open until 2 o'clock p. m., when complainants appeared by D. L. Hurlbut, Esq., of counsel, and Jed. Lake, Esq., appeared as counsel for defendant.

ORRIN PRATT, produced by complainants, being duly sworn, testifies as follows:

Q. 1. State your name, age, residence, and occupation.

A. Orrin Pratt; age, 64; Preble, Cortland county, State of New York; farmer.

Q. 2. How long have you resided in Preble?

A. About 26 years.

Q. 3. Did you know William E. Tallman in his lifetime when he resided in Preble, and when did you first become acquainted with him?

A. I did know him; I think I first knew him from 20 to 25 or 26 years ago.

Q. 4. And do you know Moses T. Tallman, of Preble; and, if so, how long have you known him?

A. I do know him; have known him about as long as I have known Wm. E. Tallman.

Q. 5. State their occupations and where they resided in Preble.

A. They were both farmers, and William E. Tallman owned a grist-mill and saw-mill. They resided about a mile and a half southeast of Preble village, near the stream. Moses lived on the south side of the road and William E. lived on the opposite side, just across the road from Moses.

Q. 6. How far did you live from the Tallmans residence in 1859 and down to the present time?

A. I then, in 1859, lived about two miles; now I live nearer the village and about half a mile nearer.

1578 Q. 7. State whether in 1859 down and for some years thereafter you had your milling done at Wm. E. Tallman's mill, and during that time whether you frequently saw the Tallmans and conversed with them and was well acquainted with them.

A. I had my milling mostly done there; saw them; was well acquainted with them, and conversed with them.

Q. 8. Did you know of William E. Tallman erecting a windmill for the purpose of operating a pump to obtain water?

A. I did.

Q. 9. About when was that erected?

A. To tell the year, I could not tell. I should think about 1864, '65, or '66, or somewhere along there, or perhaps as long ago as '61, but I think not as long ago as that.

Q. 10. Please state where that was located on Mr. Tallman's farm.

A. It was, I should think, about east of the barn or house that Ballard now occupies. Ballard don't live on the place now; he works the farm, but his tenant occupies the house; the farm belongs to Hiscock or he hires it of Hiscock; Wm. E. Tallman owned this land in 1859; I think this windmill was perhaps 30 rods or perhaps more east of the barn.

Q. 11. When did you first learn of what is well known in this community as a driven well?

A. Well, I think the first I heard of the driven well was about the time of the commencement of the war, and I think it was on the fair ground at Cortland, and about the time of the encampment there.

Q. 12. When was driven wells first put down in your town?

1579 A. It wasn't but a few years after that; I was trying to think of some circumstance to fix the time; I remember well the well; the first one was the well at the depot; I remember that well; I was there at the time when they were trying to get the water; the first well was somewhere from '65 to '67.

Q. 13. Who put down those driven wells—the first ones that were put down in Preble?

A. I could not say who put down the well at the depot, but Mr. Dunham, of Homer, put down the first one I knew of, and he may have put that down at the depot; I could not say but what he did.

Q. 14. Was Mr. Dunham engaged at that time in putting down driven wells in your town?

A. Yes.

Q. 15. Please state how the driven wells in your town was made, so far as you have observed.

A. They drove a round bar of iron with a sledge; then they put in a hollow pipe and attached a pump to the hollow pipe; I don't know how exactly; I suppose they fasten it on as they would any pump.

Q. 16. Did you ever know or hear of driven wells being made in your town prior to those made by Dunham?

A. Not unless the one at the depot was made by some other one; I don't know certain about that; I don't know certain who put that in.

Q. 17. Did you ever hear of such a thing as a driven well prior to the time the one was put down here in Cortland on the fair ground when the regiment was encamped there, at the commencement of the late war?

A. No.

1580 Q. 18. How were driven wells regarded when they were first put down in your town, in 1865 and 1867, as you say, as to their being new and novel, and whether people went to see them and discussed their merits, and whether there was considerable talk about them at that time?

A. Yes; they were considered new and talked about and considered novel and discussed as to their merits, of course. I knew there was a good many around the depot when I went to see that.

Q. 19. Did you ever hear or know that the windmill referred to operated a driven well?

A. No, sir.

Q. 20. What kind of a well did you understand that operated?

A. I supposed it to be a dug well, but I don't know as to that.

Q. 21. In any of your conversations with the Tallmans did they ever say to you that that wasn't a dug well?

A. I never had any conversations with them in regard to the well, as I know of.

Q. 22. In your conversations with the Tallmans did they ever say to you it was a driven well that was operated by this windmill, or anything to that effect?

A. They did not.

Q. 23. Was that the first windmill that was ever erected in your town, that you know of, for the purpose of pumping water?

1581 A. It was the first I ever saw—at any rate in that town.

Q. 24. Is that windmill now standing?

A. I should think not; not in sight.

Q. 25. How long since the windmill was standing there?

A. I could not tell just how long; perhaps 8 or 10 years; maybe not so long, but I haven't noticed it in perhaps 7 or 8 or 10 years, but it may not be quite as long.

Q. 26. Did Mr. Dunham attempt to put down a well for you between 1865 and 1867?

A. He did.

Q. 27. Did you ever hear that William E. Tallman claimed to be the inventor of driven wells?

A. No, sir; I never did.

Direct examination rests.

Cross-examination:

X Q. 1. What year did you move to Preble, N. Y.?

A. I can't tell the exact year; it was 26 or 27 years ago; that would be about 1853 or 1854.

X Q. 2. How long after you moved to Preble before you knew William E. Tallman?

A. Right along, soon after; perhaps the first year.

X Q. 3. Did he then run the grist-mill and saw-mill you speak of in your direct examination?

A. I suppose he did; they have been connected together—the farm and the mills—ever since I have known them.

X Q. 4. How long did you know the farm and mills before you moved to Preble?

A. Well, I don't know; perhaps ten or a dozen or fifteen years; they were owned by other parties or party.

X Q. 5. Where did you live when you first knew this farm and these mills?

A. Scott.

1582 X Q. 6. Which way and how far did you live from the mills?

A. I lived west and, I should think, about four miles.

X Q. 7· When you first moved to Preble which way did you live from the village and how far?

A. I lived a little north of west and about half a mile.

X Q. 8. Is there any stream runs through Preble; and, if so, what is its name?

A. Yes; there is; it is a branch of the Tioughnioga, I suppose.

X Q. 9. Are the mills you say Wm. E. Tallman owned situated on and run by that stream?

A. They are.

X Q. 10. In going from your place where you first lived, when you moved to Preble to the mills owned by Tallman, on which side of this stream did you travel?

A. West side generally.

X Q. 11. In going along that road how near did you go to that windmill you have spoken of?

A. Well, I should say from 25 to 30 rods and maybe more.

Adjourned to September 14th at 9 a. m.

SEPTEMBER 14, 1880—9.30 a. m.

Parties appeared pursuant to adjournment.
Present: As before.

Cross-examinaton of ORRIN PRATT resumed:

X Q. 12. In passing along this road was 25 or 30 rods the nearest point that you went to this windmill?

A. Going along the road was the nearest point to the windmill.

X Q. 13. During the time this windmill was in operation did you go to the well and examine it?

A. I did not.

X Q. 14. While the windmill was in operation did you go nearer to the mill than in passing along the road?

A. Not that I know of.

1583 X Q. 15. On which side of the road was this windmill?

A. It was east of the north and south road and north of the east and west road; you could see it from either road.

X Q. 16. Was this east and west road the one that ran by William E. Tallman's house?

A. It was; yes, sir.

X Q. 17. How far was this windmill north of the east and west road?

A. Well, I should say from twenty-five to fifty rods; I shouldn't think there was much difference from that road or the other.

X Q. 18. Did you ever talk with William E. Tallman about this windmill or the well where the windmill was?

A. I don't remember now as I ever did, but possibly I might; it was so long ago I don't remember as I did.

X Q. 19. How long after this windmill was erected did William E. Tallman own the grist-mill and saw-mill?

A. I couldn't tell the time; I should think not long after that; still he might have owned it four or five years after that; I couldn't say.

X Q. 20. At the time this windmill was erected was there any railroad running through Preble; if so, what road was it, by what name known, and what were the names of the places at each terminus?

A. There was a railroad, the Syracuse and Binghamton; the name of places at each terminus was Syracuse and Binghamton.

X Q. 21. Do you know that this windmill came to Preble on that railroad?

A. I do not.

X Q. 22. At the time this windmill was erected was there any other windmill on this farm owned by William E. Tallman?

A. Not that I know of; I don't remember of any other before this.

X Q. 23. During the entire time that you had known this farm and the grist and saw mill that William E. Tallman owned had you seen a windmill on the place before you saw the one you have testified about?

1584 A. I don't remember of seeing any on the farm before this.

X Q. 24. State as nearly as you can the year you saw the windmill first.

A. I should think, perhaps, it was about 1870, or might be a year or two or three years before or after that; it is merely guess-work, it was so long ago.

X Q. 25. Do you know positively that William E. Tallman lived in the house west of the grist-mill and north of this east and west road that you have spoken about, at the time that you first saw this windmill?

A. I couldn't say positive, but I think he did.

X Q. 26. When you went there to mill did William E. Tallman attend at the mill, taking in grain, attending to the grinding, and delivering grist?

A. He did not.

X Q. 27. Did you, at the time you saw this windmill first, know Dewitt C. Callen; if so, where did he live at that time?

A. Yes; I did know him; he lived on the corner where the north and south road and the east and west road I testified about come together, on the south side of the east and west road and east side of the north and south road.

X Q. 28. From this house could you see this windmill on Tallman's farm; if so, how far was it from the house to the windmill?

A. I think you could see it from the house; the distance would be from thirty to sixty rods.

X Q. 29. Has Mr. Callen lived in that house from the time you first saw this windmill up to the present time?

A. He has, the most of the time; I am not certain all of the time; he lives there now.

X Q. 30. In going along this north and south road and the east and west road can you see over most of the Tallman farm?

A. You can.

X Q. 31. Does the Syracuse and Binghamton railroad run through this farm; and, if so, on which side of where this windmill was?

A. It does run through the farm and east of the windmill.

1585 X Q. 32. About how far was this windmill from the house where Wm. E. Tallman lived?

A. Well, if I was to guess at it I should guess it was 150 or 200 rods, and perhaps more; it was quite a distance.

X Q. 33. Did you ever talk with Moses T. Tallman about this well or the windmill; if so, when?

A. I don't remember of ever saying anything to him about it.

X Q. 34. Did you know Thomas J. Getman at the time you first saw this windmill; if so, where did he live and what was he doing?

A. I knew him. I don't know where he lived or what he was doing.

X Q. 35. Do you know of said Getman enlisting in the army in the late war?

A. I don't know of his enlisting nor of his ever going, if he enlisted. He might have enlisted. I should think he didn't go, but he might.

X Q. 36. What year was it that you heard of a driven well being put down on the fair ground at Cortland?

A. I guess I stated it was in the forepart of the war, some time in 1862 or 1863, or about that time—about the time the encampment was on the fair ground. I am not certain but the encampment was there in 1861.

X Q. 37. Who told you about this driven well on the fair ground?

A. I couldn't tell who told me anything about it; it was general report.

X Q. 38. Did you see this well on the fair ground?

A. Not at that time.

X Q. 39. Did you at any time see it; if so, when did you see it?

A. I don't know that I ever saw it to examine it; have been there and drank water from it, but can't tell when it was; it might have been some other pump than that; couldn't say.

X Q. 40. Was it while the soldiers were encamped on the fair ground that you heard of the driven well being made there?

A. I think it was at that time.

Cross-examination rests.

1586–1588 R. D. Q. 1. Has it been an unusually dry summer this season, especially during the months of June and July and the forepart of August?

A. It has with us.

(S'g'd) ORRIN PRATT.

Subscribed and sworn to before me this 19th day of September, 1880.

(S'g'd) H. J. MESSENGER,
Notary Public.

1589 **James B. Share**, produced by complainants, being duly sworn, testifies as follows:

Q. 1. State your name, age, residence, and occupation.

A. James B. Share; my age is 44 years; my residence is Preble, Cortland county, N. Y.; my occupation is a farmer.

Q. 2. Do you know Thomas Ballard, a farmer, living in Preble?

A. Yes, sir; I do.

Q. 3. State whether you live on the same farm which is occupied by him and in a house which you rent of him.

A. I do.

Q. 4. How long have you lived on that farm?

A. Since about the first of last April.

Q. 5. Do you know Noah J. Parsons, one of the complainants in this suit?

A. Yes, sir.

Q. 6. When did you first see him? And state whether you are acquainted with either of the other complainants.

A. I first saw Parsons when he came up to the farm I live on some time in July last. I don't know who the other complainants are.

Q. 7. State whether you was called upon by Mr. Thomas Ballard to assist him in cleaning out a dug well on the farm mentioned, and which had been filled up, and which was being reopened, and which had already been partially reopened.

A. Yes, sir.

Q. 8. When did Mr. Ballard thus call on you?

A. I couldn't say just what day; it was some time in July last.

Q. 9. Where was it done? And state whether anybody was with him when he asked you to assist him.

1590 A. It was somewhere on the farm; I can't tell where it was; where I was at work. No one came with him. It is the farm he occupies.

Q. 10. State whether you did assist him in cleaning out the well.

A. I did.

Q. 11. Where was this well with reference to your house and the nearest highway, and whether in an open field or not?

A. It was an easterly direction from the house, and, I should think, some forty or fifty rods from it and about forty rods from a north and south road and a little farther from an east and west road and in an open field.

Q. 12. State whether the well was at a point on a common level with the ground immediately surrounding it or in a sag or depression of ground.

A. It was in a sag or low ground.

Q. 13. State whether or not you had been on or about where the well is before it was commenced to be reopened.

A. I had never been on the exact spot before, but had passed by within a few rods of it before during the earlier part of this season.

Q. 14. Had you discovered during the earlier part of this season, when, as you say, you passed near where the well is, any remains of a windmill lying upon the ground there?

A. Yes, sir.

Q. 15. Describe the remains there as well as you can—of what they consisted of.

A. They consisted of some iron works that lay there. I never examined them; they lay there; I never examined them at all; there was nothing of the wood kind there where the iron was; the irons were some ways from the well; there was some old timbers near the spot where the well is.

Q 16. State whether the irons appeared to be old or new irons.

1591 A. They appeared to be old.

Q. 17. Witness, please step to the office of Frederick Hatch, a notary public of this village, and look at some old irons now in his office, and state whether the irons there are the same that you had seen lying upon the ground about the spot where this well is.

A. I should think they were the same irons.

Q. 18. State whether, when you had passed during the earlier part of this season near the spot where the well is, as you say you did, there was any appearance of there being a well there, or whether it was covered by the ground.

A. I saw no appearance of any well then; it was pasture ground.

Q. 19. When you went to assist Mr. Ballard in cleaning out this well, state whether the well had been partly already reopened or not; and, if it had been, about what depth down it had been reopened.

A. It had been partly reopened to the depth of about twelve feet.

Q. 20. State whether you went with Mr. Ballard to the well at the time you commenced assisting him in cleaning it out or not.

A. We went down to the well together.

Q. 21. Anybody with you, or did you find anybody else at the well when you went down?

A. I think there was no one with us, and we didn't find any one there.

Q. 22. State now how you proceeded in cleaning out the well; by what means.

A. Mr. Ballard went down into the well and scraped out the gravel and dirt, and I drew it up by the use of a pail and straps lengthened out by a rope halter.

Q. 23. State what tools he took down with him for use besides the pail, if any.

A. He took a small iron bar called a crowbar and a fire shovel—a short-handled shovel; the crowbar had been pointed, but was pretty dull.

Q. 24. What time in the day did you commence cleaning out the well?

1592 A. Perhaps two o'clock, or between two and three in the afternoon; I made no note of it; we worked, perhaps, two hours that afternoon; we afterwards finished it.

Q. 25. State as to the stone and dirt and mud that you drew out. What was done with it, or where was it placed?

A. We emptied it out on the ground a few feet from the well.

Q. 26. State whether you observed, when you commenced cleaning out what remained in the well, that there was a quantity of similar material already piled about the well at the surface.

A. Yes, sir; there was, with cobble-stone mixed in.

Q. 27. Was there anything like a strainer and a sheet-iron tubing sent up by Mr. Ballard from within the well at the time, during the time you and he were engaged in cleaning it out?

A. Yes, sir.

Q. 28. I now present you these two articles—one a section of sheet-iron tubing rusted and at one end rotted out somewhat, and of about fourteen inches in diameter and 12 inches in length; the other article being a copper strainer, with a neck of about two inches in length and about an inch and three-quarters in diameter, also rusted or corroded, and ask you to state whether these are the articles that was sent up by Mr. Ballard from within the well to you at the surface, while you and he were engaged in cleaning out the well, as you have stated?

A. Yes, sir; they are the same.

Q. 29. Does each of the articles present here, in respect to rust and corrosion, the same appearance as they did when thus sent up from within the well by Ballard?

A. I should think they did, except that they were wet and muddy then.

1593 Q. 30. Did the strainer have about its neck then the leather tie, the same as now?

A. It did.

Q. 31. You observe on each, do you now, a written statement pasted on under the signature of Frederick Hatch, notary; was this statement on either of the articles when they were sent up from within the well?

A. I observe the written statement on the articles; they were not on when they were sent up.

Q. 32. Did any person come to the well at or about the time these articles were sent up from within the well to you at the surface, and while they were on the ground about the well; if yea, who was that person?

A. There was a person came there at that time, and that person was my wife.

Q. 33. Do you know whether she saw these articles at that time?

A. Yes, sir; she saw them.

Q. 34. To what place were these articles removed from the well?

A. I think Mr. Ballard carried them up to the barn and put them in the granary.

Q. 35. When?

A. The night after we took them from the well.

Q. 36. State whether you saw them after that night, until you now see them, upon giving your evidence here before the notary.

A. I think not, but I wouldn't say positive.

Q. 37. How far is your house from the house occupied by Mr. Ballard?

A. About a mile is what we call it.

Q. 38. State—to the granary in what barn Mr. Ballard took these articles, and how far distant such barn is from your house.

1594 A. The granary in the barn on the premises I live on, distant from my house about ten or twelve rods.

Q. 39. How long did the articles remain in that granary, and who took them away, and when were they taken away, if you know?

A. I don't know how long they remained there; they were there a week, perhaps, or more. I don't know who took them away, but I understood Parsons did.

Q. 40. I now hand to you a photograph of the sheet-iron tubing and copper strainer which have here been shown you, "and to which your testimony here given relates," and ask you to examine the photograph with reference to the original now before you, and to say whether such photograph (the same being on one sheet or card) are or not a correct representation of such originals?

A. I should say they were.

The complainants' counsel here gives over to the notary in evidence the same photographic sheet or card testified to by the witness in his last answer above, and asks the notary to return it with and as a part of witness' testimony as an exhibit, and the notary does so, the said sheet or card being marked "Complainants' Exhibit A," with the notary's initials "H. J. M., notary; September 15th, 1880," the same being so returned to the court with this witness' testimony; the notary at the same time, by request of complainants' counsel, marking for identification the original section of sheet-iron tubing and copper strainer to which the photograph relates by affixing to each, under his signature, the following written statement: "Original copper strainer presented to the witness, James B. Share, and to which his above testimony and Exhibit A relate. H. J. Messinger, notary." This being affixed on the original copper strainer—on the said original section of sheet-iron tubing—the notary affixes the following statement: "Original section of sheet-iron tubing presented to the witness above named and to which his testimony and the above Exhibit A relates—H. J. Messinger, 1595 notary"—complainants' counsel stating that he desires to retain the originals for the present for use in taking their further testimony, but that the same will be produced on the hearing of this cause before the court.

Direct examination concluded.

Adjourned to 7 o'clock p. m.

Seven o'clock p. m.—Parties appear, pursuant to adjournment, same as before.

Crosss-examination by Mr. LAKE:

X Q. 1. When did you first move to Preble?

A. Last April; I think it was the third day of April, 1880.

X Q. 2. Where did you live before that?

A. I lived in Homer, Cortland county, N. Y.

X Q. 3. How long did you live in Homer?

A. Some three years.

X Q. 4. Did you know anything of this well that you have testified about helping Ballard clean out before you moved to Preble?

A. I did not.

X Q. 5. What month and day of the month was it that you and Ballard commenced to clean out that well?

A. Well, 'twas in July; I couldn't tell the exact day; it was not far from the middle of the month.

X Q. 6. Was it as late as the 25th day of the month of July?

A. It might have been, but I hardly think it was.

X Q. 7. Have you any data by which you can fix a date that it was not later than the date so fixed? If so, give that date.

A. I haven't any.

X Q. 8. Are you positive that it was in July?

A. Yes.

X Q. 9. Are you positive that it was earlier than the 29th day of July?

A. Well, my impressions are very strong that it was earlier than that, but still I would not be positive; I didn't make any note of it at the time.

1596 X Q. 10. When you went to the well first on that day was there any ladder or board or scantling in it?

A. There was not.

X Q. 11. How did Mr. Ballard get down into the well?

A. Climbed down on the wall.

X Q. 12. How many pailfuls of dirt and water did you take out of the well that day? State as near as you can.

A. I couldn't tell anything about it, how many.

X Q. 13. Which of these articles that have been shown you was sent up first by Mr. Ballard?

A. The copper strainer.

X Q. 14. Was that sent up the first day that you worked at the well?

A. It was not.

X Q. 15. What time of day did you quit work that first day?

A. I should think probably it was between four and five o'clock in the afternoon.

X Q. 16. How much did Mr. Ballard lower the surface of the ground in the well during that day?

A. I don't know how much; probably from six to twelve inches.

X Q. 17. What time did he commence to work the first day that you worked at it?

A. Perhaps two o'clock—afternoon.

X Q. 18. Do you mean to say that Mr. Ballard was down in that well to work and you was above drawing out dirt from about 2 o'clock p. m. until after 4 o'clock p. m. and only lowered the bottom of the well about six to twelve inches?

A. Yes, sir; that is what I say; you must take into consideration that we had to draw considerable water as well as dirt.

X Q. 19. What was Ballard doing that length of time?

A. He was loosening up the dirt at the bottom of the well and shoveling it into pails.

X Q. 20. What else was he doing? State fully.

A. He was feeling around the edge of the wall occasionally with his hands; I guess that was all; I don't know of his doing anything else; he was in the well, I was up above; he knew better what he was doing than I did.

1597 X Q. 21. When you went there and commenced work how much water was there above the dirt in the bottom of the well?

A. I don't know how much there was.

X Q. 22. Could not you see the dirt above the water in the bottom of the well?

A. No, sir.

X Q. 23. Did the water cover the bottom of the well, as it then was, completely?

A. Yes, sir; as far as I could see from the top.

X Q. 24. How many pails of water did you pull out before you could see the dirt in the bottom of the well from the top?

A. Didn't pull out any pails of water only as it was mixed up with gravel—mud and water together.

X Q. 25. What time did you get the water out so that you could see the dirt at the bottom of the well that first day?

A. Didn't get it out so I could see dirt at any time in the bottom of the well that day.

X Q. 26. What time did you commence to work at the well the second day?

A. I couldn't say just the time; along in the afternoon; perhaps two o'clock, and it might have been a little later.

X Q. 27. How long did you work that day?

A. Oh, two or three hours.

X Q. 28. How much did you lower the bottom of the well that time?

A. A foot or more, probably; I didn't take any measurement, of course; all I done was to hand out dirt; I am all of the time guessing at it.

X Q. 29. How much water was in the well when you commenced work at that time?

A. I don't know how much there was.

X Q. 30. How long had you been at work when Mr. Ballard sent up the sheet-iron cylinder that has been shown you?

A. Between two and three hours, probably.

X Q. 31. How long did you work after he sent that up?

A. Not but a very little while; we might have worked a few minutes.

1598 X Q. 32. Did you haul up any dirt after the cylinder came up?

A. Well, I don't recollect; I think we did draw up a few pailfuls.

X Q. 33. About how many pailfuls? State as nearly as you can.

A. Not more than three or four, if we did that.

X Q. 34. How long after he sent up the sheet-iron cylinder before he sent up this copper strainer?

A. He sent up the copper strainer first.

X Q. 35. How long after he sent up the copper stainer before he sent up the sheet-iron cylinder?

A. Perhaps ten or fifteen minutes.

X Q. 36. When this copper strainer came up did Mr. Ballard call your attention to it? If so, what did he say?

A. He said that was copper; take care of that.

X Q. 37. How many pails of dirt did you then take out before the sheet-iron cylinder came up?

A. I don't know how many; not a great many.

X Q. 38. How long did Mr. Ballard stay down in the well after he sent up the sheet-iron cylinder?

A. A very short time; it could not have been over five minutes; perhaps not that.

X Q. 39. Did you find any pieces of wood or iron, or other like matter, in the dirt he sent up, aside from this strainer and cylinder? If so, what was it?

A. Well, I saw a piece of tin. I suppose it had been an elevator bucket. I don't remember of anything else.

X Q. 40. What was done with that piece of tin?

A. I don't know what was done with it.

X Q. 41. Did Mr. Ballard carry it away, as he did this cylinder and strainer?

A. I don't think he did.

X Q. 42. What did Mr. Ballard say when he took this cylinder and strainer away with him?

A. I think he said, better take care of them; they might be wanted in evidence.

1599 X Q. 43. What else did he say during the time you were with him at the well and going to the barn about these articles being used or wanted in evidence?

A. Nothing, as I recollect of.

X Q. 44. What did he say as to who would want them, and for what purpose were they to be used in evidence?

A. He didn't say anything in reference to that.

X Q. 45. Who cleaned out the part of this well that was taken out before you began work at it?

A. I don't know. I understood they employed a man by the name of Wicks. I don't know his first name, but think it was Hiram.

X Q. 46. How long before you went there was it that Wicks worked at the well?

A. I don't know how long it was—perhaps a week.

X Q. 47. Did you go to this well after Wicks worked there before you went there with Mr. Ballard and helped clean it out?

A. No, sir.

X Q. 48. Did you go there after you quit work the first day, and before noon of the next day?

A. I think not.

X Q. 49. Where was Mr. Ballard after you quit work on this well the first day and up to the time you went there the second day?

A. He was about his business, around on the farm, as usual, as far as I know.

X Q. 50. Did he board with you and at your house?

A. He did not.

X Q. 51. How far from your house did he board or live?

A. About a mile.

X Q. 52. Which way from your house?

A. East.

X Q. 53. Mr. Share, when was the first time you saw this copper strainer that has been shown you?

A. The first time I saw it was when I drew it out of the well.

X Q. 54. Did you and Mr. Ballard go back to that well and clean it out more after you quit work at it on the second day; if so, when?

1600 A. We went back there for that purpose after the second day; it was several days after; I should think it was inside of a week; we did not do much of anything, there was so much water.

X Q. 55. Did you and Mr. Ballard, any time after that third time, go and clean out this well? If so, state fully when, and what you did.

A. No, sir; we did not.

Adjournment to 9 o'clock a. m., September 16th.

SEPTEMBER 16TH—9 o'clock a. m.

Parties appear, pursuant to adjournment, same as before.

Cross-examination resumed:

X Q. 56. Do you know John W. Suggett and Irving H. Palmer, attorneys, of Cortland village, and who have assisted the defendant in this case?

A. I do not.

X Q. 57. Have you seen them so that you know them by sight?

A. I don't think I have.

X Q. 58. Did you see two men when you and Mr. Ballard were milking in the barn near where you live, and did they talk with you and Mr. Ballard about the well and inquire for Hiram Wicks about the time you and Mr. Ballard first cleaned out this well?

A. I think there were two men in the barn one night as we were milking; they talked with Mr. Ballard; I don't know as they talked with me; I don't recollect as they did; I think they did inquire for Hiram Wicks.

X Q. 59. Was this before you and Mr. Ballard worked at cleaning out the well the first day?

A. I can't tell.

X Q. 60. When you and Mr. Ballard were at work at the well did you have a ladder or a pump there?

A. We had both.

X Q. 61. Did you have a pump there the first day you worked?

1601 A. Well, I am not certain; I think we did not the first day.

X Q. 62. What day did you have the pump?

A. If it wa'n't the first day it must have been the second.

X Q. 63. Did you pump out the water so you could see the earth in the bottom of the well?

A. No, sir.

X Q. 64. Why did you not pump it out?

A. The pump gave out.

X Q. 65. Did you not see this sheet-iron cylinder before Mr. Ballard sent it up to you from the well?

A. I never saw it before as I know of.

X Q. 66. Has any of the counsel for the complainants or Mr. Parsons talked to you about your testimony since you was on the stand yesterday; if so, who talked to you?

A. Mr. Goodrich and I talked together; Mr. Parsons was present part of the time; I don't know as we had any talk; I had no talk with any one else.

X Q. 67. John W. Suggett and Irving H. Palmer are now present in the room. Look at these men and state whether these are not the men that came to the barn where you and Mr. Ballard were milking, as stated in your examination?

A. I think they are the same men, and Mr. Suggett in particular; I am not as certain about the other, but I think he is the same.

X Q. 68. In cleaning out this well did you and Mr. Ballard take out any stone larger than would go into the pail you used?

A. No, sir; not as I recollect of.

X Q. 69. Give the size, as nearly as you can, of the largest stone taken out by you and Mr. Ballard.

A. I recollect we did take out one, quite a large stone; it was probably six or eight inches in diameter; it was rather of a long kind of cobble-stone.

X Q. 70. When your wife came to the well did she stay there until you and Mr. Ballard started for the barn?

A. She did.

X Q. 71. How long had she been there when Mr. Ballard sent up this sheet-iron tubing?

1602–1608 A. I don't recollect as to that.

X Q. 72. Was she there when he sent up this copper strainer?

A. I think not.

Cross-examination rests.

1609 SEPTEMBER 17TH, 1880—8 o'clock a. m.

Parties appear, pursuant to adjournment; same as before.

Witness resumed.

Redirect examination:

R. D. Q. 1. You have stated on your cross-examination that Mr. Hiram Weeks had done something about cleaning out the well, as you understood, prior to your and Mr. Ballard's cleaning out what was left; state now whether your understanding was that Weeks had cleaned out the well wholly down to the point where you and Ballard found it or whether other parties; and, if so, what other parties had cleaned out a part.

A. My understanding was that Mr. Parsons and a man that came up there with him had cleaned out a portion of it and Hiram Weeks had cleaned out the balance, down to where I and Ballard found it.

R. D. Q. 2. You have answered on cross-examination, in substance, that from the time this well came to be investigated and cleaned out you were not at the well until you and Mr. Ballard went there first to do what you and what he did in cleaning it out; please state whether you were not there shortly previously when something was done to ascertain how far it was from the surface down to water within this well.

A. Yes, sir; I recollect that I was there previous.

R. D. Q. 3. State who were there with you and what was done.

A. The man that came up with Mr. Parsons was there with me; I don't know his name.

1610 Witness continues:

We took a cord and measured the depth inside the pipe—"a cord and lead I ought to have said"—which was driven in the well; that was all that was done, except to see what the depth was. The depth to the bottom of the pipe was about twelve feet, and there was about six inches of water at the bottom of the pipe, making the distance to the water about eleven and a half feet.

R. D. Q. 4. State how you came to be there and assist in this measuring.

A. I was requested to go there by Mr. Parsons or the man that was with him; I don't remember which?

R. D. Q. 5. Where were you and what were you doing when the request was made?

A. I think that I had just gone down to the barn after dinner; I was not doing anything; they wished me to go down before I went out to the field to work.

R. D. Q. 6. When the request was made who were present?

A. I think Mr. Parsons was present and the man that went with me to the well and Mr. Ballard; whether there were any more or not I can't say.

1611 R. D. Q. 7. You have stated on cross-examination that you and Mr. Ballard were engaged during parts of two or three days in cleaning out what dirt, etc., remained in the well; do you recollect whether it was parts of two days or parts of three days?

A. I don't recollect how many days it was definitely.

R. D. Q. 8. Did you encounter any difficulty that delayed your work? If so, state what it was.

A. The difficulty that delayed us was the water.

R. D. Q. 9. What sized pail was used in taking up the earth and water?

A. I should think it was a fourteen-quart pail.

R. D. Q. 10. Was there anything else used to get up the water out of the way of cleaning out the earth?

A. We had a pump on one of the days; it was a tin pump; I don't know the size of it.

R. D. Q. 11. By what kind of pipe was the pump extended down to the water?

A. I should think the pipe was a zinc pipe, extended down to the water by lengthening it out with tin pipe; I don't know how long we used it; we used it some, and the tin pipe gave out and we had to take it out and abandoned its further use.

R. D. Q. 12. Who brought the pump there, and on what day of the cleaning out of the well by you and Ballard, according to your recollection?

1612 A. Mr. Parsons brought the pump there; whether it was the second day or later I can't say.

R. D. Q. 13. You say Mr. Parsons; was it the same Mr. Parsons, who as you understand to be, one of the complainants in this cause?

A. Yes, sir; the same.

R. D. Q. 14. State how much of the time, if any, he was present at the well during your and Mr. Ballard's work in cleaning it out.

A. He was there part of the time; I couldn't say how long he was there.

R. D. Q. 15. State whether you at that time were in the employ, as hired man, of Mr. Ballard.

A. I was.

R. D. Q. 16. During the time while Mr. Ballard and you were engaged in your work of cleaning out this well did Mr. Parsons give any directions to one or both of you as to how far down you should clean out the well? If so, state what his directions were.

A. He did give directions; said he wished to get down as low as the bottom of the walls of the well.

R. D. Q. 17. Are you able to state whether this direction was given before or after the sheet-iron tubing and copper strainer were found and sent up from within the well?

A. I think it was after.

R. D. Q. 18. During your and Ballard's work in cleaning out the well did you yourself enter down into the well at all?

A. I did not.

Redirect closed.

1613 R. X Q. 1. Yesterday you testified that you was not at this well until you and Mr. Ballard went there to clean it out; you state to-day that you was there shortly before that and helped to measure the depth to the water in a pipe; now, explain how it is that you so contradicted yourself.

A. Well, the explanation is that the circumstances of my being there had entirely escaped from my memory until other circumstances brought it back. The circumstances were by talking with my wife on the subject, and, thinking the subject over in my mind, it came back to me that I was there and helped to measure this pipe.

R. X Q. 2. What did your wife say to you that related to your measuring the pipe?

A. She said that I must have forgotten about it, as she recollected my going down there.

R. X Q. 3. On yesterday you stated that you only worked there two days with Mr. Ballard; you now state, on redirect examination, that you might have worked there longer; please explain this contradiction in your testimony.

A. All the explanation I can make of that is, to the best of my remembrance, we only worked there two days. I couldn't swear positively that we didn't work more than two days.

R. X Q. 4. Will you now state how many days you and Mr. Ballard did work at cleaning out this well, according to your present recollection?

A. I think very likely we worked there three days or parts of three days; I couldn't say positive.

R. X Q. 5. Now, which day was it that N. J. Parsons was there while you and Mr. Ballard were at work cleaning out this well?

A. I cannot say which day it was that he was there.

R. X Q. 6. Was N. J. Parsons there when Mr. Ballard sent up this copper strainer and sheet-iron cylinder.

A. I don't think he was there.

R. X Q. 7. Was he there that day at all?

A. I don't know whether he was or not.

1614 R. X Q. 8. Since you was on the stand yesterday or the day before has any one told you or read to you any part of Mr. Ballard's testimony about cleaning out this well?

A. No, sir.

R. X Q. 9. Has not some one talked to you about your testimony since then?

A. Not as I recollect of; I think not.

R. X Q. 10. Do you now remember whether this copper strainer and sheet-iron cylinder were taken out the first or second day you worked there?

A. I can't tell for certain.

R. X Q. 11. When asked on that subject in your cross-examination you was very positive; how is it that your memory is so defective now?

A. My impressions were very strong that they were taken out the second day, but, since thinking it over, I have thought possibly I might have been mistaken; perhaps they might have been taken out the first day.

R. X Q. 12. Since you are so liable to be mistaken might you not be mistaken in many other things you have testified to?

A. I think it is very likely that I might; my memory is very treacherous.

(S'g'd) JAMES B. SHARE.

Subscribed and sworn to before me this 17th day of September, 1880.

(S'g'd) H. J. MESSENGER,
Notary Public.

1615 Mrs. EMMA SHARE, produced as a witness for the complainants, and being duly sworn, testifies as follows:

Q. 1. State your name, age, place of residence, and whether you are the wife of James B. Share, the last witness sworn.

A. My name is Emma Share; my age is 27 years; my place of residence is Preble, Cortland county, N. Y.; I am the wife of James B. Share.

Q. 2. Have you been present during the taking of your husband's testimony here to-day or yesterday? If for any part of the time during the giving of his testimony, state how long.

A. I have not been present to-day. I was not present yesterday during the taking of his testimony.

Q. 3. Do you know Mr. Noah J. Parsons, one of the complainants in this case?

A. I do.

Q. 4. About when did you first see him, and where, and on what occasion?

A. It must have been in July, 1880, on the farm that I and my husband live on, in Preble, N. Y. I didn't know his business the first time I saw him.

Q. 5. Did you know that your husband was engaged with Mr. Ballard, the man on whose farm you and your husband live, in cleaning out a well on that farm some time in July or August last?

A. I did.

Q. 6. State whether you were at the well during the time they were so engaged; and, if so, how many times, and how you came to go there.

A. I was there during the time. I was there twice. I merely went to see them work.

Q. 7. Please state what your husband and Mr. Ballard were doing; how they were at work in respect to cleaning out the well.

A. Mr. Ballard was down in the well shoveling the dirt into a pail and my husband was drawing it up.

Q. 8. At either of these times you were there, as you say, did you see anything like a section of sheet-iron tubing or cylinder and a strainer of the character of one that goes onto a sprinkling pot there at the well?

1616 A. I did.

Q. 9. Describe the section of sheet-iron tubing as to appearance of age and rust, and also size, as near as you can.

A. It seemed very old and a good deal rusted, and had the appearance of being partially rotted out more at one end than the other. I am not used enough to any such thing to tell anything about the size.

Adjourned to 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Parties appear, pursuant to adjournment, same as before.

Q. 10. State whether the strainer was rusted or corroded, and describe its appearance as well as you can.

A. Yes, sir; the strainer was rusted or corroded. It appeared very old and had perforations like a strainer to a sprinkling pot.

Q. 11. State where the strainer was at the well when you first saw it, whether already at the surface when you came or brought up from the well after you came.

A. The strainer lay on the ground, perhaps two feet from the well—lay on the grass.

Q. 12. State whether the section of sheet-iron tubing was already on the ground at the surface when you came or whether it was sent up after you came; and, if after, how long after.

A. It was sent up after I got there. I couldn't tell how long, but I know they drew up a pail or two of dirt after I got there before the sheet-iron cylinder came up.

Q. 13. I now present to you this section of sheet-iron tubing, and also the strainer, and ask you to say whether you do or not recognize them to be the same that you saw there at the well on the occasion of your being there.

A. Yes, sir; they are the same.

Q. 14. The notary is here asked to turn to the Complainants' Exhibit A, put in the evidence of the previous witness, 1617 James B. Share, which is here shown to the witness, and the witness is asked to say whether the photograph so shown is a correct representation of the said section of sheet-iron tubing and the strainer which have been shown you and which you say are the same that you saw at the well on the occasion of your being there referred to in your evidence.

A. Yes, sir; I think they are.

At request of complainants' counsel the notary here, in presence of Mr. Lake, counsel for the defendant, states that the photograph shown the witness is the same that was shown to the previous witness, and in connection with his testimony returned as Complainants' Exhibit "A," and that the original section of sheet-iron tubing and the strainer are the same that were shown to the previous witness, and to which his testimony relates.

Direct examination ended.

Cross-examination:

X Q. 1. How many days did your husband work with Mr. Ballard cleaning out that well?

A. I don't remember of but two.

X Q. 2. Do you know of any other parties working at cleaning out this well before your husband and Mr. Ballard commenced at it? If so, state how long before your husband and Mr. Ballard went there these persons did their work.

A. I knew there were men there, but I did not know what they were doing or what they were there for. It must have been nearly a week before they—my husband and Mr. Ballard—went to clean it out.

X Q. 3. Was it on two consecutive days that your husband and Mr. Ballard worked at cleaning out that well?

A. No, sir; it was not.

X Q. 4. How many days intervened between the first day they were there and the second day?

A. I can't tell anything about it. It might have been two or three weeks, for all I can remember.

X Q. 5. Was it the second day you was down there and saw this sheet-iron cylinder and copper strainer?

1618 A. No, sir; it was not.

X Q. 6. How long had your husband and Mr. Ballard worked at cleaning out this well when you went down and saw this cylinder and copper strainer?

A. It must have been nearly an hour and a half.

X Q. 7. How long did they continue to work that day after the cylinder was sent up to the surface?

A. It might have been half an hour, and it might not have been so long; I can't say definitely. It wasn't any longer than that.

X Q. 8. Did you remain at the well until your husband and Mr. Ballard quit that day?

A. I did.

X Q. 9. What did they do with this sheet-iron cylinder and copper strainer when they quit that day?

A. They took them away from the well; anything further I don't know what they did with them.

X Q. 10. Was Mr. Parsons there this first day that you saw the strainer and cylinder?

A. He was not at the well when I was there; he was there in the forenoon, but I didn't go down to the well in the forenoon. This was in the afternoon that I went down.

X Q. 11. Did your husband and Mr. Ballard work at this well in the forenoon of that day that you first saw this copper strainer and sheet-iron cylinder?

A. They did not.

X Q. 12. Who did work at the well that forenoon?

A. I don't know that anybody did.

X Q. 13. Did you see Mr. Parsons go down to the well that forenoon?

A. No, sir; I did not see him go down, but I saw him when he came up from the well; he went down when we were eating dinner, I suppose; his team was there.

X Q. 14. Did your husband work at cleaning out this well in the afternoon of the day before the day on which you first saw this copper strainer and sheet-iron cylinder?

A. No, sir; he did not.

X Q. 15. What did your husband do on the afternoon of the day before the day on which you went down to the well and first saw this copper strainer and sheet-iron cylinder? 1619–1621

A. I can't tell for certain, but I think they were drawing oats, for they were drawing oats about that time.

X Q. 16. You are sure, are you, that it was during the first day that your husband worked at cleaning out this well that you went down to the well and saw this copper strainer and sheet-iron cylinder.

A. I think I am.

X Q. 17. Are you sure that your husband and Mr. Ballard did not work at cleaning out this well on the afternoon of the next day after you went down and first saw this copper strainer and sheet-iron cylinder?

A. I have nothing to make me sure of it, but I don't think they did.

(Signed) EMMA SHARE.

Subscribed and sworn to before me this 17th day of September, 1880.

(S'g'd) H. J. MESSENGER,
Notary Public.

1622 Complainants call EBEN DALEY as a witness, who, being duly sworn, testifies as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is Eben Daley; my age is 55 years; my residence is Preble, Cortland county, N. Y.; my occupation is a farmer.

Q. 2. State how long you have owned and occupied as a farmer a farm in Preble, and about the size of your farm.

A. About thirty-two years. The farm I now own and occupy is about 137 acres.

Q. 3. Where is it located, with reference to the Tallman well, which was operated formerly by a windmill, and which is here in question?

A. It is within less than a mile and a half, and nearly directly north of this Tallman well, where the windmill was.

Adjourned to 7½ o'clock p. m.

7.30 O'CLOCK P. M.

Parties appear pursuant to adjournment.

Irving H. Palmer as counsel for defendant in place of Mr. Lake.

Q. 4. Were you acquainted, and are you, with Moses Tallman, and were you acquainted with his brother William while living?

A. Yes, sir.

Q. 5. How far do you live from Moses Tallman, and how far did you — from William Tallman, while he resided in Preble?

A. I live now, by road, nearly two miles and a half from Moses, and I formerly lived a little nearer to him, and about two miles from William Tallman, while he resided there.

Q. 6. State whether you were acquainted with each of them, and how well acquainted with each, and for about how long?

1623 A. I was acquainted with each of them; as well acquainted as with any neighbors that far off. I attended the same church as they did; have known them for about twenty years.

Q. 7. Mr. Daley, state if you have held any positions of public trust in the town of Preble; if so, what.

A. I have been justice of the peace there for two terms of four years each.

Q. 8. Did you know that there was a windmill put up and in use on the farm of William Tallman, while he resided there in Preble, operating a pump in a well upon the farm?

A. I know there was a windmill there over a well. I think it was there about twenty years ago. How long it continued I don't know. It has been down a number of years, I should think ten or twelve years, but am not very positive about that, as to the number of years.

Q. 9 (By request of one of the complainants in this cause, Mr. Parsons): Have you been upon the spot of that well since it has been lately reopened, and examined it?

A. I have.

Q. 10. When?

A. It was two weeks ago last Monday. I think it was the 30th of August.

Q. 11. Did any other person accompany you in the examination? If so, name them.

A. There did; they were Thomas J. Getman, John L. Haviland, Mathias Van Hoesen, and Mr. Parsons took us there with his team. We found at the well others; they were Mr. Andrews, one of the complainants, Mr. Thomas Ballard, Mr. Share, the hired man of Mr. Ballard; that was all.

Q. 12. Did you find, on that occasion, the well reopened, and apparently recently done?

A. I found it open, and I understood it had been recently reopened.

Q. 13. In what respects were you requested to examine the well, and by whom requested?

A. Mr. Parsons requested me to go in the well and see if I could make up my mind if the well was cleaned out down to the bottom of the wall.

1624 Q. 14. Did you make that examination; and, if you did, how did you make it, and with what results?

A. I did make it; I went down the ladder to the bottom of the well, and stood on the bottom round of the ladder until the water was all pumped from the well, and then I could get down on my knees and put my hands under the edge of the wall and fell all around under the edge of the wall nearly or quite around the well; I guess I did quite around; the ladder was taken out to give me room so I could get down to the bottom of the well.

Q. 15. What was the depth of the water at the bottom of the well before the pump was applied, in your judgment?

A. I should think it would be about fifteen inches.

Q. 16. Did you take any measurement between the walls of the well at the bottom; if so, what was its diameter there?

A. I did; it was near two feet; a little short of two feet; if anything.

Q. 17. What did you find, from your examination, as to whether the walls came down to the bottom of the well as it presented itself to your view when the water was pumped out?

A. I think the walls came down to the bottom of the well, around the edge of the bottom of the well; the centre of the bottom was about three inches lower.

Q. 18. Of what kind of stone were the walls of the well immediately above the bottom, and for how far above?

A. I should think they were flat stone picked from the field, not quarry stone, for nearly two feet, or quite, and for the rest of the way up of cobble stone.

Adjourned to 8:30 o'clock a. m., Sept. 18, 1880.

1625 SEPT. 18, 1880—8.30 a. m.

Parties appear pursuant to adjournment; Jed. Lake appearing for defendant.

Examination of EBEN DALEY resumed:

Q. 19. Who produced the pump used in exhausting the water from the well, and what kind of pump was it. Please describe it, especially as to capacity, and state whether or not the water at the bottom of the well was fully exhausted by its use.

A. I can't tell who produced the pump only as they told me there; I should think it was a zink pump, but I am not certain but it was a tin pump; it was either a zinc or a tin pump; a tube run down into the well; inside of that was a plunger to suck the water; the tube, I should think, was 3 inches in diameter; the tube was extended down to the water; the water was nearly exhausted by the use of the pump.

Q. 20. Was the pump operated by one or two men conjointly?

A. As far as I saw it operated, it was by two men together; when I was in the well I didn't see how it was operated.

Q. 21. State now who it was that produced this pump there, from what was there said on that occasion?

A. Mr. Parsons told me there "that he or we" brought it there.

Q. 22. Further state generally what directions, if any, Mr. Parsons there at the well gave on the occasion referred to, as to what he desired to have done there.

1626 A. I think it was after this pumping was done that he wanted us to measure the size of the well.

Q. 23. State whether he expressed any direction as to having the water exhausted from the well; and, if so, for what purpose, as there stated by him.

A. He said he wanted I should go down into the well; then they would pump the water out, so I could examine the bottom to see if they had got down to the bottom of the walls of the well; that, I think, was all he said at that time.

Q. 24. State whether there was room for more than one person to be in the well, at the bottom of the well, at the same time.

A. There could more than one common-sized person stand in the well at the same time; I don't think if there was more than one person in the well they could work to advantage at the same time.

Q. 25. State, further, whether there was room in the well, within its walls, for one person, by a beetle or sledge to drive down a pipe or bar in the bottom of the well against any considerable resistance in so driving.

A. I should'nt think a rod or bar could *not* be driven in the middle of the well or near it; perhaps it might have been driven near the edge of the well.

Q. 26. Now, state when the water was pumped out from the bottom of the well when you was down in it, whether you could and did see and examine the surface of the bottom; and, if so, describe the bottem, as to its size and texture of soil or gravel of which it was composed.

A. I did see and examine the bottom of the well; the size was about two feet across the well; the texture was a coarse gravel—I should call it a hard, heavy gravel; the bottom of the well was not level; I felt with my hands around; the gravel was worked out about one inch at the inner edge of the wall, and back of that it rested down on the gravelly bottom; the bottom of the well was lower by about three inches near the center than at the edge of the walls.

1627 Q. 27. When the water at the bottom was exhausted, could and did you observe the influx of water to replenish it; and, if so, from what direction did such influx come, whether upwards through the gravelly bottom or from the sides of the well above the bottom?

A. I could and did observe the influx of water; the influx come in above the gravel and bottom of the well from a northerly direction; as I stood in the bottom of the well I could hear the water run, and looked around and saw it; I should think it was running into the well over the top of the bottom course of flat stones at the bottom of the wall of the well.

Q. 28. Did you observe whether and could you see that there was any influx of water from below the gravelly bottom into the well?

A. I did not see any water come in from the bottom at all.

Q. 29. State whether the current of water coming in from the northerly side of the well and above the bottom was plainly to be seen or not.

A. It was.

Q. 30. How speedily did this current fill up the well to the height of water there was in it as you have stated before the pump was applied to exhaust it?

A. I should think it would take fifteen minutes, possibly twenty minutes, before it was filled up to the same level again; I don't think over fifteen minutes; I could only give an opinion.

Q. 31. Did you examine the bottom where the water was exhausted to see whether there were any points in it softer or more yielding than at other points?

A. I think I did not.

Q. 32. How was the bottom as to being soft and yielding to a bar or other implement struck directly down upon it? If you made any tests of that character please state what they were.

A. The bottom was hard; I had an iron bar when I went down the second time when the water was in; I took the bar and jammed it down in half a dozen places and could not penetrate anything of any consequence.

Q. 33. What next did you do? State fully.

1628 A. I next took the bar and crowded the bar down on the bottom of the well, wriggled it back and forth, and thus got it down into the gravel perhaps 10 or 11 inches, I judge; I did not measure any of it; then I moved the bar from that place and tried another place 6, 7, or 8 inches from that place; that I only penetrated 4 or 5 inches and quit and came out of the well.

Q. 34. Whereabouts in the bottom of the well was your first trial to penetrate?

A. It was a little one side of the middle, I should think, at the lowest point in the bottom.

Q. 35. State whether you could and did see that there was any water entering into the well where these penetrations were made after they were made.

A. I did not see any.

Q. 36. Do you know whether Mr. Thomas Ballard was present on this occasion of examination, and whether he made an effort to work the bar down in the bottom of the well after you had done it, as you state?

A. Mr. Ballard was present at the time; he went into the well after I came out, and when he came out he told us that he had made a hole 5 or 6 inches deep in the bottom.

Q. 37. Now, Mr. Daly, state about the Preble Valley—which way it runs, about how far, and which way it inclines, or which way is the descent; and state about the width of the valley and about the line of the hills on both sides.

A. It runs nearly north and south the full length of the town—five miles or perhaps six; it descends to the south; there is but little descent in the whole five or six miles; the stream runs pretty slow; the width of this valley near this well, south of it a little, is a road running east and west across the valley of a mile, and the valley is some 40 or 50 rods wider than the length of this road; a mile north of this there is another road running parallel with the south one that is called the State road; at that point the valley is two miles wide; a mile north of this well—direct north, still north of the State road—is a line of hills that divides the valley, the east

division of the valley; the Tioughneioga river runs through
1629 the west part of this flat—runs up west of this division of
hills—runs north, but west of this division of hills, the whole length of the town; there is a line of hills on each side of this valley, quite heavy hills, and they run the whole length of the town; their general direction is north and south.

Q. 38. On which side of this river is this well, east or west, and about how far from it?

A. It is on the west side of the river and about three-quarters of a mile from it.

Q. 39. State whether on the south side of the well there is a lake known as Green; Lake and, if so, how far is that lake southerly from this well.

A. There is such a lake about a hundred rods south from this well.

Q. 40. How much lower would you think the lake is than the surface of the ground at the well?

A. I should think it was 12 or 15 feet lower.

Q. 41. Does that lake vary in height of water in different parts of the season?

A. It does.

Q. 42. How was the height of water in it the last of August or first of September, this year (1880), whether as low or lower than you have ever known it to be?

A. I haven't noticed that lake in particular, only as I have seen it at a distance of 40 or 50 rods, but I, with others, considered the lakes all low; I should not want to answer lower, but as low as I have ever known it to be.

1630 Q. 43. What is the condition of water in your valley in streams, lakes, and wells, and what was it the last of August and first of September of this year—whether as low or lower as you have ever known it?

A. I think the wells and lakes are as low as they ever have been.

Adjourned to 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Parties appear, pursuant to adjournment, same as before.

Q. 44. Have you put down dug and stoned wells or well for your own use on your farms in Preble, on the Preble flats, so as to have become acquainted with the strata of soil and of water there to any extent. If so, state what your experience in this respect has been.

A. I have dug and stoned one well for myself on those flats—only one; it was 20 years, or over, ago; it was east of north from this Tallman well; it was probably about 110 rods east and about a mile north of this Tallman well and nearer the river.

Q. 45. Have dug and stoned wells been in common use by the people there heretofore?

A. They have been.

Q. 46. You have spoken in your testimony of having seen, years ago, the windmill over this Tallman well in question. State whether you ever knew or heard from either of the Tallmans or anybody else that there was any different process of obtaining water in that well other than that of an ordinary dug and stoned well until within a year or two, and since the controversy in the present action was commenced.

A. Nothing, except the windmill.

1631 Q. 47. Where, according to your knowledge and information, was the process now known as the driven-well process for making wells first brought into use by anybody in the town of Preble, so far as you know?

A. The first I recollect of was about 15 years ago.

Q. 48. Do you mean that the first you heard of driven wells being put down in Preble was about 15 years ago?

A. Yes, sir.

Q. 49. What well, and for whom, and by whom put down, as you understood, was that well?

A. It was at the depot at Preble, put in for the railroad company, I suppose; I don't know positively. It was put in by Mr. Dunham, of Homer.

Q. 50. Were there other driven wells put down there in Preble about the same time. If so, state any that you know about, and also state by whom put down, as far as you know.

A. There was one other-one put down the same year as the one at the depot or the year after, close by, for Miss Evaline Out and Mrs. Elizabeth Loomis; another for Hoag; and thereafter others were put down; Hoag's was, I should think, within 40 rods of the depot.

Q. 51. When and where, according to the public notoriety, so far as you have heard it expressed in Preble or in Cortland county, did this driven-well process of well making have its beginning or origin?

A. The first I ever heard anything said about it was when the soldiers were on the fair ground here in Cort-
1632–1635 land. The way it come up was this. Some one said the
soldiers were on the fair ground; I said they will have to have water, and he said Green had driven a well on the fair ground; Green was the colonel of the regiment there; this, I think, was while the regiment was there.

Q. 52. When wells were first made by this driven-well process in Preble state how the process was received there by people there, so far as you heard any expressions about it—whether as a new process of well making or otherwise.

A. It was considered a novelty by every one I heard speak of it there in Preble. I didn't hear it spoken of anywhere else at that time.

Q. 53. Mr. Daley, I now place in your hands, before the notary and in the presence of Mr. Lake, counsel for the defendant, a section of iron tubing with perforations at one end—which is the same testified to by Moses Tallman in his testimony here taken before Edward S. More, a notary in this case—and ask you to examine it carefully; and also place in your hands a copper strainer, the same testified to by Thomas Ballard in his testimony here in this case before the notary, Frederick Hatch; and I ask you to say whether the strainer fits onto the perforated end of the iron tube.

1636 Adjourned to 7½ o'clock p. m.—18th.

7.30 O'CLOCK.

Parties appear, pursuant to adjournment, same as before.

1637 Answer is here made by the witness to question No. 53:

A. It appears to me that the strainer does fit onto the end of the perforated tube.

Q. 54. To which—the perforated end or the other end?

A. The perforated end.

Q. 55. I ask you now to take it in your hands and apply the strainer to the other end of the tube and see whether it applies or fits onto that end or can be got onto it at all.

A. It does not fit to that end, and I don't see any way it can be got on without spoiling the strainer.

Q. 56. I now hand you section of lead pipe and ask you to measure the orifice and say what its size is.

A. It is near an inch and a half. I think it was intended for inch and a half.

Q. 57. Take, now, the strainer and see if its neck can be got onto this section of lead pipe.

A. It cannot be.

Q. 58. What are the sizes of lead pipe as found in the market?

1638 & 1639 A. There is inch and a half, inch and a quarter, inch, three-quarters of an inch, five-eighths of an inch, and half inch.

Q. 59. You have bought lead pipe, have you not, and are you acquainted with the usual sizes of lead pipe as found in the market?

A. I have bought inch-and-a-half pipe and inch-and-a-quarter pipe and five-eighths pipe.

Q. 60. Is there, so far as you know, any size of lead pipe in the market between inch and a half and inch and a quarter.

A. There is not, as far as I know.

Complainants' counsel here passes to the notary the section of inch-and-a-half lead pipe testified to by the witness and asks the notary to mark the same as "Complainants' Exhibit C, H. J. M.," and the notary does so and returns the same, in connection with this witness' testimony, to the court.

Q. 61. Place now Exhibit C in connection with the iron perforated end of the perforated tube, and see whether in size of outside and of their orifices they agree or not.

A. The outsides of the two pipes seem to be of the same size, but the inside or orifice of the lead pipe seems to be a little larger about an eighth larger.

1640 Complainants' counsel here shows the witness a photograph of the said perforated section of iron pipe, with the copper strainer put on at the perforated end thereof, and asks the witness whether he has put the strainer onto such end and whether the photograph is a correct representation of the pipe and strainer, when the latter is put onto the perforated end of the former.

A. I have put the copper strainer on the perforated end of said pipe, and the photograph now presented is a correct representation of the two thus joined together.

Complainants' counsel now gives over from the witness to the notary the photograph, and asks him to mark it "Complainants' Exhibit D, No. 2, H. J. M.," and the notary does so, herewith returning the same to the court.

Q. 63. Take, now, the section of perforated iron pipe, and say whether the perforated end appears to have been hammered down in size or in some way brought down to a lessened size, which enables the neck of the strainer to fit onto that end, as otherwise it could not do.

A. It seems to have been made smaller at the perforated end; it seems to have had a slit cut in and tapered under; the one side is tapered under, and that made it less, so that the strainer would go onto the end; if the pipe at this end was the same size as the other end the strainer could not go on.

Q. 64. State how much of the orifice at the perforated end is still left open.

A. I should think less than a quarter of it; about a quarter; a little less, I should think, if anything, but near a quarter of it.

1641–1645 Q. 65. I now place in your hand another section of lead pipe, and ask you to measure it and say what its diameter is, and then connect to that the copper strainer, and see whether the one fits to the neck of the other.

A. The witness does measure and says: The diameter appears to be an inch and a quarter inside; the strainer will go on the pipe, but won't hold itself there; the neck of the strainer is too large for the pipe; the orifice of the neck of the strainer is about a quarter of an inch larger than the outside of the lead pipe.

Counsel for complainants now pass over to the notary this last-mentioned section of lead pipe, and ask him to mark it "Complainants' Exhibit E, H. J. M.," and the notary does so, herewith returning the same to the court.

Direct examination ended.

(S'g'd) EBEN DALEY.

Subscribed and sworn to before me this 20th day of October, 1880.

(S'g'd) H. J. MESSENGER,
Notary Public.

1646 11 O'CLOCK A. M.

Parties appear, Mr. Goodrich, for complainants, and Mr. Irving H. Palmer, of counsel for defendant; and the testimony of Thomas Ballard, a witness on the part of complainants, heretofore taken before Frederick Hatch, a notary, is now retaken, pursuant to stipulation, before the notary, of record in the testimony of James B. Share above appearing at bottom of page 56 and on the next page, 57.

THOMAS BALLARD, called as a witness for complainants and examined by Mr. GOODRICH, for complainants, testified as follows:

Q. 1. State your name, age, occupation, and residence.

A. My name is Thomas Ballard; my age is 50 years; my occupation is farmer; I reside in Preble, Cortland county, N. Y.

Q. 2. Have you a family living with you?

A. I have—my wife. I have one child, but she lives in Homer.

Q. 3. How long have you resided in Preble?

A. About eigteen years.

Q. 4. During that period how well have you become acquainted with the people and affairs in that town?

A. Usually well, as a farmer would, living near the centre of the town.

Q. 5. State whether, while you have lived in Preble, you knew William E. Tallman during his lifetime; also Moses T. Tallman, his brother, still living there.

A. I knew William E. Tallman and also Moses T. Tallman, his brother.

Q. 6. How long and how well did you know each of them, and how near to each while you knew them did you live?

A. I knew Mr. William E. Tallman from the time I came
1647 to Preble until he was dead. I have known Moses T. Tallman from the time I came up to now. I have lived, joining farms with Mr. William E. Tallman, most of the time since I lived in Preble. I knew them very well.

Q. 7. Were both William, while he lived there in Preble, and Moses still owners of farms; and, if so, how were their farms situated with reference to each other?

A. They were both owners of farms. Moses owns his still; their farms joined.

Q. 8. Did you know Ezekiah or Hezekiah Klock, who formerly lived upon and rented the William E. Tallman farm?

A. I did know him. He moved away some years ago to some place South.

Q. 9. How long did he (Klock) live upon and work this William E. Tallman farm?

A. Two years or more.

Adjournment to 2 o'clock p. m.

2 O'CLOCK P. M.

Parties appear, pursuant to adjournment, same as before.

Q. 10. How old and what sort of a man was Klock, and what kind of farming did he carry on on the William E. Tallman farm?

A. He must have been nearly 50 years old, I should think. He was a good, thorough business man. He carried on a dairy farm; kept from 50 to 70 cows on this farm.

Q. 11. How well did you know him? And state further whether you had any business transactions with him while he was living on this William E. Tallman farm.

A. I knew him very well. I rented the house I lived in then of him. That was on this William E. Tallman farm.

Q. 12. How long ago was it that you rented this house and lived in it under Mr. Klock?

A. It was seventeen years ago last spring, which was in the spring of 1863.

1648 Q. 13. State what you know, if anything, about a windmill standing over a well on the William E. Tallman farm there in the spring of 1863.

A. There was a windmill standing there over a well at that time.

Q. 14. What kind of a well?

A. It was a dug well stoned up.

Q. 15. How far was the well and the windmill from the house you occupied in 1863?

A. I should think about 60 rods.

Q. 16. Had you known of the well and the windmill prior to 1863?

A. Yes, sir; I had seen it at times from the year before, but was not any acquainted with it then.

Q. 17. How early did you become acquainted with it, and how become acquainted with it?

A. In 1863, when I moved onto the farm—on the west side of the farm, where the well was—I used to go by it very often and to it; it was on my road to work.

Q. 18. Do you know whether the windmill was in use for pumping water from the well in 1863?

A. I know it was not.

Q. 19. What became of the windmill afterwards, if you know?

A. Well, it either blowed down or fell down; it laid around on the stones in the lot.

Q. 20. How early was it when it blew or fell down—how long ago?

A. I couldn't tell exactly when the windmill did blow down or fall down; I think some of the frame stood some seven or eight years ago; it stood to about that time; other parts of it had fallen before; it fell about seven or eight years ago; some of the wings and iron-work had fallen before.

Q. 21. Of what material were the wings or frames of the windmill?

A. They were sheet iron.

1649 Q. 22. State how well you are acquainted with this windmill standing over this well or from 1863 down to the time when it all went down, some seven or eight years ago, as you say.

A. I was very well acquainted with it; I often saw it.

Q. 23. Was the windmill ever in use for pumping water out of the well after 1863?

A. No, sir; I think not.

Q. 24. Do you know when the pump to which the windmill was attached was taken out of the well and by whom it was taken out?

A. No, sir; I do not; it must have been several years ago, for there has been none there of late years; there has been none there for eight or ten years.

Q. 25. State what you know about the well containing water in years past while the windmill, in whole or in part, was standing.

A. Why, there was always plenty of water in the well.

Q. 26. What finally became of the well?

A. The well got filled up.

Q. 27. How?

A. First, there was a freshet that filled it up partly with dirt from the surface and fine gravel, and afterwards it was filled up with stones; the very top of it I filled up with dirt myself; I shoveled dirt into it and afterwards plowed over it.

Q. 28. For how many years prior to the present season have you plowed over it?

A. I only plowed over it two years; I have mowed and pastured over it about six years, including the two years I plowed over it.

Q. 29. State how near to this well in question you have lived from 1863 to the present time and for what years you have occupied the farm on which the well is located.

A. I lived on the farm from 1863 for four years; then I lived about a mile from the well for one year; then for the next year I lived near by this well on another farm; afterwards I lived about a mile from it, and for the last six years I have occupied the 1650 farm on which the well is; I have lived within a mile of the well since 1863, except one year.

Q. 30. State how long ago that freshet that commenced filling up the well occurred.

A. It was either in 1864 or 1865.

Q. 31. What time in the season did it occur?

A. It was in the spring.

Q. 32. State whether the ground where this well is is on an even level with the land immediately about it on the Preble flats, or, if not, whether it is on higher or lower ground.

A. It is in a hollow place, which extends from about two miles above, at the foot of the hill, to Green Lake, which is about a hundred rods south of the well.

Q. 33. At the time of this freshet do you know how the land immediately about the mouth of this well was, whether freshly plowed or not? In answering also state the character of the freshet.

A. It was plowed the spring before the freshet; the freshet was the heaviest freshet I ever saw and lasted the longest; the water covered the well all over, and the low land was all covered with water; the field about this well for several acres had been plowed the spring before and might have been plowed in the fall before, but I think not.

Q. 34. State what you remember to have noticed at the time and after the freshet had abated, if anything, as to the soil having been washed away from the land above and about the well.

A. Well, I remember it had washed the land very much; even the stones—the cobble-stones—it had washed them into heaps, and even the flood wood, some had been washed down.

Q. 35. How deep was this well from the surface down; was this well made?

A. Thirteen or fourteen feet.

Q. 36. Was it stoned up from the bottom?

A. Yes, sir.

Q. 37. Was you ever to it and obtain water from it for yourself before this freshet spoken of?

A. Yes, sir; I had taken water from it before the freshet.

1651 Q. 38. State whether this well has recently been reopened down to its bottom; if so, state what you know about its being so reopened and when it was.

A. It has been recently reopened; it must be about five or six weeks ago that Mr. Parsons, one of the complainants, came up there to have it reopened; Mr. Parsons came to me and wanted to know where that well was; I told him I guessed I could show him within a foot or two of where it was, and I did so. He said he wanted to open it; he had two men with him, and they went to work. I then went away—went to my work. In the course of an hour I went across to the well; they were cleaning it out; that evening I went to the well again; they were there and had just discovered water at the bottom of the hole they made with a crowbar; they had cleaned out a good deal of the stone and dirt, but they hadn't got it all out; they left it that evening and went home.

Adjourned to 9 o'clock a. m., September 23d, 1880.

9 O'CLOCK A. M., 23D.

Parties appear, pursuant to adjournment, same as before.

Examination of THOMAS BALLARD resumed by Mr. GOODRICH:

Q. 39. Had you any acquaintance with any of the parties to this suit at the time Mr. Parsons came to you to have you point out where this well was, and up to that time had you any acquaintance with him, Mr. Parsons?

A. No, sir.

Q. 40. Had you then or have you now any connection with this driven well controversy other than as a witness called by the complainants to the facts you are here testifying to?

1652 A. No, sir.

Q. 41. Are you the same Mr. Ballard that was called by the complainants and gave testimony in this case before the notary, Frederick Hatch, some days ago here in Cortland?

A. Yes, sir; I am.

Q. 42. On the day when Mr. Parsons and the two men commenced cleaning out the well, did you see when you came back to the well that day any form of ladder which lay at the top of the well and which apparently had been taken out of it?

A. Yes, sir.

Q. 43. Describe what the appearance was, showing it had just been taken out of the well.

A. It was wet and dirty.

Q. 44. Please describe this ladder.

A. Well, it was a board about three inches wide, with slats nailed on it for steps, extending nearly half the way down; the ladder and steps had an old, decayed appearance, as though it had been in the ground a good many years.

Q. 45. Is this same ladder now before you in the notary's presence?

A. Yes, sir.

Q. 46. Please describe any difference in appearance in the board from what appears the bottom up to the top in respect to decay.

A. The board is 12 feet 4 inches long; about 15 inches from the bottom up it is quite sound; above that, for about 5 feet, it appears to have been in water a part of the time and presents a cracked appearance; then for the rest of the way up the board is more rotten and hasn't this cracked appearance.

Q. 47. What number of slats are nailed on the board from the top?

A. Four.

Q. 48. Now, Mr. Ballard, what have you known during these seventeen years you have been acquainted with this well as to the variation in the height of water in it in different seasons of the same year?

1653 A. When I was first acquainted with it there was plenty of water in it; I know now it is very low—very low in it; I have never observed the difference in the height of water in the well at different seasons of the year.

Q. 49. At the house on this Wm. E. Tallman's farm in which you lived was there, and is there now, a dug and stoned well; if so, how far is that well from the well in question, and is it upon higher or lower ground, and how does the water vary in that well at the house in different seasons of the same year?

A. There was and there is now; it is from the well in question, I should think, about 60 rods northwesterly; it is upon higher ground—I should think from 18 to 20 feet higher—than at the one in question; the well at the house is about 28 feet deep; the variation in the depth of water in that well at the house is from 2 to 10 feet in different seasons of the same year; in dry seasons it is most dry—it is so now.

Q. 50. State now what you had to do in cleaning out this well in question—down to its bottom, and when you did it, with reference to the time when Parsons commenced cleaning it out, and by whose request did you clean it out to the bottom and who assisted you in doing so?

A. Well, a day or two after Parsons and the two men commenced cleaning it out Parsons came to me and wanted me to clean out that well to the bottom; he said he had hired a man to do it and he hadn't done it; he asked me if I would do it. I told him I would; my hired man, Mr. James B. Share, and myself cleaned it out down to the bottom; we commenced to do it the next day after Mr. Parsons asked me to do it—in the afternoon; we worked by spells on three different days; did not work all the time.

Q. 51. How did you find the bottom of the well with reference to the stoned walls of the well; also with reference to the soil and its compactness at the bottom of the well?

1654 A. Well, the stone wall of the well—the bottom for about two feet up from the bottom—is made of flat stone, and the remainder upwards is made of cobbles; I found the bottom of the well to be of very hard, compact gravel.

Q. 52. State how you ascertained the bottom was such as you describe it to be.

A. By the use of a small crowbar; by striking it down on to the bottom, I found it was very had; I tried to get up the gravel to see if I had got to the bottom of the well, and found I had; it had never been dug any deeper.

Q. 53. State now whether the walls of the well came fully down to this gravelly bottom or not?

A. Yes, sir; they did.

Q. 54. What was the width or diameter of the well at the bottom, and so along up to the top?

A. The diameter at the bottom was most two feet; along up it was larger; a few inches to the top it was about two feet.

Q. 55. Was you requested by Mr. Parsons, and did you examine the bottom of the well to see whether there was any soft place or puncture in the bottom? If so, state how you did it and what you found in this respect.

A. Well, he wanted me to find the bottom of the well; he wanted me to examine it thoroughly, to know if I had found the bottom of the well; I examined with a crowbar by striking it down, and with my hands; I stuck the crowbar down all over the bottom of the well and felt all over it with my hands; I found no soft place or puncture, nothing of the kind in it.

Q. 56. Now state, Mr. Ballard, how you and your hired man proceeded in cleaning out what remained in the well down to the bottom, and what were the means you used?

A. We had a pail and a rope; the rope was lengthened out with a leather strap; we drew the dirt and stones up in this pail; I was at the bottom and Mr. Share was at the top; I had a crowbar and a short-handled fire-shovel; I used the bar to loosen up the gravel and dirt, and the shovel to take it up with.

1655 Q. 57. What depth of dirt, stone, etc., did you remove from the well before reaching the bottom?

A. About three feet.

Adjourned to 2 o'clock p. m.

2 O'CLOCK P. M.

Parties appear, pursuant to adjournment, same as before.

Q. 58. When you commenced cleaning out the well from near the bottom, as you state, who were present, and who entered the well first, you or your hired man, Mr. Share, and how was the entry made?

A. There was no one present but me and my hired man; I went down in the well first by climbing down on the wall of the well;

I don't know that my hired man went down into the well at all during the cleaning out of the well.

Q. 59. State now, Mr. Ballard, how you found the dirt, etc., that was there remaining in the well, whether it was compacted as though it had lain there for considerable time, or whether it was loose, as though lately put in there?

A. It was compact, as though it had lain there a number of years.

Q. 60. Was there any water standing above the dirt when you first commenced your cleaning out?

A. No, sir; not any of any consequence; but it was wet.

Q. 61. What did you have to do, if anything, before shoveling the earth there into the pail?

A. I had to work it up with the bar, and then shovel it up into the pail.

Q. 62. How far did you go down before the water began to appear above the dirt that remained below?

A. I should think about eighteen or twenty inches.

1656 Q. 63. Did you find any articles toward the bottom of the well as you proceeded in your cleaning out?

A. Yes, sir.

Q. 64. What articles?

A. I found a copper strainer first, in shape like one going onto a sprinkling-pot; then I found a sheet-iron tube—it was a foot high and about fifteen or sixteen inches across; there was a leather string tied about the neck of the strainer; both the string and strainer had an old appearance; the strainer was corroded; the iron tube was rusty and in places eaten through and out with rust.

Q. 65. Where was the sheet-iron tube or cylinder found and how was it standing in the well?

A. I found the sheet-iron tube or cylinder standing on the bottom of the well, about in the centre of the well.

Q. 66. Where was the strainer found with reference to the cylinder or tube?

A. I found the copper strainer just above the sheet-iron tube, on the south side.

Q. 67. And how far below the surface of the dirt you first took out of the well?

A. About two feet.

Q. 68. I now place before you the copper strainer and a section of sheet-iron tube or cylinder and ask you to say whether or not these are the same articles you found at the bottom of the well.

A. Yes, sir; they are.

Q. 69. Are they in the same condition now that they were when you found them?

A. Yes, sir; they are, only they were wet and had no paper on as they have now.

Q 70. I call your attention to the cylinder and ask you whether one end of it is more eaten out by rust than the other; and, if so, state which end was down as you found it in the well.

A. One end is eat out more with the rust than the other, and to my best knowledge that is the end that stood down.

Q. 71. Did you take out and send up from the well this sheet-iron tube before or after you had sent the earth up or got it loosened from within and about it?

1657 A. I loosened the earth around it with my bar and then stooped down and pulled it up with my hands before I got the dirt out from within it.

Q. 72. How did it come up, whether easily or otherwise?

A. It came up quite hard.

Q. 73. How far above the cylinder was the copper strainer found in the well? And state whether that was also imbedded in the dirt.

A. Just above, imbedded in the dirt; the copper strainer was about full of dirt.

Q. 74. How was the dirt, etc., which surrounded and imbedded the strainer and cylinder at the point where they were found, as compared with the soil around about the well at the surface, in point of character or kind?

A. It was, or looked like, washed dirt, resembling dirt around about the well at the surface.

Q. 75. Was there anybody present at the top of the well other than your hired man when this cylinder was sent up, do you know?

A. Yes, sir; there was; Mrs. Share was there, the hired man's wife.

Q. 76. I now present you with a photograph of this copper strainer and this sheet-iron tube or cylinder on one sheet or card and ask you to say whether the strainer and cylinder are correctly represented in miniature in such photograph.

A. They are correct representations; the cylinder is represented as standing with the other end up from which I found it.

Q. 77. Were these articles presented to you, and were they marked for identification in evidence, by statements on paper attached to each, upon your examination by the notary, Hatch?

A. No, sir, they were not; they were presented to me there and I testified concerning them; a statement was there made on the record, to be attached to the articles, but the papers were not put on in my presence, as now appears.

1658 Complainants' counsel presents to the notary the said original strainer and cylinder to be marked for identification in evidence, and the notary does so by stating that they are the same articles which he has already marked for that purpose, as appears at pages 28 and 29 of the accompanying testimony of James B. Share.

Adjourned to 9 o'clock a. m., September 24th, 1880.

SEPT. 24, 1880—9 o'clock a. m.

Parties appear, pursuant to adjournment, same as before.

Complainants' counsel, by consent and request of defendant's counsel, retains before the notary the original articles for the purposes of further proof on the part of defendant and complainants, and puts in the photographs of the same, which the witness has testified to, now marked by the notary "Complainants' Exhibit F, H. J. M."

Examination of witness resumed:

Q. 78. Complainants' counsel now present the perforated iron pipe, with the copper strainer annexed or put onto the perforated end thereof, and asks the notary to mark for identification such perforated iron pipe as "Complainants' Exhibit D No. 1, H. J. M.;" to which Mr. Palmer, of counsel for defendant, consents, and the same is so marked by the notary, it being expressly stipulated by counsel that said perforated pipe, as well as the strainer annexed thereto, shall be retained before the notary in aid of the further proofs here to be made by either party, defendant's counsel assuring that the pipe shall be produced before the court, if the defendant may be able to do so. Whereupon the complainants' counsel here gives in evidence a photograph of the pipe and strainer annexed, conceded to be a correct representation thereof, and which is here by the notary marked "Complainants' Exhibit D No. 2, H. J. M.," and herewith returned to the court, it being conceded that such perforated iron pipe is the same testified to by Moses T. Tallman in his testimony taken in this and the other causes stipulated to abide the same
1659 result, Mr. Palmer, however, not conceding there is any fitness
or any appropriate connection between the pipe and the strainer.

Complainants, continuing, ask the witness whether he has placed this copper strainer (the same that he found in the well) on the perforated end of this iron pipe; and, if so, how the one fits onto the other.

A. Yes, sir; I have placed the strainer onto the perforated end of the iron pipe, and it is a very good fit. It is a good, snug fit. It would not readily drop off.

Q. 79. Does it fit onto that end of the pipe as readily and snugly in all ways, or do you find that it fits on better in one way than other ways?

A. There is one way that it fits the best.

Q. 80. Please examine the perforated end of the pipe and see whether there is a slit for a lap cut in it, and state whether the lower or perforated end is apparently hammered down to be smaller than the other end.

A. There is a slit cut in the perforated end, and a lap, and apparently hammered down to make it smaller.

Q. 81. Have you tried to see whether the neck of the strainer will possibly go onto the other end of the pipe which is not perforated; and, if so, with what result?

A. I have tried it; it won't go on.

Q. 82. I ask you to measure and to state what the diameter of this (the non-perforated) end of this pipe is.

A. The outside diameter is almost one inch and three-quarters. The diameter of the orifice is one inch and a quarter, or a trifle more.

Q. 83. What is the orifice of the neck of the copper strainer? Please measure and state.

A. It is nearly one inch and three-quarters. There is a little irregularity, but my measurement has been all around.

Q. 84. When you put the strainer on the perforated end, for what distance on the pipe does the strainer go on?

A. Nearly an inch and a half; it could be crowded on a little further.

Q. 85. Is the orifice of the pipe at the perforated end partially closed? If so, state what portion of the orifice is left at that end still open.

1660 A. The orifice is partly closed; I should think about one-third left open.

Q. 86. Returning, now, to this well that you assisted in opening, state whether, after taking out the dirt, etc., as you have stated you and your hired man did, down to the bottom of the well, whether by request of complainants, you attended with others again to examine the condition of things at the bottom of the well; and, if so, how long after you had finished cleaning it out and what other persons attended with you.

A. I was requested by complainants to go and examine the bottom of the well. It might be a week or ten days after I had cleaned it out. There were two of the complainants, Mr. Andrews and Mr. Parsons; also Mr. Eben Daley, and Mr. John L. Haviland, and Mr. Thomas J. Getman, and —— Share, my hired man, and Mr. Matthias Van Hoesen.

Q. 87. Did you at that time go down into the well yourself and examine the condition of things there? And state whether the water was all pumped out of the well to enable you and others to do so.

A. Yes, sir; I went down in the well and examined it; the water was nearly all pumped out. Mr. Daley also went down, and Mr. Getman and Mr. Parsons.

Adjourned to 2 o'clock p. m.

2 O'CLOCK P. M.

Parties appear, pursuant to adjournment, same as before.

Q. 88. Had you previously and upon cleaning the well out down to the bottom, as you say you did, measured the depth of water in it; if so, what was its depth?

A. Yes, sir; I measured it and found the depth of the water was 15 inches.

Q. 89. On the occasion when, as you say, you re-examined the bottom of the well when Daley and the other persons named were present, and when, as you say, the water was nearly all

1661 pumped out, did any one or ones work a puncture or punctures down into the gravelly bottom of the well. If so, state how and by whom the same was done.

A. Yes, sir; Mr. Daley worked a hole down into the bottom of the well with a crowbar; it was near the centre of the bottom of the well; he worked it down about 9 or 10 inches, he told me when he came up; he showed me on the bar when he came up how far he got it down; he showed it to all that were present; he said he worked it down by pressing the bar down and working it each way and around; when he came up he told me where the hole was that he had made; I then went down and found it there; I took the bar and made a hole on one side of the centre of the bottom, as he did, and worked it down in the same way; I worked it down about 6 or 8 inches, and could have gone further if I had tried; I didn't think he could do it in this way; I made the hole to see if I could do it; a hole could be made by driving, without this wriggling motion, by using a bar and sledge; it couldn't be done by driving within the well, for there wasn't room there to be in the well to drive.

Q. 90. State whether there was room in the well for more than one person of ordinary size to be at the same time and do any driving.

A. There might be room for two ordinary persons to stand upright but not to do any work.

Q. 91. State whether there was room in the well for any one person to use a maul, or beetle, or sledge in driving any pipe down into the bottom of the well, he being within the well.

A. No, sir; there was not.

Q. 92. What kind of pump, as to its capacity, was used on this occasion referred to for pumping out the water?

A. It was a large galvanized iron pump that worked with a
1662 plunger; it was worked by two men; the size was about 4
inches; I mean this was the size of the orifice of the tube that
went down to the water in pumping.

Q. 93. When you went down into the well on this occasion referred to could you and did you see, when the water was pumped out, from which side of the well the water came that replenished it? If so, state.

A. Yes, sir; I could see it come in on the north side.

Q. 94. Did any come in from any other side or up from the bottom of the well?

A. There might be some come in from the west side, but I did not discover any coming up from the bottom.

Q. 95. Did any come up through the holes made by you and Daley in the bottom?

A. No, sir; I didn't see any.

Q. 96. As to the water you saw coming in from the north side of the well, for how high up from the bottom did that come in—for how high up through the walls of the well did that come in?

A. It came in from the bottom, about 4 or 5 inches up, and came in through the wall.

Q. 97. How rapidly? State how long it would take for it to fill up the well to 15 inches in depth, as you think.

A. It came in quite rapid; I should think it would take from 10 to 15 minutes to fill it up to 15 inches in depth.

Q. 98. State, Mr. Ballard, whether you was requested by complainants' counsel, in the presence of the notary & defendant's counsel, at the close of your examination here last evening, upon your return home, to measure the water in this well, so as to be able to state the exact depth of water as it is in that well now, and say whether you did so this morning, and what the depth of water there is.

A. I was so requested and I did so, and measured it this morning and found about 8 inches of water in the well; it would average about 8 inches all over the bottom of the well. I went down into the well and made my measurement on a ladder, which I left in the well.

1663 Q. 99. You have spoken of a dug and stoned well at the house on this William E. Tallman's farm about 60 rods northwesterly from this well in question; state now whether such house well is upon the Preble flats, and whether upon higher or lower ground than this well in question, and state, further, what amount of water there is now in that house well.

A. It is on the Preble flats and upon higher ground, 18 or 20 feet or more higher than the well in question; the house well is 28 feet deep; that well is now dry; you can't get any water.

Q. 100. How was it as to being dry when, upon cleaning out this well in question, you found, as you say, about 15 inches of water in the latter well some 5 or 6 weeks ago?

A. Then we had water sufficient for use in that well at the house.

Q. 101. State the inclination of the Preble flats—which way they incline, and how wide the flats are, and whether they are surrounded by a line of hills on each side.

A. The flats incline to the south down to Cortland and thence to Binghamton, as I understand; their width is from a mile to a mile and a half; there is a line of high hills on each side.

Q. 102. On which side of the river running through the valley is this well in question, also the house well spoken of, and how far distant is each from the river?

A. They are both on the west side of the river; the well at the house is nearly a mile from the river; the other is about 60 rods nearer the river.

Q. 103. Southerly from this well in question is there a little lake known as Green Lake; and, if so, about how large is it, and how far distant from this well, and what is the descent from the well at the surface to the lake.

A. There is a little lake called Green Lake; it is about 100 rods southerly from the well; the descent from the well to the lake is, in my opinion, from 14 to 15 feet at least, and may be more; I
1664 should think the lake covers about 25 acres of land; it is very deep in the middle and in places.

Q. 104. Has it any surface inlet or outlet?

A. It has a surface outlet, but no inlet; it is fed by springs.

Q. 105. Where does its outlet empty, and on which side of the lake is it?

A. It empties into a lake called Little York Lake, on the south side of this lake. The Little York Lake empties into the river and makes a part of it.

Q. 106. Have you ever known the water in the wells on Preble flats as low as they are now during your 18 years' residence there?

A. I never knew the water in my well at the house (being the house well which I have spoken of, and being the house Mr. Share lives in) as low as it is now. As to other wells, I can't speak.

Q. 107. How long have you known the irons of the windmill you have testified about to be lying upon the ground near this well in question?

A. I couldn't tell exactly; some 8 or 10 years. They were taken away the latter part of this season.

Q. 108. Are those irons or a portion of them now here present before the notary while you are testifying, the greater portion of them?

A. They are; they are the same irons.

Direct examination closed at 4 o'clock and 45 minutes p. m.

Cross-examination by Mr. PALMER, counsel for defendant:

X Q. 1. Was Mr. William E. Tallman in his lifetime and is Moses T. Tallman prominent as citizens of the town of Preble?

A. They are somewhat, as he says.

X Q. 2. Did Mr. William E. Tallman possess any inventive turn of mind?

A. Yes, sir.

X Q. 3. Do you now recall any machinery, appliance, or device invented or made by him while he resided in Preble? State briefly what you know on this subject.

1665 A. I don't know whether he invented it or not.

X Q. 4. What do you refer to as not knowing whether he invented it or not?

A. I refer to these windmill irons that lay there.

X Q. 5. Did you know or have you heard Mr. Tallman arranged to conduct flowing water into the various rooms of the house in which he resided in Preble?

A. I never knew as he did and I never heard as he did. I know there isn't any there now.

X Q. 6. Do you know or have you heard that Mr. William E. Tallman constructed machinery whereby he did the churning, sawed the wood, and did various other mechanical work by means of the power afforded by the water wheel at the grist-mill on his premises, so that the same could be managed and controlled by a person at his house?

A. I never knew anything about it, only that he thrashed his grain with machinery. He thrashed his grain by the water wheel at the grist-mill by a shaft running from the water wheel to the barn.

X Q. 7. Did you know that he also carried the straw by machinery operated by the same power?

A. No, sir; I never saw it.

X Q. 8. Did you know of his having arranged so as to use the water power furnished by the stream by which the water wheel of the grist-mill was applied, so as to use the same water twice over, and thereby exercise the power applied in operating the machinery of his grist-mill?

A. I knew he had a shaft that run from his grist-mill down to a small dam below, where Mr. Moses T. Tallman did his thrashing

X Q. 9. Did you know that he constructed a reservoir or 1666 receptacle for water near the well in question, into which water was pumped from the well by power supplied by the windmill you have heretofore mentioned?

A. I know there was a reservoir there or receptacle; that is all I know.

X Q. 10. Did you know that water was conducted from this reservoir or receptacle, through a pipe or pipes, to a trough or troughs into the field adjoining that in which the well is located, and that by an automatic arrangement valves were opened when the trough was emptied and closed when it was full, and that these appliances were constructed by or under the direction of William E. Tallman?

A. I know the reservoir or receptacle was made of stone and water-lime and sand, forming a cemented wall for the reservoir; that is all I know about it.

X Q. 11. Was this reservoir or receptacle constructed before you saw the well in question?

A. I don't know when it was constructed.

X Q. 12. Was it there when you first visited this well; if so, in what condition was it with reference to being in use and in repair?

A. It was there and useless and out of repair, I should think, when I first visited the well.

Adjourned to 9 o'clock a. m., Sept. 25th, 1880.

September 25—9 o'clock a. m.

Parties appear, pursuant to adjournment, same as before.

X Q. 13. In what year did you first see the Tallman well in question?

A. In the year 1863.

X Q. 14. State the circumstances under which you first saw it—I mean what led you to see it at that time?

A. The windmill was the object that I went to see.

X Q. 15. Did you examine the windmill on that occasion? Please describe what you did and what you observed about the windmill on that occasion.

1667 A. I did not examine it; I merely went to see it; I noticed, though, one of the wings or fans was blown off, and it wasn't in use; on that occasion it didn't pump.

X Q. 16. Did you climb up on the frames where the windmill was, or only observe it from the ground?

A. I only observed it from the ground.

X Q. 17. Please describe the frame which supported the windmill.

A. Well, I should think the upright timbers were from four to six inches, or six to eight inches; I couldn't tell; my idea is they were from six to eight inches, and somewhere from 16 to 20 feet in length or height; they were braced, according to my best recollection; there were two upright parts or timbers.

X Q. 18. How were these upright parts or timbers braced or held in position?

A. I should think, from my best recollection, there were two sills at the bottom, and they were mortised in and braced.

X Q. 19. Were there no more than two sills; if so, how were these held together and prevented from spreading?

A. I couldn't tell whether those two sills were bedded in the ground, or whether there were cross-sills or not.

X Q. 20. Do you remember whether or not those two sills you have mentioned were supported by an underpinning wall or foundation of any kind?

A. I do not remember.

X Q. 21. Those sills would have decayed rapidly if imbedded in the ground or left to rest upon it, would they not?

A. They would have decayed some in time.

X Q. 22. Of what kind of wood were these sills and the frames of the windmill made?

A. I do not know what kind of wood they were made of.

X Q. 23. Is there not a portion of the frames of this windmill now in the field near the well, and were not all the timbers which composed this frame recently lying in this field or an adjoining field; I mean within a few years?

A. There is a portion of it lying around in the field or fields, and have been lying there ever since they blew down or rotted down.

1668 X Q. 24. Have you not seen those portions of the frame of this windmill frequently during the last ten years, and have you never observed the same sufficiently to know of what kind of wood they were made?

A. I have seen them frequently within the last ten years, but have not observed to know of what kind of wood they were made.

X Q. 25. When were you next at this well?

A. Oh, I was there frequently.

X Q. 26. Are you able to state when you were next at this well?

A. I couldn't tell the day I was there; I was there frequently.

X Q. 27. Can you tell the season of the year when you first visited this well? If so, state what season of the year it was.

A. Yes, sir; it was in the spring.

X Q. 28. Give the month, if you are able.

A. I think it was either in the month of April or May.

X Q. 29. Was your first visit at this well one of curiosity merely?

A. Yes, sir; it was merely curiosity.

X Q. 30. Did you observe any pump connected with the windmill on the occason of your visit? If so, please describe it.

A. Well, I have a slight recollection of seeing a hand pump.

X Q. 31. Did you see any pump connected with this windmill is the question.

A. I think there was a rod or pipe coming up out of the well, but I couldn't describe any pump.

X Q. 32. Describe the location and arrangement of the rod or pipe that you saw coming up out of the well, as you say.

A. I should think it was on the east side of the well; I couldn't tell as it was attached to anything; I have but a slight recollection of it.

X Q. 33. Was the hand pump you have mentioned in any way connected with the windmill? Please describe this hand pump.

1669 A. I think it stood on a part of the frame; I think it was a little iron pump.

X Q. 34. Was it so attached to the windmill as to be operated by it?

A. I don't know; I should think not.

X Q. 35. Did you use this hand pump, or have you seen it used?

A. No, sir; I did not use it, and have never seen it used.

X Q. 36. Then, you do not know whether water could be obtained by means of this pump or not from the well?

A. I suppose it could be obtained from this well, but I never used it or saw it used.

X Q. 37. What leads you to suppose water could be obtained from this well by means of this pump if you never used it or saw it used? My question calls for what you know about it, not what you supposed.

A. I have but a slight recollection of the pump. We used pumps for pumping water, and I supposed that was used for that purpose.

X Q. 38. Was the opening of this well covered or otherwise? If covered, how was it covered?

A. It was not covered; I don't know as I ever saw it covered all over; I might have seen a plank laid across it.

X Q. 39. Was there any curb or railing about it to prevent animals or things from falling into it?

A. I never saw any.

X Q. 40. Did you look into the well on the occasion of your first visit to it?

A. Yes, sir; I looked in and saw the water.

X Q. 41. Did you see anything else in the well? If so, state what else you saw in there.

A. I saw nothing more than what I have stated.

X Q. 42. Do you mean by your last answer you saw nothing in the well but water?

A. I saw nothing but water and the pipe or rod that was coming up out of the well.

X Q. 43. Which was it, a pipe or rod, you saw coming up out of the well? Give your best recollection in relation thereto.

1670 A. I did not examine it and I could not tell which it was.

X Q. 44. Of what material was it?

A. I couldn't tell exactly; I should think it was iron.

X Q. 45. Did the rod or pipe remain there in the well in the position in which you first saw it for any period of time after you first saw it? If so, state about how long it so remained and whether or not you saw the same on any subsequent occasion; and, if so, about how many times you subsequently saw it.

A. I do not know how long it remained there. I know it was not there six years ago. I might have seen it two or three or half a dozen times after I first saw it. I couldn't tell how many times I saw it, it was so long ago.

X Q. 46. Do you now recollect distinctly to have seen this rod or pipe on any occasion subsequent to your first visit to the well, as you have stated?

A. No, sir; yes, sir; I might have seen it one, two, or three times, or half a dozen times after my first visit.

X Q. 47. Will you swear positively you saw this pipe or rod coming up out of this well on more than one occasion? Please give this question an affirmative or negative answer.

A. I have a slight recollection of seeing it more than once.

X Q. 48. How far from the surface of the ground was the surface of the water in the well at the time of your first visit to it? Approximate as near as you are able.

A. I should think about ten feet.

X Q. 49. Are you positive that nothing was in sight within the well at the time you first looked into it but water?

A. I think there was nothing but water in sight. I think there was nothing but water.

X Q. 50. Will you be positive as to whether or not there was anything in sight within the well but water?

A. I think there was nothing but water; there might have been this pipe or rod sticking up, out.

X Q. 51. I have now twice asked you whether or not you would
swear positively that anything was in sight within the well
1671 but the water contained therein? Please answer affirmatively or negatively whether or not you will swear positively that anything was in sight within this well besides the water.

A. I have such a slight recollection that if I have got to swear positively I shall swear there was a pipe or rod within the well besides the water.

X Q. 52. Had you looked into this well on any occasion after the first one mentioned by you and before the same was wholly or partially filled up?

A. Yes, sir.

X Q. 53. About how many times?

A. I couldn't tell; it might be two or three or half a dozen times.

X Q. 54. On either of the occasions when you looked into this well after the first one testified to, did you see anything in the well besides water?

A. I have a slight recollection of seeing the pipe or rod besides water.

X Q. 55. Is it your present recollection that you observed on each of the occasions when you looked into this well, as you say, substantially the same objects and in the same position?

A. Yes, sir.

X Q. 56. At what season of the year did you look into this well after the first occasion testified to by you?

A. Oh, I couldn't tell exactly; almost any time during the season that I lived there.

X Q. 57. Did you ever look into the well in the winter season?

A. I don't know as I did. I might have.

X Q. 58. Do you recollect now any occasion when you looked into this well during the winter season?

A. I don't remember as I have, but still I might; it was on my way to my work.

X Q. 59. Do you recollect distinctly any occasion when you looked into this well during the summer season?

A. Yes, sir; when I had occasion to go for water.

X Q. 60. When was that?

A. When I lived at the house on this farm where Share now lives.

X Q. 61. In what month was it?

1672 A. I could not tell.

X Q. 62. Will you swear postively you had ever looked into this well in the month of September in any year before the same was partly or wholly filled up?

A. No, sir; I won't swear to that; I couldn't tell what month.

Adjourned to 2 o'clock p. m.

Two o'clock p. m.—Parties appear, pursuant to adjournment, same as before.

X Q. 63. How did you obtain water from this well, when you got water therefrom, as you say you did?

A. By a line or rope; I used a pail on the line or rope.

X Q. 64. How many times did you procure water from this well in that way before it was filled up?

A. I couldn't tell exactly; maybe two, three, or four times.

X Q. 65. What use did you make of the water thus procured from this well?

A. I was for drinking purposes at the house.

X Q. 66. What was the occasion of your thus taking water from this well; had you no well at the house?

A. I had a well at the house, but the pump was out of repair, I believe.

X Q. 67. Where did you obtain the water used at the house at the time for other than drinking purposes?

A. From the roof of the house.

X Q. 68. Had you a cistern at the house?

A. No, sir.

X Q. 69. Was there more than one occasion when you procured water at this well for use at the house in consequence of the pump in the well at the house being out of repair, as you say; I mean, was there more than one occasion when the pump at the house was out of repair so that you resorted to this well for water?

A. I don't remember only one occasion.

X Q. 69. When was that?

A. Well, it was so long ago I couldn't tell what year it was in.

1673 X Q. 70. Did you get water from any other source than from the roof and this well at this time?

A. No, sir; I don't remember of getting it anywhere else.

X Q. 71. Had you no neighbors who had wells more or less accessible than this well in the field?

A. I had none any nearer than the well in the field.

X Q. 72. Who was then your nearest neighbor, and where did he live with reference to your house at that time?

A. Well, there were two, Mr. Cyrus Harris and Mr. Callin, living about equal distance from my house; one lived in a northerly direction and the other south; Mr. Harris lived northerly and the other south.

X Q. 73. About what was the distance from your house to the houses of these neighbors, and how far did Mr. Harris live from Mr. Callin?

A. I should think about 60 or 70 rods from my house, and they lived 130 to 140 rods apart.

X Q. 74. Did these gentlemen and yourself live upon the same highway?

A. Not exactly; Mr. Callin lived on the cross-road, near the corner with the north and south road.

X Q. 75. Where do you now live with reference to the house where you then lived, and what is the distance between the two?

A. I am living now on the east side of the valley, about a mile distant from where I then lived.

X Q. 76. When did you last live in the house where Share now lives, which is the one where you then lived?

A. In 1866.

X Q. 77. Did you ever procure water from the well in question after 1866 and before it was filled up?

A. No, sir.

X Q. 78. What season of the year was it when you obtained water from this well, as you have testified?

A. I think it was in the summer season; I couldn't tell exactly the time.

X Q. 79. Will you swear positively it was in the summer season?

1674 A. Yes, sir; I believe it was.

X Q. 80. How long was it before you moved from the house where Share now lives? Approximate as near as you are able.

A. I couldn't tell what year it was in, nor in which of the four years that I lived in that house it was.

X Q. 81. When did you first see this ladder here or strip of board with four cleats nailed on it, to which your attention was called on your direct examination before this notary?

A. I should think about five or six weeks ago.

X Q. 82. When was it with reference to the time when the well in question was reopened and cleaned out?

A. It was the first day, at night, when Mr. Parsons and two men came to clean it out.

X Q. 83. Was this ladder in the well at any time when you looked into it before it was filled up?

A. I never observed it.

X Q. 84. Will you swear that this ladder was not in the well in 1863 and remained there until the well was reopened recently?

A. No, sir; it might have been in the well in 1863, or it might have been put in afterwards.

X Q. 85. Does the appearance of this ladder indicate that it had been used in the well for descending and ascending into and from the well?

A. Yes, sir.

X Q. 86. What is its appearance in respect to age?

A. Why, it looks old.

X Q. 87. Do you not believe it to be highly probable that this ladder was in the well on each of the occasions when you looked into the well before it was filled up?

A. It might have been there, but I think it wasn't. I never used it or went down on it myself. I never was in the well until this season, after it was cleaned out.

X Q. 88. Was water ever procured from this well for the purpose of watering stock on this Tallman farm after you moved into the house where Share now lives?

A. No, sir.

X Q. 89. Was the windmill ever in operation and em-
1675 ployed in pumping water from this well after April, 1863?

A. No, sir.

X Q. 90. Where did you live just previous to your moving into the house where Share lives?

A. About a hundred yards from Preble depot. I should think it was over a mile from this well in question. It was in a northeasterly direction from the well and southwesterly from the depot.

X Q. 91. How long did you live at the place last mentioned?

A. I moved there in the spring and lived there until the next spring.

X Q. 92. Where did you live the year before, or in the year 1861?

A. I lived in Onondaga county.

X Q. 93. At what place in Onondaga county?

A. I lived at a house near the reservation; I think in the town of Onondaga.

X Q. 94. How long did you live at this place near the reservation, and where did you move from when you came there?

A. I lived there about a year. I moved from Onondaga Hill.

X Q. 95. How long did you live at Onondaga Hill?

A. Two years.

X Q. 96. Where did you live previous to your coming to Onondaga Hill?

A. I lived in Onondaga Valley, below.

X Q. 97. How long did you live in Onondaga Valley before going to Onondaga Hill?

A. Nearly two years.

X Q. 98. Where did you live previous to that?

A. In the city of Syracuse.

X Q. 99. How long did you live in the city of Syracuse?

A. I think about four years.

X Q. 100. Where did you live previous to that time?

A. At a place called Camillus.

X Q. 101. How long did you live there?

A. A part of the summer of 1853 or 1854.

1676 X Q. 102. Where did you live previous to that time?

A. Across the Atlantic, at a place called England.

X Q. 103. Did you come from England directly to the United States; and, if so, in what year?

A. I did; I don't know whether it was in 1853 or 1854, but I think it was in 1853; you may put it down in 1853.

X Q. 104. Where did Ezekiah Klock live while he lived in Preble?

A. He lived on the William E. Tallman farm, and he lived at Preble Corners.

X Q. 105. What house did he occupy while he lived on the Tallman farm?

A. He lived in the house with Mr. William E. Tallman, opposite Mr. Moses T. Tallman.

X Q. 106. When did Mr. Klock leave the Tallman farm, and where did he go after leaving the farm?

A. I think he left in 1869 and moved to Preble Corners.

X Q. 107. Did he have any hired men when he worked the Tallman farm? If so, give their names.

A. Yes, sir; he had hired men; he had a man by the name of William Maxon; I don't remember the others; he had more, but I don't remember who they were.

X Q. 108. Where does William Maxon now reside?

A. I don't know; he moved from Preble to Fabius, I think, some years ago.

X Q. 109. What year did Maxon work for Klock on the Tallman farm?

A. I think it was in 1863.

X Q. 110. Did the rod or pipe which you have described as coming out of this well extend down to the bottom of the well?

A. I should think it did.

X Q. 111. About what was its diameter?

A. I don't know; it was rather small; it might be an inch; I couldn't tell exactly.

X Q. 112. Did you ever know of this well in question being dry, or nearly so?

A. No, sir.

X Q. 113. Do you know who filled this well?

1677 A. I know there was a freshet that overflowed it and washed dirt into it.

X Q. 114. When was this freshet?

A. In one of the seasons that I lived where Mr. Share does now.

X Q. 115. Which one of the years, when you lived where Mr. Share does now, was the freshet? State, as near as you are able.

A. I kept no memorandum of it; and it was so many years ago, I can't tell which year.

X Q. 116. How do you know that dirt washed into the well by the freshet mentioned?

A. Because it was on my way to my work and I passed by it daily.

X Q. 117. Do you mean to swear that the cobble-stones thrown out of this well when it was recently reopened were washed into it by the freshet mentioned?

A. No, sir; I say the dirt washed into it.

X Q. 118. By whom were these cobble-stones put into this well?

A. I don't know; they were put in before I took possession, which was six years ago.

X Q. 119. When, with reference to the freshet you have mentioned, were these cobble-stones put into this well?

A. Some time after; I don't know how long after.

X Q. 120. The material of which this well was filled was composed mainly of cobble-stones, was it not?

A. I should think it was, by the appearance of them lying by the well now.

X Q. 121. Who occupied and worked this Tallman farm, on which this well is located, previous to the time when you took possession of it, six years ago, as you say?

A. Mr. Horace Hiscock a little while and Mr. Elijah Stanton before Mr. Hiscock; and then Mr. John Cline and Mr. Walter Cline before Mr. Stanton, and Mr. Ezekiah Klock previous to the Clines.

X Q. 122. How many times did you look into this well after the freshet you have mentioned?

A. I don't know exactly how many times I did look into it after the freshet.

X Q. 123. Was there any water in sight within the well when you looked into it after the freshet?

1678 A. Yes, sir; right after the freshet there was plenty of water in it, and it finally dried down so we could not see much water in it, but could always see some, owing to the dirt washing in to the bottom.

X Q. 124. At the time of the freshet was there any current of water immediately over the mouth of the well?

A. Yes, sir; there was; the water was over the well; the well is out of the sag of the land and a little higher and to one side of where the main current was.

X Q. 125. This well is situated on the west bank or side of a natural drain or depression running through the field where it is located, is it not?

A. Why, yes; it is situated on the west bank of this low land where the water runs in freshets; I should think about six or eight feet from the lowest point.

X Q. 126. Has the well ever been submerged by a freshet since you lived in Preble, except on that occasion?

A. Not to my knowledge.

X Q. 127. About how deep was the water over the mouth of this well, and how far westerly from it did the water extend at the time of this freshet?

A. I never measured the water over the well, but I should think it was from one to two feet deep, owing to the row of stones and a rail fence on them, from ten to twenty feet south of the well, which dammed the water back and overflowed the well and extended several rods westerly from it.

Adjourned to 10 and fifteen minutes o'clock, Monday, September 27th, 1880.

SEPTEMBER 27TH, 1880—10.15 o'clock a. m.

Parties appear pursuant to adjournment.

Irving H. Palmer, as counsel for defendant, as before, and N. J. Parsons, for complainants, in person.

X Q. 128. Was the reservoir on the knoll near this well submerged during this freshet?

A. Yes, sir; I think it was.

1679 X Q. 129. Was the reservoir then in ruins or did it remain standing?

A. Why, it remained standing; I believe it would hold water at that time.

X Q. 130. Do you know whether or not there were pipes leading from this reservoir to a trough in the field adjoining this one in which the well is located?

A. I know there was a pipe leading into the adjoining lot from the reservoir; I never saw any trough.

X Q. 131. When did you first see this pipe?

A. I should think about two years ago.

X Q. 132. What directed your attention to it at that time?

A. Nothing.

X Q. 133. Please describe this pipe, giving the material of which it was made, its diameter, the manner of its connection with the reservoir, and state where it now is, if you are able.

A. It was an iron pipe, about one inch and a quarter in diameter. I don't know how it was connected with the reservoir; when I first saw it it was sticking up out of the ground about an inch or two. I don't know where it is or what has become of it.

X Q. 134. When was it taken out of the ground and when and where did you last see it?

A. I took it out of the ground about a month ago or five weeks; it might be more; I couldn't tell. I saw it around there by the well a week or two afterwards.

X Q. 135. Have you no knowledge or information of where it now is, who took it away, or in whose possession it is or has been since you last saw it? If you have any such knowledge or information, please give it.

A. No, sir; I have not.

X Q. 136. Did you ever try to fit the neck of the copper strainer, in relation to which you have testified here, upon that pipe taken out of the ground as you have stated, or did you ever witness an attempt by any one to insert said pipe into the neck of said strainer?

A. No, sir; I never tried, nor never saw any one try to fit it on.

1680 X Q. 137. What other articles, if any, besides those you have heretofore mentioned, did you find within this well?

A. There was one other article which I found there, which was a grist-mill elevator cup, which I should think was made of zinc; I found no other articles there in the well, except the copper strainer and sheet-iron tube or cylinder.

X Q. 138. Where did you find the elevator cup with reference to the bottom of the well and the location of the copper strainer and sheet-iron tube or cylinder, as you found them in the well?

A. I found it just above the sheet-iron tube or cylinder, on the south side of the well.

X Q. 139. Where now is the elevator cup?

A. I don't know.

X Q. 140. What did you do with it?

A. I gave it to Mr. Parsons at the same time I gave him the strainer and sheet-iron tube or cylinder.

X Q. 141. Have you seen it since that time?

A. No, sir.

X Q. 142. When did you first see this windmill and the well in question?

A. I saw the windmill, I should think, in 1862—saw it at a distance; the well I first saw in 1863.

X Q. 143. Did you ever see the windmill in operation—I mean with the wings revolving?

A. Yes, sir; I have seen them revolve.

X Q. 144. When?

A. In 1862 and 1863.

X Q. 145. Was it connected with and operating a pump at that time?

A. I don't know.

X Q. 146. Did you ever see the pump which was operated by this windmill?

A. No, sir; I don't think I ever did.

X Q. 147. Where did the water which formed the freshet you have mentioned come from—I mean which direction—and what course did it follow?

A. It came from a northerly direction; it came from the same valley in which Bennett's Hollow is located; it went south and discharged into Green Lake.

1681 X Q. 148. Is there any stream in this valley which discharges into Green Lake?

A. No, sir.

X Q. 149. The rains which fall and the snow which melts on the hillsides sloping into this valley is absorbed in the gravelly soil of Preble flats, except in times of a freshet, are they not?

A. Yes, sir; to a great extent.

X Q. 150. And in times of a freshet the water discharges into Green Lake through the natural drain or depression which runs past this well down into this lake, does it not?

A. Yes, sir.

X Q. 151. About how large is the area thus drained?

A. Well, I couldn't tell. It may be six or seven hundred acres

I couldn't tell exactly where it starts from, but should think there were some six or seven hundred acres.

X Q. 152. The house where Mr. Share now lives is about how far from Mount Topping?

A. I should think about 80 or 90 rods.

X Q. 153. Are there any springs along the side or at the foot of this elevation on the side next to where Mr. Share now lives—I mean Mount Topping?

A. I don't know of only two; both are located a little north of Mount Topping; one supplies the Harris farm, the other supplies the Pelton farm. Both of these springs are in a northerly direction from where Mr. Share lives and towards Bennett's Hollow.

X Q. 154. About how far are each of these springs from Mr. Share's house?

A. One is about half a mile and the other is a little more.

X Q. 155. Is there a stream having its rise near Tully running past this Tallman farm on the east side and falling into Little York Lake, constituting the north branch of the Tioughnioga river?

A. Yes, sir.

X Q. 156. About how far is the stream from this well in question at the nearest point?

A. About three-quarters of a mile.

1682 X Q. 157. What is the surface and the nature of the soil between the river and this well?

A. It is a gravelly soil. The surface is nearly level.

X Q. 158. Is there a lake north of this well, towards Tully; if so, by what name is it called?

A. Yes; there are two little lakes; they are called Tully Lakes.

X Q. 159. Does this stream you have mentioned have its source in those lakes?

A. I think it does, but I don't know positively.

X Q. 160. How far are those lakes from this well in question?

A. I should think the nearest one was about three miles, the other a little further; that is all I know.

X Q. 161. What is the nature of the soil between those lakes and this well; what is the surface, and which way does it incline?

A. It is a gravelly soil. It inclines a little to the south—nearly level, but inclines a little to the south—from the little lake I first mentioned.

Adjourned to 2 o'clock p. m., 27th.

2 O'CLOCK P. M., 27TH.

Parties appear, pursuant to adjournment, same as before.

X Q. 162. The surface of the Tully Lakes is higher than the surface of the ground at this well in question, is it not?

A. I don't know; I should think they were.

X Q. 163. About what is the difference in the altitude between the surface of the ground at this well and the surface of the water in Green Lake?

A. I should think about 14 or 15 feet.

X Q. 164. Will you swear that it is not 25 feet or upwards?

A. No, sir; I will not.

X Q. 165. When did you first measure the depth of this well in question?

1683 A. Some few days after I finished cleaning it out.

X Q. 166. What month was that in?

A. In the month of September, 1880.

X Q. 167. What did you make the depth at that time?

A. Nearly fourteen feet from a little below the surface of the ground.

X Q. 168. What point did you measure to at or near the surface in making this measurement?

A. No particular point. I averaged it with the surface.

X Q. 169. How did you ascertain this average?

A. Oh, with my eyes, I suppose.

X Q. 170. The surface of the ground about this well is not even, is it?

A. No, sir; it is not.

X Q. 171. In measuring from the bottom of this well to the surface of the ground what part of the surface of the ground—which direction from the well—did you take for the average?

A. The east side.

X Q. 172. The materials removed from this well when it was recently reopened were piled on the east and south sides of the well so as to make it difficult to ascertain where the surface of the ground was on that side of the well, did it not?

A. The material was thrown on the east and south sides, but not so close to the well but what we could tell where the surface was.

X Q. 173. Does not the pile of earth and rubbish taken from the well and piled on the east side thereof slope from the top of the pile so that the bottom of the pile lies so near the edge of the wall of the well so that the least disturbance of this rubbish will cause portions of it to fall back into the well?

A. No, sir; it don't lay near enough so but what we can see the surface, and not near enough to rattle in.

X Q. 174. How far is it from the surface of the ground to the top of the wall of the well, as it now appears?

A. I have never measured it. I should think it is from a foot to fourteen inches.

X Q. 175. How deep was the earth over the mouth of this well before it was opened?

1684 A. I should think about six inches.

X Q. 176. It was deep enough so that you could plow over the mouth of the well without striking the wall with the plow, was it not?

A. Yes, sir; it was.

X Q. 177. How wide was the space between the bottom of the pile of earth and rubbish recently removed from the well to the edge of the mouth of the well?

A. I should think from three to five inches—I mean on the easterly side.

X Q. 178. Did you observe on the southeasterly side of the well a decayed timber, which had apparently been a sleeper, upon which a platform over the well or something of that kind may have rested?

A. Yes, sir; there is a small stick there.

X Q. 179. Of what kind of wood is that stick?

A. I don't know; I should judge it was some hard wood.

X Q. 180. Doesn't that stick appear to have rested upon the surface of the ground at the well as the surface appears to have been before this well was filled up and covered over with earth?

A. No, sir; it does not; I should think it never lay on the surface.

X Q. 181. Where does it lay, with reference to the surface?

A. I should think about six inches under the surface, as it now is.

X Q. 182. Where does it lie, with reference to the surface, as it appears to have been before the well was filled up and covered with earth?

A. I don't think it was ever nearer the surface than it is now.

X Q. 183. Why do you think it was never nearer the surface than it now is?

A. Why, because it is not big enough for a sleeper.

X Q. 184. Is that your only reason for this conclusion?

A. No, sir; 'tis because I don't think that the surface was any lower there than it is now; it being at the lowest spot around the well or nearly the lowest spot.

X Q. 185. The cultivation of this field would have a tendency to fill up the low places, would it not?

1685 A. Yes, sir; it would.

X Q. 186. How many years has this field been cultivated with plow and harrow since you knew it?

A. Five or six years at different times.

X Q. 187. How many years has it been thus cultivated since the well was filled up?

A. Two years since, one year being the year that I finished filling it up—I mean cultivated by plowing.

X Q. 188. In measuring from the bottom of the well to the surface how far above this stick you have mentioned did you measure?

A. I should think about six or seven inches.

X Q. 189. This stick has not been disturbed from its location since the well was opened, has it?

A. No, sir; not to my knowledge.

X Q. 190. Of what kind of wood is this strip of board with four cleats nailed onto it, forming a sort of ladder, taken from this well of which you have spoken?

A. I don't know; I should think it is elm.

X Q. 191. When you commenced to clean out the well how deep did you go before reaching water in it?

A. From eighteen to twenty inches.

X Q. 192. Do you mean by that it was eighteen or twenty inches from the surface of the material inside of the well and from where you commenced cleaning it out down to the water?

A. Yes, sir; I do.

X Q. 193. Did you measure it?

A. Yes, sir; I measured it.

X Q. 194. Do you remember what the exact measurement was?

A. No, sir; not the exact.

X Q. 195. Did you make any memorandum of the measurement made by you in respect to this well?

A. No, sir; only by the stone walls of the well.

X Q. 196. Did you mark upon the wall the point at which you commenced to clean out this well?

A. No, sir; I could tell by the dampness of the stone from where I commenced down to the water, being about one foot of cobble-stone and the remainder flat stone.

1686 X Q. 197. Do you mean, Mr. Ballard, that the wall of the well had dried out down to the point where you commenced to clean it out before you commenced to clean it out deeper and where you had cleaned it out down to water you could see by the moisture on the wall what depth of material you had removed before reaching water?

A. Yes, sir; being in very hot, dry, warm days when we were cleaning it out.

X Q. 198. Did you ascertain the depth of that material you removed from the well before coming to water by actual measurement of the moist portions of this wall?

A. I measured the cobble-stone, being one foot, and then when I got it all cleaned out I measured the flat stone, being two feet, making in all three feet down to the bottom of the wall from the point where I commenced to clean out the well.

X Q. 199. Did you measure the distance from the surface of the ground down to where you commenced to clean out the well; if so, what was the distance?

A. No, sir; I did not.

X Q. 200. When did you first measure the depth of water in the well after cleaning it out?

A. When I got to the bottom of the well after cleaning it out; I measured it the same day I cleaned it out.

X Q. 201. What was its depth at that time?

A. There was about sixteen inches of water in it.

X Q. 202. Where was this measurement made with reference to the centre of the well?

A. Near the centre.

X Q. 203. With what instrument or appliance did you make the measurement?

A. With the crowbar and pocket rule.

X Q. 204. Describe how you did it.

A. I put the crowbar down to the bottom and one hand on the crowbar at the top of the water, and then laid my rule on and measured it.

X Q. 205. About what was the distance from the surface of the ground down to the point where you commenced to clean out the well?

A. Well, about eleven feet, I should think.

X Q. 206. How do you ascertain this distance—from what data?

1687 A. I heard Mr. Tallman say it was eleven feet down to the dirt before I commenced cleaning of it out. I should judge it to be so.

X Q. 207. In arriving at the distance from the surface down to the point where you commenced to clean it out do you take into consideration the depth of material which you removed from the well?

A. Why, yes; in one sense I do.

X Q. 208. In what sense do you?

A. Why, eleven and three are fourteen.

X Q. 209. The walls of this well contract at the bottom where the same is composed of thinish, flat stones, presenting an irregular surface on the interior of the well, does it not?

A. Yes, sir; it does.

X Q. 210. Did you not discover some indications that some of these thin, flat stones had been thrust under the bottom of the wall, and the well made deeper than it was when it was first dug and stoned up.

A. They were irregular, and looked as if they were laid when there was water. I don't think they were thrust under the wall.

X Q. 211. The fact that these flat stones may have been laid when there was water in the well would not necessarily account for the rapid contraction of the bottom and the extremely irregular appearance of the wall at this point, would it?

A. It would in some degree.

X Q. 212. Couldn't these flat stones have been laid under water so as to have presented a much more even and regular surface or face to the wall of the well on the interior as well as to have so laid them as to leave rough and angular projections therefrom?

1688 A. I think they could.

X Q. 213. Are there not rough and angular projections in the wall at and near the bottom of this well?

A. Yes, sir; they are not laid perfect. I mean the stones are not laid perfect.

X Q. 214. When did you first see this copper strainer and sheet-iron tube or cylinder?

A. At night or evening on the first day I commenced cleaning it out.

X Q. 215. Do you know how these articles came to be in this well, or by whom they were placed there?

A. No, sir; I do not.

X Q. 216. Do you know where either of these articles came from before they were deposited in this well?

A. No, sir; I do not.

X Q. 217. Do you know how or when these articles were placed in this well?

A. No, sir; I do not.

X Q. 218. Do you know of any use or service either of these articles had been put to before they were deposited in this well?

A. No, sir.

X Q. 219. What does this sheet-iron tube or cylinder appear to be or to have been made for?

A. I don't know.

X Q. 220. May it not have been a portion of a magazine of a coal stove, and does not its appearance indicate that?

A. I could not tell what it had been.

X Q. 221. Does not its size and appearance indicate that it may have been either a section of a smoke-stack used in connection with a steam boiler or the drum to a stove?

A. Yes; it might have been.

X Q. 222. Did you ever see any other strainer in appearance like this copper strainer, in relation to which you have here testified?

A. Yes, sir; I have.

Adjourned to 9 o'clock a. m., September 28, 1880.

1689 September 28—9 o'clock a. m.

Parties appear pursuant to adjournment, Mr. Goodrich for complainants and I. H. Palmer for defendants.

X Q. 223. When and where have you seen such a strainer as this one in question, and for what purpose was it used?

A. There is one in the spring that supplies water to the farm I now occupy.

X Q. 224. Is that the only one of the kind you ever saw besides this?

A. No, sir.

X Q. 225. What others have you seen?

A. I have another one in the spring that supplies water for the house where I live. I have seen others. There was one in the spring that supplied the Pelton farm. I don't know of any more.

X Q. 226. Do either of these last-mentioned strainers differ in any respect from this one in question; if so, in what does the difference consist?

A. They differ in size. I don't know as they differ in any other respect. They are all made of copper.

X Q. 227. Do you mean to be understood that none of these several strainers you have mentioned are of the same size of this, or that all differ from this in size?

A. I think they all differ in size from this one, being all smaller in size. I think they are all smaller in size than this one.

X Q. 228. Have you compared, then, other strainers or any one of them with this one by measurement or any other way, or do you testify here in regard to their respective sizes solely from recollection?

A. I never have compared them together. I only compared them by recollection.

X Q. 229. How long since you have seen these several other strainers?

A. I saw one about two months ago. It was the one that was in the spring on the Harris farm, which supplies the farm I occupy.

The one that supplies the house where I now live I saw about a year ago. The other one I haven't seen for a number of years.

1690 X Q. 230. Where are these three springs you have mentioned located with reference to the well in question, and about how far distant is each from the well?

A. Two of them are located in a northerly direction from the well—one being about half a mile from the well and the other some further. The one that supplies the house where I live is in an easterly direction, about three quarters of a mile from the well.

X Q. 231. Are the two which are located in a northerly direction from the well located within the region of the freshet you have mentioned?

A. Yes, sir; they are.

X Q. 232. By what means is the water conducted from these several springs you have mentioned to the several places where it is delivered?

A. By lead pipes and iron pipes.

X Q. 233. In which of these springs is lead pipes used and in which is iron pipes used?

A. The one that supplies the farm that I now occupy is part lead and part iron; the other one on the Pelton farm was lead pipe when I knew it, and the one that supplies my house is iron.

X Q. 234. Did you tell John W. Suggett and myself on or about the 29th day of July, 1880, at the barn near the house where Mr. Share now lives, that Hiram Wicks had been engaged in cleaning out the well in question that day, or that in substance?

A. Yes, sir; I did.

X Q. 235. Was that true?

A. That was true; I told them so.

X Q. 236. Had Mr. Wicks or Weeks been there engaged in cleaning out the well that day?

A. Yes, sir; I believe he had.

X Q. 237. How many times have you measured the depth of water in this well since it was reopened and cleaned out?

A. Three or four times.

X Q. 238. Please state the result of your measurement of the water in this well at each time.

1691 A. The first time I measured it was on the day I cleaned it out; there was then about sixteen inches. The next time there was about fifteen inches, which was a few days after the first measurement. The next time I measured it there was about eight inches in it; that being about a week ago. I measured the last time at the request of the counsel, Mr. Goodrich.

X Q. 239. Describe the instrument and method employed in making these several measurements of the depth of the water in this well, and state where the measurements were made with reference to the center.

A. I took a strip of board and went down into the well on the ladder and put it down in different parts of the water in the well and held my hand on it at the top of the water and then took it up and measured it with my rule; I did this on the last occasion. I used a bar on the first two occasions, as I have already stated.

X Q. 240. Was the bar thrust into the gravel at the bottom of the well and then measured from the point of the bar to the place on the bar above the point reached by the water?

A. No, sir; I put the bar on the bottom of the well.

X Q. 241. Did you allow the weight of the bar to rest upon the bottom or place an additional weight upon it by leaning upon it in making these measurements?

A. I allowed the bar to stand on the bottom and rest its own weight on the bottom of the well; it being a very hard bottom, it would not make any impression.

X Q. 242. Is there not loose gravel in the bottom of this well which may be scooped up by the hand, and was it not so at the time you made these measurements you have testified to?

A. There was not at the first two measurements, as they were so close to the time I finished cleaning the well out. There was some in the last time when I measured it with a strip of board, but I measured it at the bottom under the little loose gravel; I thrust it down through the loose gravel to the bottom.

X Q. 243. When was it that you worked a crowbar down .6 or 8 inches into the gravely bottom of this well, as you have testified?

A. It was the same day that Mr. Daley was there and worked a hole in the bottom of the well.

1692 X Q. 244. When was it with reference to the time you measured the depth of water in the bottom of this well on the crowbar, as you have testified?

A. It was some time after; it might have been two weeks; I couldn't tell the exact time.

X Q. 245. To what depth did Mr. Daley puncture the bottom of this well by working a crowbar down into it, as you have stated?

A. I could not tell exactly what depth. He came up out of the well with the crowbar in his hands, and said he had worked it down in the bottom so far by shoving in the bar with his hands. I should think it was 8 or 9 inches, not seeing it measured.

X Q. 246. Did you and Mr. Daley use the same crowbar?

A. Yes, sir.

X Q. 247. Please describe this crowbar, giving its length, diameter, and approximate weight.

A. It was a small bar, I should think from 3 to 4 feet long, nearly an inch in diameter, weighing 5 or 6 pounds; I couldn't tell exactly.

X Q. 248. Is this well deeper at or near the center than it is next to the wall on either side?

A. From my best recollection, it is deeper in the middle and the easterly side.

X Q. 249. Is it not deeper in the middle than it is on the easterly side or either side?

A. No, sir; I think not any deeper than it is on the easterly side.

X Q. 250. Has not the gravel in the bottom of this well been scooped out in the center, making the bottom at that point considerably lower than the foot or base of the wall of the well?

A. No, sir; not to my knowledge.

X Q. 251. Will you swear positively that the bottom of this well at or near the center thereof is not from two to four inches lower than the base of the wall of the well?

A. Yes, sir.

X Q. 252. Will you swear positively that the bottom at or near the center is not lower than the base of the wall of the well?

1693 A. Yes, sir.

X Q. 253. Which is the lower of the two, the base of the wall of the well or the center of the bottom?

A. They are nearly alike. There may be some stones of the wall that, I think, are a little lower than the bottom of the center of the well, they being irregular.

X Q. 254. On how many different days were you engaged in cleaning out this well? Give the dates, as near as you are able.

A. On three different days. I could not give the dates, as I have no memorandum.

X Q. 255. Please give the month.

A. I think it was in August; it might have been in July, the latter part.

X Q. 256. What was the diameter of the well at its widest point?

A. I couldn't tell exactly; some few inches over two feet.

X Q. 257. Did you ever measure it at the point of its greatest diameter?

A. No, sir; not exactly. I had an ordinary carpenter's square, and it was some few inches wider than that was long.

X Q. 258. About how many inches over two feet is the greatest diameter of this well?

A. It may be five or six inches and it may be a little more.

X Q. 259. About how far above the bottom of the well has it the greatest diameter?

A. About half or two-thirds of the way up; I should think some 6 to 11 feet from the bottom.

X Q. 260. It is in shape a little like the interior of a cask standing on one end, is it not?

A. Yes, sir; is is somewhat like it, being smaller at the bottom and top.

Adjourned to 2 o'clock p. m.

1694 2 O'CLOCK P. M.

Parties appear, pursuant to adjournment, same as before.

X Q. 261. Is it not possible for two men at the same time to work in this well, supposing one to be posted on a ladder above the other?

A. They couldn't dig to clean the well out; not one above the other on the ladder.

X Q. 262. Could not a pipe be driven in the bottom of this well by placing a scantling or timber on the upper end of this pipe, and driving on the upper end of the scantling or timber, while the scantling or timber was held in position on the upper end of the pipe by a person stationed in the well?

A. No, sir; I think not; unless the pipe was held.

X Q. 263. Could it be done if the pipe was held?

A. Yes, sir.

X Q. 264. Might not a pipe also be driven in the bottom of this well by using a maul or sledge with a short handle, say one foot in length, by a person standing within the well?

A. I don't know; I should think it couldn't be; not in the middle of the well.

X Q. 265. Could it not be driven at one side of the well close up to the wall, with a sledge having a handle nearly two feet in length?

A. Yes, sir; I think it could.

X Q. 269. Could it not also be driven with a sledge by a person standing within the well, and grasping the handle of the sledge with the handle upwards in a perpendicular position and chucking the same down upon the pipe after the manner of a churn dasher in a common dash-churn.

A. Yes, sir; I think it might, with some difficulty.

X Q. 267. Were you engaged in cleaning out this well during a part of three consecutive days?

A. No, sir; there were days betwixt.

X Q. 268. How many days elapsed after you began to clean
1695 out this well, and before it was completed, including the day
you began and the day you ended the work of clearing out
the well?

A. I couldn't tell exactly; there might have been five or six or seven.

X Q. 269. Was the work of cleaning out the well all done within the same week?

A. I couldn't tell.

X Q. 270. Can you not tell whether or not a Sabbath intervened between the time of beginning and the time of completing the work of cleaning out the well?

A. I couldn't tell; there might have been a Sabbath betwixt; I think there was, according to my best recollections.

X Q. 271. Are you positive that the three days on which you were engaged in cleaning out this well were not consecutive days?

A. It is my impression they warn't; I believe they were not; I am about positive they were not.

X Q. 272. On what day of the week did you begin the work of cleaning out this well?

A. I don't know what day; I know it wasn't Sunday.

X Q. 273. What day of the week did you complete the cleaning out of this well?

A. I do not know, as I have no memorandum.

X Q. 274. Do you never keep a diary or memorandum of anything you do?

A. Yes, sir.

X Q. 275. Why did you not of this; did you not expect, at the time, to be examined on oath respecting it?

A. I thought it was of no consequence; I never expected to be examined; had no such expectations at all.

X Q. 276. Did you not know there was litigation going on in which this well formed a conspicuous part?

A. I knew Mr. Moses T. Tallman had been examined; I did not know it was in regard to that well.

X Q. 277. Did you not know Mr. Tallman had been examined in respect to that well where the windmill stood, and had you not been so informed?

A. No, sir; I had not been so informed at the time I cleaned out the well.

1696 X Q. 278. Did you know, or had you been informed at that time, that any other person or persons, aside from Mr. Tallman, had been examined in respect to this well, and was it not the subject of considerable comment in the neighborhood where you reside?

A. No, sir; I did not; there was talk about their being examined, but I did not know enough about it to know what it was about; I had enough business of my own to attend to.

X Q. 279. Did you not have a talk with Mr. Suggett and myself on or about the 29th of July last, at the barn near the house where Mr. Share now lives, about this well; and did you not, in that conversation, speak about the excitement over this well, and the witnesses who had been examined in relation thereto, and was this not before you began cleaning out this well?

A. There was a few words passed between myself and two gentlemen at the barn; I learned afterwards they were Mr. Suggett and Mr. Palmer; it was about the time mentioned; there was nothing said then about any excitement there; I can give about what the coversation was, if desired. I did not know the men at the time, and I should not have recognized them if I had seen them again anywhere else. I don't remember as anything was said about the witnesses; think there was not; this was before my commencement of cleaning out the well.

X Q. 280. State the conversation, giving what each said.

A. That I could hardly do, giving what each said; that is what I mean; they, one of them or both, inquired and wanted to know who had been cleaning out the well, and I told them it was Weeks I supposed had been there. They wanted to know what kind of a man he was, and I answered them according to my judgment. Something was said about people going to see this well, being the well here in question. On reflection, I think there was something said about the irons of the windmill, and whether I had given consent to have them taken away, and I told them I had not—a part had been taken away. The man who had took them away saw my wife, and left his name, saying if it was not right he would make it so when I came to Cortland.

1697 X Q. 281. Was not someting said in that conversation about witnesses and testimony?

A. No, sir; I think not.

X Q. 282. Did Mr. Parsons or any one on behalf of the complainants disclose to you the purpose for which they desired this well to be reopened and cleaned out?

A. No, sir; they did not.

X Q. 283. Are you sure of that?

A. Yes, sir.

X Q. 284. Did they not tell you why they wished this well cleaned out?

A. No, sir.

X Q. 285. Did anybody tell you what the well was to be cleaned out for; if so, who told you?

A. No, sir; no one told me.

X Q. 286. Did not you regard it as a strange proceeding that a stranger should desire to reopen and clean out a well located in a field on a farm occupied by you without explanation why or wherefore he wished to clean it out?

A. I did rather; I thought there was something he wanted to find out, and I gave him leave to clean it out.

X Q. 287. Did you not understand or have a suspicion that this well was to be cleaned out for some purpose connected with the driven-well controversy, and that if you cleaned it out you were quite liable to be called as a witness in relation thereto?

A. I knew nothing of the driven-well controversy. I work for pay. He said he would pay me well if I would clean it out. I had no suspicion of being a witness, and thought nothing about that.

X Q. 288. Have you been paid; and, if so, how much for cleaning out this well?

A. I have been paid very well, about seven dollars, by N. J. Parsons, one of the complainants.

X Q. 289. Why do you say you have been paid about seven dollars; don't you know the exact amount?

A. No, I don't; there was some other little work mixed in with it
that I did for Mr. Parsons; the other work was, I went to Preble
with him once to help him carry the pump to get it fixed. I
1698 furnished him grain to feed his horses one day when he come
up, and it was all paid together.

X Q. 290. Has Mr. Parsons or any one on behalf of the complainants paid you any other sum or sums or made you or your family any presents or promises of reward of any kind? If so, state the facts in relation thereto.

A. They have paid me no more than two dollars a day for the time I have been down here; they have never made any presents or promises to make any; I don't know about making any presents to my family, but I guess they have not, or I should have known it; I guess they don't know my family.

X Q. 291. How far do you live from where Moses T. Tallman now lives?

A. The distance is from 30 to 40 rods, I should think; it may be a little more.

X Q. 292. Do you usually pass his house in going to the westerly part of this farm where Share now lives?

A. Yes, sir; I do.

X Q. 293. How many consecutive days intervened between the time you commenced to clean out this well and the day on which you finished it?

A. I couldn't tell exact; there might have been two or three.

X Q. 294. Were you engaged in cleaning it out on any two consecutive days; if so, was it at the beginning or at the close of the work?

A. I think not; I think I worked a part of a day and then skipped a day, and then worked a part of a day and skipped two or three days, and then the next time finished it.

X Q. 295. Was Mr. Share in the well during any portion of the time you and he were cleaning it out?

A. No, sir; he was not.

X Q. 296. Did the water which came into this well run in at the bottom of the wall or run in above the bottom?

A. It came in at the bottom and so up the wall about five or six inches.

X Q. 297. Were you ever at the bottom of the well at the house where Share now lives?

1699 A. No, sir.

X Q. 298. Is that well entirely dry now or is the water so rily as not to be fit for use?

A. It is so dry that you can see half of its gravelly bottom, being no water there.

X Q. 299. Have you ever been at the place on the farm of Moses T. Tallman when a steam shovel or excavator has been at work this summer by the railroad; and, if so, did you observe the character of the earth at the excavation made there, and how does it compare with the material of which the earth about this well and at the bottom of it is composed?

A. Yes, sir; I have been at the place referred to and observed the character of the earth there, it all being gravelly soil; that on the farm of Mr. Tallman being more of an equal gravel—I mean not being much dirt or many big stones mixed with it.

X Q. 300. Is it similar in kind and character at this excavation and at the well?

A. Yes, sir; somewhat.

X Q. 301. Where is this excavation by the railroad with reference to this well and how far distant?

A. It is in a southeasterly direction and about half a mile distant.

X Q. 302. Is there any visible inlet to either of the Tully Lakes about which you have testified?

A. I don't know; I am not much acquainted with the Tully Lakes.

X Q. 303. What is the character of the water in the Tully Lakes?

A. I don't know.

Cross-examination closed at 5 o'clock and 20 minutes p. m., September 28.

Adjourned to September 29th, 1880, at 9 o'clock a. m.

1700 SEPTEMBER 29TH, 1880—9 o'clock a. m.

Parties appear, pursuant to adjournment, same as before.

Redirect examination by Mr. GOODRICH:

R. D. Q. 1. Mr. Ballard, up to the time that Mr. Parsons called to have you point out the place of this well in question, had you known or heard anything, and, if so, to what extent, of there being a controversy in relation to what is called the driven well?

A. Yes, sir; I have heard something about it.

R. D. Q. 2. Have you ever had a driven well on the farm or premises you have occupied?

A. No, sir.

R. D. Q. 3. Up to the time Mr. Parsons so called on you had you ever heard from either of the Mr. Tallmans or anybody else that the well you pointed out to Mr. Parsons was claimed in any sense to be a driven well?

A. No, sir.

R. D. Q. 4. What request, in respect to this well in question, did Mr. Parsons at that time make to you? State what he said at that time.

A. He said he wanted to find that well; he wanted to clean it out, to know whether it was a dry well or whether there was water in it; he asked me if I could show him the place where the well was; I told him I could, and did do so.

R. D. Q. 5. When you went down to the place where the well was with him did you see that he had any tools there or near there? If so, what?

1701 A. Yes, sir; he had a crowbar and an iron sledge, I believe, and an old driven-well pipe, I should call it; I don't remember as he had any more, but still he might; he borrowed my shovel; I remember that; it was a round-pointed shovel.

R. D. Q. 6. Did he then and there state to you anything as to what he wanted your consent to his doing in reference to this iron pipe you speak of?

A. No, sir.

R. D. Q. 7. Did he say anything as to driving that pipe into the ground within or near the well? If so, for what purpose did he state?

A. When I came there the second time he said they had drove a pipe down in, but did not succeed in getting it down very far, so they went to work cleaning the well out; the second time I referred to was the same second time referred to on my direct examination.

R. D. Q. 8. State what, if anything, Mr. Parsons, at either the first or second time you were there, stated to you what his object was in thus reopening the well.

A. He said he wanted to clean it out to the bottom of the wall to know if there was any water, and to know how much there was in that well, if any; there were the two men I spoke of in my direct with him.

R. D. Q. 9. How long did you remain at the well on the two occasions on the first day you were at the well, when Mr. Parsons and the two men were there at work?

A. Not but a very short time; I should say not over about five minutes; I should say about five minutes the first time and not quite so long the second time.

1702 R. D. Q. 10. Do you know how long they worked there that day in cleaning out the well?

A. No, sir; not exactly; I should think about four or five hours; perhaps a little more; they worked down to about five o'clock, or a little later.

R. D. Q. 11. When did you next see Mr. Parsons with reference to the time he and the men commenced cleaning out the well?

A. I saw him that night.

R. D. Q. 12. Did anything further occur then in respect to cleaning out the well. If so, state.

A. Yes, sir; he said he had been and seen some one about cleaning out the well—about cleaning it further out; he said Mr. Weeks would come and do it.

R. D. Q. 13. Do you know whether Mr. Parsons and the two men left to return to Cortland or not?

A. Yes, sir; they did.

R. D. Q. 14. When was Mr. Parsons next there when you saw him?

A. I should think two or three days after; at the time he spoke to me about cleaning out the well; it was at the same time as I have stated on my direct.

R. D. Q. 15. How long was he there then?

A. Not but a short time; I should think he was there about a half an hour.

R. D. Q. 16. When did you next see him there?

A. I don't know exactly; some days after; it was the day Mr. Share and I commenced to clean it out.

R. D. Q. 17. How long did he remain there then?

A. A few minutes.

R. D. Q. 18. Did he make any request of you then as to your work in cleaning out the well?

A. Nothing; only he wanted it cleaned out.

R. D. Q. 19. I call your attention to a statement made by Mr. Share in his testimony that his recollection is that the sheet-iron tubing and copper strainer were dug out and sent up, as he thinks, on the second day you and he worked in cleaning out the well, and ask you to state whether that in anywise enables you to change your own statement, on your direct examination, that these articles were found on the first day you worked.

1703 A. No, sir; it does not; they were sent up on the first day.

R. D. Q. 20. After these articles were found and Mr. Parson's attention was called to them, state whether he did or not repeat his request that you should go on and clean the well out down to the bottom of its wall, so as to ascertain what quantity of water there was at the bottom.

A. Yes, sir; he did.

R. D. Q. 21. How long after you had put this copper strainer and sheet-iron tubing in your granary, as you have stated on your direct you did, did Mr. Parsons call for and obtain them?

—. ——.

Adjourned to 2 o'clock p. m.

2 O'CLOCK P. M.

Parties appear, pursuant to adjournment, same as before.

1704 R. D. Q. 22. What was done with the copper strainer and sheet-iron tubing at the close of your work in cleaning out the well on the day they were found in the well?

A. I took them up to the barn and put them in the granary; I kept them there, I should think, about a week or so, until Mr. Parsons called for them, and then gave them to him.

R. D. Q. 23. What occasioned so much time in the work in your cleaning out the three feet of earth remaining at the bottom of the well when you commenced cleaning it out?

A. The water; and I had other work to attend to on my farm during the same days; in cleaning out the well I spent with my hired man from four to five hours the first day and from three to four the second and about three hours the third day.

R. D. Q. 24. Did you employ any pump or pumps on either of the days in assisting to get rid of the water; if so, on which days, and who furnished the pump or pumps?

A. Yes, sir; we had a pump on one of the two last days mentioned, and I think it was the last day furnished by Mr. Parsons; the pump gave out and we had to bail the water out with a pail; Mr. Parsons assisted part of the time in pumping and bailing.

R. D. Q. 25. When you re-examined the well in company with Mr. Daley and the others, as you have mentioned, state whether Mr. Parsons furnished another pump to get the water out of the well, and was it used on that occasion.

A. He furnished a pump which I should think was the same pump repaired; when first used it was lengthened out with tin, but when used on this day it was lengthened out with galvanized iron, and then worked well; the orifice of the pump used was a little over three inches, I should think; worked by hand.

1705 R. D. Q. 26. Now, Mr. Ballard, state *what* the appearance of the wall that was laid up of flat stone at and near the bottom of the well, as to having been in the well for a long time, and whether they presented in this respect the same appearance as the wall above made of cobble-stone, as you have stated.

A. The flat stone at the bottom of the well appeared all alike; they appeared to have been in the well ever since it was dug or stoned; the cobbles appeared to be the same.

R. D. Q. 27. Was there any appearance visible to you of the flat-stone part of the wall at and near the bottom of the well and for two feet up, as you have stated, having been recently put into the well?

A. No, sir; they were all of one appearance.

R. D. Q. 28. Would it be possible, do you think, to put in under a cobble-stone wall, such as is in this well, an extended wall by using flat stone two feet down and part way through water, at the same time sinking the well down for that distance? And state whether, if it be possible to do it, the work would be difficult and dangerous, and how long it would take, in your judgment, to do it, if it could be done.

A. I should think it would be most impossible; if it could be done it would take a much longer time than it would to tear up the whole wall of the well and build it all over new, and it would be very difficult and dangerous to do it.

R. D. Q. 29. Is it common and easier to lay up a wall of a well with flat stone through water than it would be by using cobble stones?

1706 A. I don't know as it is common on these cobble-stone flats, but it is much easier to lay flat stone in water than cobble-stone.

R. D. Q. 30. State whether you had known, by information, that a controversy had sprung up in relation to the driven well, so called, previous to the time Mr. Parsons called on you for the opening and examination of this well in question.

A. Yes, sir; I had, but paid little or no attention to it.

R. D. Q. 31. State now whether, during the opening and examination made of this well in question, you came to think that such opening and examination was connected with that controversy between some parties, and how early in the opening and examination you began to think so, if you can tell.

A. Yes, sir; I did have some suspicion after I had worked at the cleaning out of the well, and by hearing talk by other persons I become to learn from time to time that it did have some connection with some controversy in regard to the driven well. I think it was about the third time I saw Mr. Parsons; by his coming up three times I began to think it had some reference to some controversy. I had heard something about some controversy about the driven well, and had some suspicion the cleaning out of this well had some connection with that controversy before I began to clean it out with my hired man.

R. D. Q. 32. You have spoken on your cross-examination of having found, in cleaning out the well, a grist-mill elevator cup. I ask you to say whether the article now presented to you is that cup. If so, please describe it.

1707 A. Yes, sir; it is the same. I think, on examining it, it is tin. It has the appearance of being very old and rusted out and bent in on one side. It is about 5 inches across it and 4½ inches deep, and is rusty and dirty.

R. D. Q. 33. Since this well has been cleaned out, as you have stated, has it been open and accessible to everybody who desired to visit it, and has there been for the whole or most of the time a ladder in it, enabling them to enter and go to the bottom?

A. Yes, sir; it has been so open, and the ladder has been in the well most all of the time.

R. D. Q. 34. How small is the smallest of the gravel that composes the gravelly bottom of this well?

A. It is very small; from very small up to as big as a hen's egg, or bigger.

R. D. Q. 35. Now, Mr. Ballard, you have spoken on your cross-examination of seeing a pipe or rod sticking up out of the well during the four years that you first lived on these premises, in the house where Mr. Share now lives. State, now, what is your recollection as to having seen that pipe or rod sticking up out of the well after this freshet you have spoken of, which partly filled up the well.

A. I think, according to my best recollections, I saw it after the freshet.

R. D. Q. 36. Do you recollect whether the freshet occurred before or after June, 1864?

A. I couldn't say for certain, but I think it was after 1864, but it may have been before. I think it was the last of March or in April of one of the four years that I lived there.

Redirect closed at 4.30 o'clock p. m., September 29, 1880.

Recross-examination by Mr. PALMER:

R. X Q. 1. Was the grist-mill cup now produced before you, the copper strainer, and sheet-iron curb or tube marked, scratched or scarred by any recent marks when you found them in the well as you have testified?

A. No, sir; not to my recollection.

1708 R. X Q. 2. Was the earth surrounding this grist-mill elevator cup or the sheet-iron tube or curb which you found in the well colored with iron rust?

A. By moving the earth it all got mixed up so I couldn't tell as it was.

R. X Q. 3. You did not, then, discover that the earth surrounding these articles in the well where you found them bore any traces of discoloration by iron rust, did you?

A. No, sir; that would be impossible in this water and dirt, to discover any discoloration.

R. X Q. 4. How many times did Mr. Parsons see you or visit you with reference to this well in question before you delivered up to him the articles you found in the well?

A. Two or three times. I couldn't tell the exact number of times. It might have been four times, but I think not over three.

R. X Q. 5. Where did you first meet him when he proposed anything respecting this well in question?

A. At my barn-yard. The two men, Blanchards, that helped clean out the well were with him. I did not know their names then.

R. X Q. 6. When or where next did you see him, and who was present, after that day?

A. I think it was two or three days afterwards. He came up to the farm. I don't know as any one was present.

R. X Q. 7. Was that the occasion when he engaged you to clean out the well?

A. Yes, sir; I think it was.

R. X Q. 8. At what place on the farm did you see him on this last occasion?

A. Somewhere near the barn.

R. X Q. 9. What was he doing when you first saw him on this occasion?

1709 A. He wasn't doing anything.

R. X Q. 10. Where were you when you first saw him on this occasion?

A. I think I was up near the house.

R. X Q. 11. Which way from the barn was he at that time?

A. West from the barn.

R. X Q. 12. Was he in the highway?

A. He came into the barn-yard from the highway. He was not in the highway when I first saw him. He was either in the barn-yard or the lot north of the barn when I first saw him. That is not the lot in which this well is in. The barn I speak of is the one near where Share now lives.

Adjourned to 9 o'clock a. m., September 30th, 1880.

SEPTEMBER 30TH, 1880—9 o'clock a. m.

Parties appear, pursuant to adjournment, same as before.

R. X Q. 13. What time of the day was this when you first saw Mr. Parsons on the occasion referred to?

A. Well, I couldn't tell just the time. It might have been in the forenoon and it might have been in the afternoon. I couldn't tell.

R. X Q. 14. Was this the occasion when he engaged you to clean out this well; if not, when did he so engage you, with reference to this time?

A. I think that was the time that he engaged me to clean out the well.

R. X Q. 15. Was Mr. Share present when he engaged you, and where did the conversation take place?

A. No, sir; I think not. We were somewhere near the barn, or in the barn.

R. X Q. 16. Was this the same occasion when Mr. Parsons stated to you he had employed a man to clean out this well, but he had failed to do so, as you have testified in substance?

A. No, sir; it was not.

1710 R. X Q. 17. When was it, with reference to that time?

A. It was the time before that time.

R. X Q. 18. Do you mean that the occasion when Mr. Parsons stated he had employed a man to clean out this well, and he had failed to do so, was after this and the next time you saw him?

A. Yes; it was.

R. X Q. 19. Mr. Ballard, if I have understood your testimony here given, you have testified that on the second occasion, after the day Mr. Parsons and Blanchards were there, Mr. Parsons told you that he had employed a man to clean out the well to the bottom, but he had failed to do so, or this in substance, and that Mr. Parsons then proceeded to engage you to complete the cleaning out of the well, and that this was on the occasion of Mr. Parson's second visit; is not this so? And, if not so, please state fully how it was.

A. Yes, sir; it was so; I know that Mr. Parsons and the Blanchards had cleaned it out, down a certain distance, and that Mr. Weeks had cleaned out some of the well.

R. X Q. 20. Did Mr. Parsons say anything in that conversation about Matthias Van Hoesen; if so, what was it?

A. Yes, sir; he had been to Preble, and said he had seen Mr. Van Hoesen, and he, Van Hoesen, would get Mr. Weeks to finish cleaning out this well; he did not speak of having personally employed Mr. Weeks to clean the well.

R. X Q. 21. Had Mr. Parsons been to the well that day before he employed you to clean it out, as you understood?

A. Yes, sir.

R. X Q. 22. Who was with him, if anybody?

A. I think he was alone.

R. X Q. 23. Did you see him at the well before he engaged you to clean it out on that day?

A. No, sir; I did not.

R. X Q. 24. Did you see him at the well that day after he had engaged you?

A. No, sir; I think not.

1711 R. X Q. 25. Was there a field of corn between the highway, running north and south past Share's house, and this well; I mean on the east side of this highway running north and south?

A. No, sir; there was not.

R. X Q. 26. Was there not then a field of growing corn east and southeast of the barn, situated near this highway and near Share's residence.

A. Yes, sir; there was.

R. X Q. 27. Did not that bring the field of corn between this well and the highway?

A. It did, in a southerly direction.

R. X Q. 28. Was Mr. William E. Tallman in his lifetime a man that talked much or boasted of improvements or appliances which he had invented?

A. He was a man who talked considerable, but he never boasted of his improvements or inventions in my presence, to my knowledge.

R. X Q. 29. If William E. Tallman went to this well in 1859 with his hired hands, and in the bottom of this well drove this perforated pipe (here marked for identification), thereby constituting a driven well, and had afterwards said nothing about it to any one, do you regard it as remarkable or strange or unusual that you heard nothing about it that you can now remember, or that you had never heard that Mr. Tallman had constructed a driven well within this well in question?

A. I think I should have heard through Mr. Tallman or his hired hands if there had been a pipe drove in the bottom of that well.

R. X Q. 30. How could you have heard of it from Mr. Tallman if he had said nothing about it?

A. I think he would have told of it.

R. X Q. 31. The question put to you provided that he should not tell of it; how could you hear of it from him if he said nothing about it was the question?

1712 A. I could not.

R. X Q. 32. Did Mr. Parsons say or intimate to you when he engaged you to clean out this well that any articles might be found therein, or did he make any request of you respecting articles which you might find therein? If so, state what he said in this respect.

A. No, sir; he did not.

R. X Q. 33. What led you to preserve the articles you say you did find in this well so carefully as you did and deliver the same to Mr. Parsons?

A. Nothing, only I knew that this copper strainer was of some value, and I thought I would show them to Mr. Parsons.

R. X Q. 34. The sheet-iron tube and the elevator cup were of no value whatever, were they?

A. No, sir; not to me.

R. X Q. 35. Did you lock them things up together in your granary after taking them from the well?

A. No, sir; I did not.

R. X Q. 36. Did you place them all together in the granary; if not, what did you do with them?

A. When I brought them from the well I took them up near the barn; I left them there until Mr. Parsons came; I showed them to Mr. Parsons, and he told me to take care of them; I then put them in the granary, but didn't lock them up, only as we lock the barn every night. The granary is in the barn.

R. X Q. 37. On which of the three days on which you worked at cleaning out this well do you now say you found these articles, as you have testified?

A. The first day.

R. X Q. 38. Why did you continue cleaning out this well after you had found these articles; had you not accomplished the purpose you had in cleaning it out?

A. I continued cleaning at Mr. Parson's request to clean it to the bottom.

R. X Q. 39. Were not the stone at or near the bottom of this well flat field stone, or were they taken from a quarry?

1713 A. I should think they were flat field stone.

R. X Q. 40. Do you mean to be understood as testifying that you could discover any difference between the flat stone in the wall of this well and any other flat field stone similarly situated, however recently the same may have been placed in the wall or under the wall of this well?

A. Yes, sir; by handling stones they are liable to get broke, and a stone newly broke has a different appearance from them where they have been in the well for years.

R. X Q 41. Were any of these flat stone in the well at or near the bottom of this well broken by you or any one during the time this well was being cleaned out?

A. I did not see at or near the bottom of the well any stone that had been newly broken.

R. X Q. 42. Defendant's counsel here presents to the witness a fragment of stone, which he examines. State how this stone compares in appearance with the flat stones in the well near the bottom of this wall and whether or not you can tell from its appearance that it was or was not taken from the wall of this well.

A. It looks something like the stones in the wall near the bottom of the well by its being flat. I can't tell from its appearance whether it was or was not taken from the wall at the bottom of this well, but I should think not, on account of its having dry dirt on it.

R. X Q. 43. Is that the only reason you have for the opinion that it was not a part of the wall of this well previous to the time when it was cleaned out?

A. I think it wouldn't be so dirty if it had been in the wall near the bottom of this well.

R. X Q. 44. Is there anything else about it to distinguish its appearance from that of the flat stone in the wall of this well?

A. It is not so large as the flat stones near the bottom of this well. I see nothing else to distinguish its appearance from the flat stones in the wall near the bottom of this well.

Adjourned to 2 o'clock p. m.

1714 2 O'CLOCK P. M.

Parties met, pursuant to adjournment, same as before.

R. X Q. 44. In answer to question 29, redirect, you say, "It is much easier to lay flat stone under water than cobble-stone." Is it not as much easier to make a wall of flat stones than cobble-stones out of water as it is in water?

A. I should say no, sir; not in a well.

R. X Q. 45. Is it not much easier to make a wall of flat stones than cobble-stone in any place or location; and, if so, is that all you mean by your answer to question No. 29, redirect examination?

A. 'Tis much easier to lay a wall of flat stone, where it hasn't anything to support it, than cobble-stones, and I mean except in water.

R. X Q. 46. Where a well is being walled up with stone, is not the earth outside the wall a support to it, and is it not usually filled in as fast as the well is raised?

A. It is a support. I never walled up a well. I don't know whether they fill in or not, but I think not.

R. X Q. 47. Where have you been stopping since the close of the cross-examination?

A. I have been here the most of the time.

R. X Q. 48. Have you boarded and lodged at the Messenger House in this village, in company with the complainants' counsel, during your examination here?

A. Yes, sir; I have boarded and lodged at the Messenger House; some of the time I have been in their company and others.

R. X Q. 49. Have you conversed with complainants' counsel about the evidence you had given and were to give on your examination here since the close of the cross-examination on the afternoon of September 28th?

A. We have talked together about different things connected with my evidence and other things. I don't recollect much what has been said.

R. X Q. 50. How many times and when and where have you so talked together?

1715 A. It may be two or three times; at different places. I have not kept a record of it.

R. X Q. 51. Was your attention called in either of these conversations to the difference between your testimony and that of Mr. Share in respect to the day when you found the articles, you have here produced, in this well, as you have testified?

A. I don't know but what it might have been. I remember Mr. Goodrich stated we didn't differ much in our testimony. I remember I told him we couldn't very much, being both together there at the well.

R. X Q. 52. Was anything said as to which of the two was correct, as between yourself and Mr. Share?

A. I don't remember hardly what was said.

R. X Q. 53. Did you ever know a gentleman by the name of Thomas, sometimes called Jeff. Thomas? If so, did he ever live in Preble? And please give the location of his residence.

A. I knew a man by the name of Jefferson Thomas, living in the town of Preble; he was a miller and lived near Mr. Stanton's grist-mill; that is the one referred to, I suppose.

R. X Q. 54. When was that that he lived near Stanton's grist-mill, and where did you reside at that time?

A. It was some years ago. I think I resided at the same place I do now.

R. X Q. 55. How far distant was your residence from his?

A. If I lived where I do now it was but a short distance.

R. X Q. 56. Did you enter his cellar one night without his permission, and were you found in his cellar in the night time?

A. No, sir.

R. X Q. 57. Were you detected in stealing pork from the cellar of Mr. Thomas while he lived in Preble, and did you settle and compromise that affair?

A. No, sir.

1716 Defendant's counsel here requests the notary to mark for identification a fragment of stone, respecting which the witness, Thomas Ballard, has been questioned on his recross-examination, as "Defendant's Exhibit, for Identification, A, H. J. M.," and the notary here marks the same as requested.

Recross-examination closed at 3.25 o'clock p. m., September 30th, 1880.

By Mr. Goodrich:

R. D. Q. 1. Mr. Ballard, you have now testified to and have answered the two last questions put to you by the counsel for the defendant. State now whether you ever knew or heard from anybody that either the Mr. Thomas referred to or any other human being ever suggested or in any way imputed to you the charge of having been in Mr. Thomas' cellar without his permission, either in daytime or night time, or of having stolen pork from him or his cellar or from anybody else until these questions were put to you by defendant's counsel at the close of the recross-examination here before the notary.

A. No, sir; I never did.

R. D. Q. 2. What were the relations, as to being friendly or otherwise, existing between you and Mr. Thomas referred to, from the time that you commenced living neighbor to him down to the time of his removal away from the neighborhood?

A. We were very friendly; I recollect Mr. Thomas more distinctly since he has been spoken of; often used to visit with him over to the mill, and we were on very friendly terms.

R. D. Q. 3. In your answer to recross-question 33 you say you thought you would show the articles found in the well upon your cleaning it out to Mr. Parsons, and that you did so. State now why you did so—from what motive or consideration did you show them to him.

1717 A. I had heard something about a driven-well contest and it wasn't much trouble to bring them up, so I thought I would and show them to him.

R. D. Q. 4. Had you any idea, without actually knowing, that they might possibly be of service to him in the driven-well contest you had heard about, as evidence?

A. I had some suspicion that they might be of some service, without knowing as evidence.

Complainants' counsel asks the notary to mark the grist-mill elevator cup found in this well by this witness as "Complainants' Exhibit H for Identification, H. J. M.," to be produced before the court, and the notary so marks it, the same being (for the present) left with the notary.

Redirect examination closed.

Re-recross by Mr. Palmer:

R. R. X. Q. 1. Did you know or had you heard at the time you found these articles in the well that Mr. Parsons had any interest in or connection with the driven-well controversy?

A. No, sir; I didn't know Mr. Parsons.

Redirect by Mr. Goodrich:

R. D. Q. 1. Did you suspect that Mr. Parsons, when he did get you to clean out this well, had some connection as agent or otherwise in the driven-well contest that you had heard of, and was it for that reason that you showed him these articles found in the well?

A. I had suspicion he had something to do with it, as otherwise he would not have been up there, and for that reason I showed them to him.

(S'g'd) THOMAS BALLARD.

Subscribed and sworn to — me this 30th day of September, 1880.

(S'g'd) H. J. MESSENGER,
Notary Public.

1718–1721 Examination closed at 4.25 p. m., this 30th day of September, 1880, and adjourned.

I hereby certify the foregoing record, composed of 277 pages, to be the original record and testimony and statements and the whole of said record in this case, this 30th day of September, 1880.

[SEAL.] (S'g'd) H. J. MESSENGER,
Notary Public.

(End.:) Andrews *et al. vs.* George Leland. Depositions of Orrin W. Pratt *et al.* Opened and filed May 10, 1881. E. R. Mason, clerk.

1722 12.20 P. M.

Then came CHESTER P. HURD, who, being duly sworn, testified as follows:

First direct:

Q. 1. State your name, age, residence, and occupation.

A. Chester P. Hurd; age, 57; residence, Batavia; I have charge of a planing-mill.

12.35 P. M.

Further examination of this witness postponed until half past one p. m.

Half-past one.—Parties appeared pursuant to adjournment.

Q. 2. How long have you resided at Batavia, N. Y.?

A. About nine years; will be in August next.

Q. 3. State whether or not you resided in Warsaw, N. Y.; and, if so, during what time.

A. I lived in Warsaw continuously twenty years the last time I lived there.

Q. 4. State whether or not, while you resided at Warsaw, N. Y., you were acquainted with Chauncy C. Buxton and Timothy H. Buxton; and, if so, how long you have been acquainted with them.

A. I have known them both probably fifty years.

Q. 5. State in what business, if any, Chauncy C. Buxton and Timothy H. Buxton were engaged while you were in Warsaw.

A. They were in the wagon and carriage business.

Q. 6. Where was their place of business located?

A. On South Main street, Warsaw, N. Y.

Q. 7. In what business, if any, were you engaged while in Warsaw?

A. In lumber trade.

Q. 8. Where was your place of business located with reference to the place of business of Chauncy C. and Timothy H. Buxton?

A. On South Main street and immediately in the rear of Buxton's shop.

Q. 9. State whether there was a street leading into your place of business or how you got there.

1723 A. There was a private lane running through from Main street.

Q. 10. State whether or not people passed with teams through this lane from Main street to your shop.

A. They did.

Q. 11. Which side of Buxton's shop was this lane?

A. North side.

Q. 12. State how many shops the Buxtons occupied at their place of business.

A. They had four till 1860 and then they had three. There was a wood shop, a blacksmith shop; two blacksmith shops formerly and their warehouse.

Q. 13. During what year did they occupy two blacksmith shops and where were they located with reference to the wood shops?

A. I could not state positively. The brick blacksmith shop was immediately in the rear of the wood shop. The other blacksmith shop was just west of the brick one, along the side of the lane.

Q. 14. State what, if anything, became of the blacksmith shop which was back of the brick blacksmith shop.

A. It was burned up.

Q. 15. State when, if you can, it was burned up.

A. October 13th, 1859.

Q. 16. About how far apart were these two blacksmith shops?

A. About fifty feet, I should judge. It might have been more, but not much.

Q. 17. State whether or not, while you were in business at Warsaw, other parties were connected with you; if so, give the name of the firm.

A. There were other parties at 1859. The firm was Hurd & Gates; continued in that name until we dissolved in 1865 or 1866. Prior to 1859 Breck, Gates & Hurd commenced in February, 1855.

Q. 18. State whether, while you were at Warsaw, you were acquainted with Elihu R. Benson.

A. I was.

1724 Q. 19. In what business, if any, was Elihu R. Benson engaged?

A. He was in several kinds of business—sometimes working as a day hand and sometimes running a little shop for himself.

Q. 20. State whether or not he was at any time in the employ of your firm, if so, during what time.

A. I don't think he worked for either firm. He worked for me prior to that; in 1852, perhaps.

Q. 21. State whereabouts Benson's shop was located during the time you say he ran a shop.

A. He formerly had a shop, in a building of mine two miles south of Warsaw, in 1854 and 1855. Then he went into Garratsee's foundry. Then he moved into Hurd & Gates' planing-mill. From there he went to Buxton's wagon shop.

Q. 22. How long and during what time did Benson run a shop in the planing-mill of Hurd & Gates?

A. I don't know as I can tell the exact time he came. My best judgment would be that he came in 1857 and went away in the latter part of 1858 or the fore part of 1859.

Q. 23. State what machinery, if any, Benson had which he ran and operated while in the mill of Hurd & Gates.

A. He had what we call an engine or slide lathe for turning iron.

Q. 24. Describe the lathe which you say Benson had.

A. It was one of the old style of the simplest kind of an iron lathe—wooden frame with iron ways on top of it, cone pulleys, back gear, and fed by a rack and pinion; I think the extreme length, 12 feet.

1725 Q. 25. State whether or not the lathe had any attachments for extending its length.

A. I don't think it had any extension.

Q. 26. State whether or not you were familiar with the different kinds of machinery that Benson had and operated while he was in the mill of Hurd & Gates.

A. I think I was. I saw it every day.

Q. 27. State whether this lathe which Benson had had any dies or plates or attachments for cutting screw thread or pipe.

A. I never knew of any.

Q. 28. State whether or not if Benson had had any such dies, plates, or attachments while in the shop of Hurd & Gates you would have known it.

A. I think I should.

Q. 29. State whether or not you are acquainted with what are commonly known and called gas tongs.

A. I am.

Q. 30. State whether while Benson was in the shop of Hurd & Gates he had any gas tongs.

A. He had not, to my knowledge.

Q. 31. State whether or not while Benson was running a
1726 shop in the mill of Hurd & Gates, Hurd & Gates had in their
shop or mill any dies, plates, or tools for cutting screw threads
on pipe.

A. They had not.

Q. 32. State whether or not, during the time Benson was in the mill of Hurd & Gates, Hurd & Gates had in their mill any gas tongs.

A. They had none.

Q. 33. State from what source or sources water was obtained for use in the mill of Hurd & Gates.

A. Taken from a well.

Q. 34. Describe the well.

A. Dug well, stoned up in the ordinary way.

Q. 35. State whether or not there was any place at or near the mill of Hurd & Gates where water was obtained for watering horses. If so, at what place?

A. There was none on their premises, except the Oatka creek run across it; Buxton had a pump in his yard where he watered horses and obtained water for setting tire.

Q. 36. State whether or not, during the time you were in business at Warsaw, as you have stated, you were familiar with the premises and different shops occupied by the Buxtons at their place of business and the machinery operated by them.

A. I was.

1727 Q. 37. State whether or not you were frequently or not in and out of the blacksmith's shop of the Buxtons during the time you were in Warsaw, as you have stated.

A. I was in there frequently—perhaps three or six times a week.

Q. 38. State whether or not at the time Elihu R. Benson moved from the mill of Hurd & Gates into the shop of C. & T. Buxton he moved any dies or plates for cutting screw threads on pipe.

A. I don't think he did.

Q. 39. State, if you can, how long Mr. Benson remained in the shop of C. & T. Buxton?

A. Perhaps a year or a year and a half—not over that.

Q. 40. State in what business Benson was engaged while in the shop of C. & T. Buxton.

A. Part of the time he was making blind staples, the rest of the time he was doing a general jobbing business.

Q. 41. State whether or not, during the time Benson was in the shop of the Buxtons, you were familiar with the machinery operated by him?

A. Yes.

Q. 42. State whether or not, while this lathe was used by Benson in the shop of Buxtons, it had put upon it any dies, plates, or attachments for cutting screw threads on pipes?

A. I don't think it had.

1728 Q. 43. State whether or not, while Benson was in the shop of C. & T. Buxton, he had any dies or plates for cutting, screw thread on pipe?

A. Never, to my knowledge.

Q. 44. State whether or not the Buxtons had in their shop any dies or plates for cutting screw thread on pipes?

A. They never had any that I know of what would be called pipe dies; they had the ordinary tools in blacksmiths' shops for cutting screws—nothing very large.

Q. 45. State how large a die or plate they had for cutting screws.

A. I don't think they had anything that would go over an inch and a quarter.

Q. 46. State from what source or sources water was obtained for use in the shops occupied by the Buxtons?

A. I believe they had a dug well near one corner of their blacksmith shop; for their engine they took it from the mill-race under their shop.

Q. 47. Describe the well which you say was near the blacksmith shop?

A. It was an ordinary stoned well.

Q. 48. State whether or not there was any pump in the well; if so, you may describe it.

A. The first pump I remember seeing there was an iron pump; the pumping part was in the bottom of the well, the pipe constituted the rod, the handle was attached to the pipe, the fulcrum was on the platform.

Q. 49. Was this pump what is commonly known or called a force or hydraulic pump?

A. I should think it would be a force pump.

1729 Q. 50. State whether or not you recollect that a company commenced operations in putting in gas works at the village of Warsaw?

A. I recollect such a company.

Q. 51. State if you know any of the members of that company?

A. I know two of them—Abraham Lawrence and Horace Metcalf; they were the two active members; I don't know as I know of other names; they were the ones that controlled it.

Q. 52. State whether or not there were any gas works in Warsaw prior to the time you say Lawrence and Metcalf commenced work there.

A. Mr. Darling had private gas works prior to that.

Q. 53. State whether or not you were familiar with the machinery in the different machine shops in the village of Warsaw.

A. I, perhaps, was as familiar as a man could be who was not working in them; I was out and in and used them, their tools, considerable.

Q. 54. State whether or not, prior to the gas company commencing operations there, there were any dies or plates in any of the shops of the village of Warsaw for cutting screw thread on gas pipe.

A. There was none that I know of.

Q. 55. State whether or not, prior to the gas company commencing operations there, there were any gas tongs in use in any of the shops of the village of Warsaw.

A. I never saw any there till that time.

1730 Q. 56. If there had been any such tongs in use in the shops there would you have known it?

A. I think I would have been likely to.

Q. 57. State by what power Benson's machinery was run while he was in the shop of the Buxtons?

A. Driven by a steam engine.

Q. 58. In what shop was this engine?

A. In the rear part of the wood shop.

Q. 59. What kind of an engine?

A. One of the Colligan make—boiler with engine attached to boiler—on top of it, a portable engine; I think they called it about an eight horse-power.

Q. 60. State when, if you can, that engine was put into the wood shop.

A. It would be my opinion now that it was put in in 1857; not later than 1858.

Q. 61. State whether or not the engine you have described was the first engine used in the Buxtons' shop on Main St.

A. Well, they had two different engines in there; whether this Colligan engine was the first or not I couldn't be positive.

Q. 62. State whether they had there more than one engine in use at the same time.

A. I think not.

Q. 63. State, as near as you can, how far it was from where the engine stood in the wood shop to the west end of the brick blacksmith shop.

A. I think it was probably from seventy-five to eighty feet from where the engine stood to the west end of the brick shop.

1731 Q. 64. State, as near as you can, how far it was from where the engine stood to the nearest point of the mill-race?

A. Probably not over five or six feet; very near it, anyway.

Q. 65. State whether or not the mill-race crossed the premises occupied by the Buxtons; if so, where, with reference to the wood shop.

A. It run across the lot under the rear of their wood shops in an angling direction from the southeast to the northwest.

Q. State about how wide and deep the race was where it crossed the Buxtons' premises?

A. It might have been about twelve feet wide, about a foot deep at low water, ordinarily.

Q. 67. About how far from the brick blacksmith shop of Buxtons was the mill of Hurd and Gates?

A. About, I should judge, two hundred feet; perhaps a little more.

Q. 68. State whether or not the mill occupied by Hurd and Gates is now standing where it then did; and, if not, what has become of it?

A. It is not standing; it had burned up. The brick and stone were put into a mill now standing on the other side of the creek.

Q. 69. State, if you can, the year and the month that the mill was burned.

A. The first one was burned October, 1859; the next the 13th of October, 1865.

Q. 70. State whether or not you were present at the burning of the mill in October, 1859?

A. I was.

Q. 71. State from what source or sources water was obtained for the purpose of extinguishing the fire.

A. I could not state; I did not see any water used; I understood it was taken from the race.

1732 Q. 72. State whether or not you pumped any water from any pump or well back of the brick blacksmith shop to be used in extinguishing the fire?

A. I did not.

Q. 73. State, if you know, what became of the lathe run and operated by Benson while he was in the shop of Hurd & Gates, and while he was in the shop of the Buxtons?

A. I bought it after that, kept it perhaps near nine years, and sold it to a man in Cattaraugus county.

Q. 74. State of whom you purchased it?

A. Of C. & T. Buxton.

Q. 75. State whether the negotiations you had in purchasing it were with one or both of the Buxtons?

A. I think I done the trading with T. H. Buxton.

Q. 76. State whether or not at the time you purchased this lathe it had any dies, plates, or attachments for cutting screw threads on gas pipe?

A. It had not.

Q. 77. State, Mr. Hurd, whether or not you are acquainted with what is known or called the driven well?

A. I am somewhat so.

Q. 78. State whether or not you have seen and used them.

A. I have seen them, but never used them much.

1733 Q. 79. State where you first saw a driven well.

A. In the village of Warsaw, in front of the Brick Hotel horse barn. The hotel was then kept by William Bingham.

Q. 80. State, if you know, by whom this well was put down.

A. I did not know the men; they were strangers to me.

Q. 81. State whether or not you saw the well put down, or any portion of it.

A. I saw them driving an iron rod, in the first place; that was pulled out of the ground and the pipe put in; it stood there with a pump on it some time; I couldn't tell how long.

Q. 82. Did you see water pumped from it?

A. I don't think I did; I have no recollection of it.

Q. 83. State, if you can, how many were present at the putting down of this well.

A. Well, I couldn't tell the number; there were a few men there; there might have been a dozen.

Q. 84. State whether or not you heard it talked of by the people there as being a novelty and a new invention.

A. There was considerable talk about it being something new and something cheap in wells.

1734 Q. 85. State whether or not you have ever seen or heard of a driven well prior to that time.

A. I never had.

Q. 86. State when and where you next saw a driven well.

A. I saw them there in the village of Warsaw; I could not state the time; it was after that, however.

Q. 87. State whether or not, while you were at Warsaw, you were acquainted with John West.

A. I was.

Q. 88. In what business, if any, was he engaged?

A. When I first knew him he was farming; I think the next thing I knew of his doing he was driving wells; then he kept a billiard saloon, a good deal of the time doing nothing.

Q. 89. State whether or not you learned the fact that John West had or claimed to have the right to drive these wells in the village of Warsaw.

A. I did. I understood so.

Q. 90. State, if you can, about what time, with reference to the time you saw this well put down near the hotel barn, John West commenced driving these wells.

A. I don't know as I can answer that correctly; it might have been six months; it might have been a year; I could not tell you.

1735 Q. 91. State whether or not, during the time you were in the mill in the rear of Buxtons' shop, as you have stated, there was any driven well outside the brick blacksmith shop of the Buxtons at or near the west end of the same.

A. I have no recollection of ever seeing any.

Q. 92. If there had been one there would you have known it?

A. I think I should.

Q. 93. State whether or not there was a time when an extension or addition was built to the brick blacksmith shop of the Buxtons; and, if so, at what time?

A. There was an addition put on the west end. The exact year I could not tell, but it was after 1860.

Q. 94. State whether or not a driven well could have existed and been in use back of the blacksmith shop or near the west end of the same from 1858 to the time of the building of this extension or addition to the shop, which you say was after 1860, without your having known it.

A. I hardly think it could, yet it might have been so; I think I should have known it if it had been there.

6 o'clock p. m.—Further examination postponed until 9 o'clock Friday morning, at the same place.

1736 JULY 2D, 1880—9 a. m.

Parties met pursuant to adjournment.

Q. 95. State, Mr. Hurd, if you can, the year in which the gas company commenced putting in its works in the village of Warsaw.

A. In the year 1859, I should say.

Q. 96. State whether, while you were engaged in business in Warsaw, you had occasion to obtain for use in your shop any gas pipe with screw thread cut upon it.

A. I did.

Q. 97. State where you obtained the pipe and where you had the threads cut upon it.

A. We got them in Buffalo and had them fitted there.

Q. 98. How far is Buffalo from the village of Warsaw?

A. About forty-five miles.

Q. 99. State why you sent to Buffalo for the pipe and had it fitted there.

A. Because we could not get them any nearer; we could not get them at home.

Q. 100. State whether or not gas pipe was kept for sale in the village of Warsaw prior to the time the gas company commenced work there.

A. I knew of none being kept there.

Direct examination of witness here closed.

1737 Cross-examination of witness by Mr. LAKE, one of defendant's counsel:

X Q. 1. When did you first go into business in Warsaw in the planing-mill?

A. In Warsaw village in 1854.

X Q. 2. Who were the company at that time, who you were in with?

A. My father, Chester Hurd, my brother, Ira N. Hurd, and myself.

X Q. 3. When was the name of the firm changed, and who were the members after the change?

A. Changed in 1855; in January, I think; names, Seth M. Gates, Chester Hurd, Allen Y. Breck, and Chester P. Hurd.

X Q. 4. Where was your mill at that time, in reference to the shops occupied by C. & T. Buxton?

A. It was in the rear of Buxtons', almost directly in the west.

X Q. 5. Did you get to your mill by a lane running on the north side of Buxtons' shops?

A. We did.

X. Q. 6. Was there any other road to the mill?

A. None.

X Q. 7. How wide was this lane?

A. I should think, probably, about fifteen feet.

X Q. 8. What was on the north side of the lane?

A. A dwelling-house.

X Q. 9. Who owned that house?

A. I think at the time it was first put in—when the mill was built—a man by the name of De Witt owned it.

X Q. 10. Did not Buxtons have a house for storing their finished work north of the dwelling-house?

A. They did.

X Q. 11. When was that built?

A. I should think in 1851 or 1852.

X Q. 12. Was that built before they had their wagon shops and blacksmith shop south of this lane?

A. I think not.

X Q. 13. On the south side of this lane that went to your mill and commencing on the east end of the lane on Main street, will
1738 you now state the different shops that the Buxtons had in 1858, and give their use in the order of their shops and the distance of each to the other?

A. The first shop was their wood-working shop, standing on Main street; joining and in the rear of this was their engine shop and machinery, lathes, and saws; about 30 or 35 feet west of that was their brick blacksmith shop; west of that, perhaps about 50 feet, was another wood blacksmith shop; that was all the shops they had.

X Q. 14. Where was the well at which you say they used to water horses and get water for setting tires?

A. About twenty feet in southwest direction from the corner of the brick blacksmith shop.

X Q. 15. Was there any other well on the premises?

A. I don't think there was at that time; I knew of none.

X Q. 16. How long had the wood blacksmith shop been there, and how long did it stay after 1858?

A. Well, I couldn't give the exact date of its being put there, but it was after our mill was built; it stood there until the 13th day of October, 1859.

X Q. 17. Was it used as a blacksmith shop until Oct. 13th, 1859?

A. I think not, all the time.

X Q. 18. When did it cease to be used as a blacksmith shop?

A. Well, that, sir, I couldn't state; it was used by a man by the name of De Witt as a custom shop; then it was used by the Buxtons for ironing their wagons, but whether they used it up to the time it was burnt I could not say.

X Q. 19. Was their shop burned at the same time your mill was burned the first time?

A. It was.

X Q. 20. Was it at this fire that you say you did not see any water used to extinguish the fire?

A. It was.

X Q. 21. Were you present at the fire?

A. I was.

X Q. 22. Was not there a line of men formed from your shop southwest to Allen's creek or Oatka creek carrying water to the fire?

1739 A. I saw men; no line formed that I am aware of.

X Q. 23. Was not there a line formed from the mill-race near the Baptist church to your shop or mill, carrying water to the fire?

A. I don't think there was.

X Q. 24. Were you around the mill while it was burning, and if there had been a line of men from either of these places with pails conveying water to the fire would you have seen them? Explain fully.

A. I was around the mill—that is, on the south side of it. There was no line formed there. There wasn't a dozen men in the yard. With reference to the other line, I can give you my reasons for there not being any line. Buxton had a pile of lumber extending along the line between our lot and his, and between the mill lot and the race; that was all on fire, and it would have been impossible to have got near the mill with water or anything else from that side.

X Q. 25. Was there a line of men carrying water from the race near the Baptist church to extinguish the fire in Buxton's lumber?

A. I know nothing, only by hearsay. I saw no line formed. I was not there.

X Q. 26. Was you so that you could have seen a line of men if they had been formed from the Oatka creek to convey water to your mill while it was on fire?

A. I was. I think I should have seen it if there had been any.

X Q. 27. In going to your mill from the time you built it to the time you finally left it did you at all times pass along the lane north of Buxtons' shop?

A. Not at all times, but as a general thing we could get there no other way without trespassing on somebody else's property.

X Q. 28. Was there a well on the north side of this lane in the rear of the dwelling-house you say was there?

A. I would not be positive about that. I think there was.

X Q. 29. How did they get water from it if there was a well there?

A. I couldn't tell you.

1740 X Q. 30. In going to your mill did you pass between the brick and wood blacksmith shops before the wooden shop was burned?

A. Not necessarily. I might have done so sometimes.

X Q. 31. Was that space open or closed by a fence?

A. Open.

X Q. 32. Where did the Buxtons set their tire in 1858 and 1859?

A. I think directly south of the wood blacksmith shop.

X Q. 33. Did they have a pit or cistern there to hold water to use in setting tire?

A. They did.

X Q. 34. How was that cistern filled?

A. Filled through wooden pipes from the race.

X Q. 35. When was this cistern put there?

A. I could not give the year, but I think it was after De Witt left it and when they occupied it themselves, perhaps in 1856 or 1857.

X Q. 36. While Elihu R. Benson worked in Buxtons' shop did he do any work for your firm? If so, state what he did for you.

A. The only item I can remember now was making blind staples. He used to do our repairing; some jobs we had to do.

X Q. 37. Did he do all your repairing of all kinds?

A. I believe he did not do it all.

X Q. 38. What power did you use to run your mill?

A. Steam.

X Q. 39. Where did you get the water for your mill?

A. From a well situated in the engine-room, between the boiler and the engine and partly under the engine.

X Q. 40. Did you use that water for drinking purposes?

A. We did at first, but it soon got foul and we could not use it.

1741 X Q. 41. Where did you get water for drinking purposes?

A. We got it in different places. When the water in the creek was low we got it from a spring across the creek, south of the mill; sometimes we got it at Buxtons' pump; I believe we got some sometimes from Breck's well, north of the mill.

X Q. 42. How far was Buxtons' pump from the mill?

A. In a direct line 200 or 250 feet; not over 250 feet.

X Q. 43. Is this the well that you say was southwest of Buxtons' brick blacksmith shop.

A. It is.

X Q. 44. Do you know of more than one pump being in that well?

A. I think there was two.

X Q. 45. What kind of a pump was there in 1858?

A. I think that the first pump I saw there was the iron pump I mentioned yesterday; I could not say what was there in 1858.

X Q. 46. Did you ever see this well without a pump in it?

A. I have; I have seen it without a pump.

X Q. 47. Give the time when, as nearly as you can.

A. I don't think I could give any definite time.

X Q. 48. Now, is it not possible that Mr. Buxton had a pump between the wooden and brick blacksmith shops and you not now remember it?

A. It is not very probable that he did; it is barely possible.

X Q. 49. It is now more than twenty years since the wooden blacksmith shop was burned, according to your testimony, and is it not probable that you have forgotten some of the things that were around there at that time?

A. It might be possible that I have forgotten some things; I was as familiar with Buxtons' shop as I was with my own.

X Q. 50. How came you to be so familiar with Buxtons' shop?

A. They done our blacksmith work.

X Q. 51. Did that make you familiar with all their shops?

1742 A. Not that alone.

X Q. 52. What did make you familiar with their shops, then?

A. I was in and out every day, and I helped them frequently in fixing up their machinery; they did our turning.

X Q. 53. What machinery did you fix for them?

A. I put up their line shafting—straightened them up; put up their pulleys—straightened them up.

X Q. 54. How many times did you fix up their line shafting and pulleys?

A. I remember but one circumstance.

X Q. 55. Was that when it was put in new, or when it had run awhile?

A. It had been run awhile.

X Q. 56. When was this that you fixed their line shafting and pulleys?

A. I don't think I could give you the date.

X Q. 57. Give the year, as near as you can.

A. I don't think I could do that.

X Q. 58. You say they had screw plates and dies in their shop to cut screw threads on inch and a quarter iron. For what purpose did they use such large plates and dies?

A. Cutting the threads on the ends of wagon axles.

X Q. 59. Could not the same plate and dies be used to put a screw thread on a pipe of the same diameter as the rod cut by them?

A. It might be used, but it would very likely cut the pipe off, the thread was so coarse.

X Q. 60. Could not these dies be used to cut a light as well as a deep thread?

A. Not and make a perfect thread.

X Q. 61. Do you mean to say that the same dies cannot cut a light and a deep thread, and yet both be used?

A. I mean to say it will always cut the same kind of a thread.

1743 X Q. 62. Cannot you cut a thread with the same dies either shallow or deep?

A. Not and have it a perfect thread.

X Q. 63. Cannot you cut either shallow or deep and have it so it can be used?

A. You can if the thread on the female screw is perfect and sharp.

X Q. 64. How do you know that the Buxtons had no dies for cutting screw thread on pipe?

A. I know that I never saw any there, and that after the gas works started we all borrowed the gas-works dies; I borrowed them and the Buxtons borrowed them.

X Q. 65. When did you know of the Buxtons borrowing the gas works dies?

A. When they put up their Colligan engine they had in there, or when they fixed it up and repaired it; whether it was when they first put it up or repaired it I cannot say.

X Q. 66. What year was it you saw them use those gas-pipe dies?

A. I can't fix the date.

X Q. 67. Was it while they had their first engine in there?

A. I think it was the second.

X Q. 68. I understood you in you direct examination to state that they put in their first engine in 1857 or 1858; is that correct as to time?

A. I think that is very near correct.

X Q. 69. How long after that was it that they put in the second engine? Give the time as nearly as you can.

A. I am not certain but that it was the second engine that they put in at that time, but I would not be positive.

X Q. 70. Was it in 1857 or 1858 that you saw them using the gas company's dies?

1744 A. It must have been after 1859; the time the gas works started.

X Q. 71. Well, then, what year was it that you saw them use those gas-works dies? Give it as nearly as you can.

A. I could not give any definite date.

X Q. 72. What were they doing with them?

A. Cutting pipe.

X Q. 73. For what purpose were they using the pipe?

A. Well, I suppose they were using it for their engine, fixing it up or repairing it; they were doing something about it; I could not tell what.

X Q. 74. Was the engine they were then at work at new or old?

A. It might have been two or three years old; it could not have been a very old one.

X Q. 75. Do you now remember from its looks as you saw it then whether they were setting up a new engine or repairing an old one?

A. I don't think I do.

X Q. 76. Did you see them get these gas-pipe dies from the gas company or works?

A. I did not.

X Q. 77. Did they tell you that they came from the gas works?

A. They did not.

X Q. 78. After Buxtons built the extension to their brick blacksmith shop did they have a well in the shop?

A. I believe they did.

X Q. 79. Was not that well in the new part of the shop?

A. I should think it was, from my recollection now.

X Q. 80. When was that well put in there?

A. Probably after 1859; in 1860 or 1861; I could not be positive as to the time.

X Q. 81. Did you see it made?

A. I think not.

1745 X Q. 82. What kind of a well was that?

A. The pump stood on a pipe, but what was below the floor I don't know.

X Q. 83. What kind of a pump was it?

A. I think it was one of those cast-iron pitcher pumps.

X Q. 84. Was the pipe below the pump galvanized?

A. I don't think it was, but I would not be positive about it.

X Q. 85. When did you quit living at Warsaw?

A. November, 1871.

X Q. 86. Have you been back there frequently since?

A. Two or three times a year, perhaps.

X Q. 87. Do you go up to this shop of Buxtons' whenever you go back there?

A. I generally go past it, and have been in it perhaps 2 or 3 times since '71; I don't know that I have been in his old shop since 1871; I mean his present shop.

X Q. 88. How far is his present shop from the old shop or shops he occupied in 1858 and 1859?

A. I should think not over 20 feet.

Further examination postponed until 12.30 p. m.

ONE THIRTY P. M.

Parties met pursuant to adjournment.

X Q. 89. In going along this lane north of the shops of Buxtons did you cross the mill race?

A. Yes, sir.

X Q. 90. What kind of a bridge was there over the race in 1858?

A. A plank bridge—covered with plank.

X Q. 91. Was not this race covered with large flat stones, with gravel over them, making the bridge in the lane north of Buxtons' shop in 1858 and 1859?

A. It was covered with plank at one time, open by Buxtons' shop at one end and toward tne dwelling-houses at the other; water could be seen at each end; it was taken up two or three times; we furnished plank once to relay it; it might have been stone after that.

1746 X Q. 92. Was it covered with plank or stone when your mill was burned the first time, which you say was in October, 1859?

A. It is my opinion it was covered with plank; I am not positive about it.

X Q. 93. When did Mr. Breck go out of your firm?

A. I think in the forepart of 1859.

X Q. 94. Do you remember now whether the bridge across this race was stone or plank at that time?

A. I do not.

X Q. 95. Do you remember of there being a stone bridge over this race at any time in this lane?

A. I do not; I don't know whether it is stone now or not?

X Q. 96. What year did you buy the Benson lathe of Buxton? State as near as you can.

A. It was about December 1st, 1859.

X Q. 97. What year did Darling put in his gas works?

A. I can't tell definitely; about 1856–1857, perhaps.

X Q. 98. What business was Mr. Darling in at that time?

A. Banking.

X Q. 99. Did these gas works supply gas to his house and his bank?

A. I think nothing but his house.

X Q. 100. How far from his house was his bank?

A. About a quarter of a mile, I should judge.

X Q. 101. Was any other place supplied with gas from these works except his house?

A. None that I knew of.

Cross-examination rests.

Redirect examination by Mr. BARTLETT:

R. D. Q. 1. State, Mr. Hurd, whether or not you are a machinist by trade.

A. I formerly worked at that business—followed it for several years.

1747 R. D. Q. 2. State whether or not you ever saw any well or pump in the brick blacksmith shop of Buxtons prior to the time the extension or addition was built to the shop.

A. I don't think I did.

R. D. Q. 3. Do you know when the addition or extension to the blacksmith shop was built?

A. I could not fix the time.

R. D. Q. 4. You stated that you saw Buxtons using the gas company's tools about their engine; state how you knew they were the gas company's tools?

A. I have borrowed and used the same tools and recognized them.

Recross-examination:

R. X Q. 1. Had these tools any mark on them by means of which you could identify them?

A. No particular mark, only when a man uses a tool a few times he becomes familiar with it and can identify it wherever he sees it.

R. X Q. 2. Are not gas dies made solid so that you can cut but one size with them?

A. As a general thing they are; they had one or two sets there made in pieces which you could vary the size of a little.

R. X Q. 3. What sizes could they cut with these sets that were made in pieces?

A. I think the largest they could cut was two inches, and so on down to an inch and a quarter. I have used them on inch and a half and two inches.

R. X Q. 4. Would not these dies cut a screw thread on solid iron rods as well as on pipe?

1748 A. Just as well on solid as on pipe.

On reading over the answer to the 60th direct interrogatory the witness states that in looking over an old cash-book he finds an entry from which he judges the engine was put in some time after November, 1857.

(S'g'd) C. P. HURD.

Sworn to and subscribed before me this 2d day of July, 1880.

(S'g'd) ARTHUR E. CLARK,
Notary Public.

1749 Then came JOHN WEST, who, being duly sworn, testified as follows:

Q. 1. State your name, age, and residence.

A. John West; age, 49; residence, Warsaw, Wyoming county, New York.

Q. 2. How long have you resided in Warsaw?

A. Twenty-eight years.

Q. 3. Are you acquainted with Chauncey C. Buxton and Timothy H. Buxton; if so, how long have you been acquainted with them?

A. Twenty-seven or eight years; that is as near as I can tell.

Q. 4. State whether or not at any time Chauncey C. and Timothy H. Buxton had been engaged in business at Warsaw; if so, state the kind of business in which they were engaged.

A. They were; in manufacturing wagons, ironing wagons, shoeing horses, part of the time. They used to keep men to shoe horses part of the time, because they have shod mine.

Q. 5. Whereabouts was their place of business?

A. It is the business part of Main street, west side of the road.

Q. 6. State where this place of business was, with reference to Livingston street, in the village of Warsaw.

A. Right west, nearly opposite—right across Main street; Livingston street runs east; this was right across Main street, on the opposite side—on the west side of Main street.

Q. 7. State whether or not the Buxtons had any other place of business in the village of Warsaw other than the one you have described during the time you knew them where they manufactured wagons and did blacksmithing.

A. Not any.

Q. 8. State, if you can, how many different buildings they occupied.

1750 A. They occupied a wooden building in front; the blacksmith shop in the rear of that—brick, I think, part wood; then they built a big wooden building for a show-room in front, now used by Kellog; upper part used as paint shop; that was some time after they had been in business. I don't know as the upper part was used as a paint shop; it may have been in the upper part of the old building they used first.

Q. 9. State whether or not you are acquainted with what is called and commonly known as the driven well.

A. I am.

Q. 10. State whether or not you have been engaged in putting down those wells; if so, during what time?

A. I have, since 1865.

Q. 11. State where and when you first saw a driven well.

A. In 1865, in Warsaw, near the brick hotel, on the corner near the foot of Genesee street, just over the walk off of Main street.

Q. 12. State, if you can, the time in 1865 when you saw this well.

A. I think it was in August; it might have been the last of July or the first of August; that is as near as I can get at it.

Q. 13. State, if you can, by whom this well was put down?

A. There was three men from Bath, seems to me; I think that was the place; the head man's name was Emmett Legg; the other two I can't recollect; it was either Bath or Penn Yan, one of them places, I can't tell which; I rather think it is Penn Yan.

1751 Q. 14. State whether or not you saw this well when it was driven.

A. I did.

Q. 15. State, if you can, how many were present at the time this well was driven.

A. I should think there was a hundred there; there might be more.

Q. 16. State whether or not this well was talked about by the people there as being a novelty and a new invention.

A. It was.

Q. 17. State whether it was talked about a great deal or not.

A. Yes, there was a good many talked about it.

Q. 18. State whether or not you ever knew or heard of there being such a well in the village of Warsaw prior to that time.

A. I never did.

Q. 19. State whether or not at any time you obtained the right to drive these wells in the village of Warsaw. If so, at what time?

A. I did, in 1865, about the time that well was drove by the brick hotel we spoke of, a few days afterwards.

1752 Q. 20. State whether or not you drove any wells in the village of Warsaw; and, if so, about how many?

A. I can't tell how many; I should think from 75 to 100; it might be more than that; I could not tell, it has been so long.

Q. 21. State whether or not you drove any well or wells for the Buxtons, Chauncy C. and Timothy, or either of them; if so, how many?

A. I have driven three.

Q. 22. State where you drove them.

A. One in his blacksmith shop, in the rear of his wagon shop; one on Main street, to a private house north of the village, the business part; one a little south of the blacksmith shop and a little west of the shop, near a little house in the rear of the shop.

Q. 23. State which well you first drove.

A. The blacksmith shop.

Q. 24. State who spoke to you or engaged you, if any one, to drive the well in the blacksmith shop.

A. Timothy Buxton.

Q. 25. State, as near as you can, when it was that you drove this well in the blacksmith shop.

A. I think it's 1867; in the fore part of 1867, I know.

1753 Q. 26. State, if you can, anything that Timothy H. Buxton said to you at the time he engaged you to put down this well at the blacksmith shop.

A. He took me into the shop and showed me where he wanted the well; asked me if I thought I could make a drive well there; I told him I thought I could; said he had a good well—a dug well—just outside of the shop, plenty of water, but it got dirty, and thought if he had a drove well inside it would be better for his boys, handier——

1754 Q. 27. State who furnished the pipe for the well you say you put down for Buxton in the blacksmith shop.

A. I furnished it.

Q. 28. State how much, if anything, you were paid for putting down this well.

A. Seventeen dollars and a half.

Q. 29. State who furnished the pump for the well, if any was used upon it.

A. He paid for the pump, I think; I went to the store and got it and put it on; I was not to furnish the pump.

Q. 30. State how you put it down, whether you were to have so much a foot or so much for the well.

A. I was to have a dollar and a half a foot.

Q. 31. State whether or not that was the price you then had for putting down these wells.

A. It was a dollar and a half a foot.

Q. 32. State who, if any one, paid you for putting down the well in the blacksmith shop.

1755 A. Timothy H. Buxton.

Q. 33. State who, if any one, paid you for putting down the other two wells which you say you put down for Buxton.

A. Timothy H. Buxton.

Q. 34. State what price he paid you for putting down the other two wells.

A. One dollar and a half a foot for one and a dollar a foot for the other; it was in a peculiar place.

Q. 35. State whether or not it was in the brick blacksmith shop of Buxton's that you put this well down; and, if so, in what part of the shop?

A. It was about one-third of the way from the front door of the shop and between the two first forges, on the north side of the shop, in the brick shop.

Q. 36. State, if you can, who was present at the time of the putting down of this well in the blacksmith shop.

A. Timothy Buxton was there; George Baker was there; there was other hands in the shop who I can't remember; George assisted me, and I know he was there.

Direct examination rests.

Cross-examination by defendant's counsel:

X Q. 1. What business were you in before August, 1865?

A. I think I was working for Uncle Sam in the army two years.

X Q. 2. What business were you in before you went into the army?

A. I was farming and working at carpenter work—building barns.

X Q. 3. Of whom did you get the right to put down wells in Warsaw?

1756 A. Emmett Legg and his partner; I don't know their names; I have forgotten.

X Q. 4. Did they claim to have a patent on the process of making a well?

A. They did.

X Q. 5. Who was the patentee of the patent they claimed under?

A. I think it was Suggett; I won't be sure.

X Q. 6. Did they claim to sell to you James Suggett's patent for putting down wells?

A. I wouldn't say positively it was Suggett; some other man claimed the patent, but I think it was Suggett.

X Q. 7. Was the other man's name Byron Mudge?

A. I don't think it was.

X Q. 8. When was it these men sold you the patent?

A. It was in August, as near as I can get at it, in 1865.

X Q. 9. Have you the deed they gave you?

A. I have not.

X Q. 10. What has become of it?

A. I let a man take it, and when I called for it he could not find it; it was Elijah Andrews, of Warsaw, I let have it.

X Q. 11. When did you let him have it?

A. It was about four years ago, I think, as near as I can get at it.

X Q. 12. When you drove this first well for Buxtons in the blacksmith shop how did you drive it?

A. As near as I can tell, between eleven or twelve feet; that was about the depth we had to go to get wells there; I can't remember, it was so long ago.

X Q. 13. Did you put in galvanized tubing in that well?

A. I don't recollect; I might or might not, as I used both for wells.

X Q. 14. What kind of a point was on the tube?

A. Cast-iron point.

X Q. 15. How was it fastened to the tube?

A. Riveted in.

X Q. 16. How many holes were drilled in the tube above the point?

A. Could not tell how many.

1757 X Q. 17. Tell the number as near as you can.

A. Forty-six holes, as near as I can get at it.

X Q. 18. What kind of screens over these holes?

A. Not any.

X Q. 19. How large were the holes?

A. Sometimes I used from a quarter to an eighth of an inch; I can't tell what I used in that one.

X Q. 20. How long was the point in which the holes were drilled?

A. There were not any in the point; there were holes in the tube; when I first commenced using I used two and one-half feet; in that one I think about two feet.

X Q. 21. Was this tube all one piece?

A. I think not; I am not certain.

X Q. 22. How far from the east end of the brick blacksmith shop was it that you drove this well?

A. I should think it was 20 or 25 feet; I should guess 25 feet.

X Q. 23. How far was it from the west end of that shop?

A. I should think 50 feet; certain 40 feet; I can't tell exactly.

X Q. 24. In what part of the shop were the front doors you speak of?

A. East end, I think; they were a little near the south corner; still they may have been in the middle.

X Q. 25. In going to the street from their blacksmith shop on which side of the wood shop did you go?

A. On the north side; if I was going with a team I would go on that side.

X Q. 26. Did you cross any mill-race in going to the street from the blacksmith shop?

A. No.

X Q. 27. Do you live at Warsaw, N. Y.?

A. I do.

X Q. 28. How far is that from Batavia, where we now are?

A. Twenty-eight miles by rail, I have heard.

X Q. 29. How came you to come here to testify in this case?

A. At Mr. Bartlett's request.

1758 X Q. 30. Was any subpœna served on you to come to this place?

A. There was not.

X Q. 31. What did Mr. Bartlett say was the reason he wanted you to come here to testify?

A. He did not say any reason.

X Q. 32. Did not he proffer to pay your expenses here?

A. No, sir.

X Q. 33. Did not he give any reason for wanting you to be examined in Batavia instead of Warsaw?

A. Not any.

X Q. 34. How did he notify you to come here?

A. He telegraphed to me.

X Q. 35. Why did you charge Buxton one and a half dollars per foot for one well and only a dollar a foot for the other?

A. It was at the house where they had filled up an old well with gravel; that is what they told me; Chauncy told me so; and it wasn't so much work to drive it—the labor wasn't so much.

X Q. 36. How deep was that well?

A. About seventeen feet, as near as I can remember.

X Q. 37. How deep was the well that you drove just north of the main business part of the village?

A. That was the one I was speaking about.

X Q. 38. How deep was the one you drove at the little house south and west of the blacksmith shop?

A. About ten feet.

X Q. 39. How far was that from the blacksmith shop?

A. About ten rods, as near as I can get at it.

Cross-examination here rests.

Redirect by Mr. **Bartlett**:

R. D. Q. 1. State whether or not the mill-race crosses the Buxton premises?

A. Yes, sir.

R. D. Q. 2. Do you know just where it crosses?

1759–1764 A. Well, I don't exactly; at the back end of the shop.

Redirect rests.

(S'g'd) JOHN WEST.

Sworn to and subscribed before me this 2d day of July, 1880.

(S'g'd) ARTHUR E. CLARK,
Notary Public.

Dated at Batavia, N. Y., July 3d, 1880.

(S'g'd) ARTHUR E. CLARK,
Notary Public.

(End.:) U. S. circuit court, district of Iowa. Wm. D. Andrews *et al.* ag'st John Thee *et al.* Deposition- of Chester P. Hurd and John West, examined in behalf of complainants. Filed Oct. 19, 1880. E. R. Mason.

1765 And then AMBROSE J. ARMSTRONG, being produced as a witness on the part of the complainants and duly sworn, testified as follows:

Q. 1. State your name, age, and place of residence.

A. A. J. Armstrong; age, 53; residence, Warsaw, Wyoming county, N. Y.

Q. 2. What is your business?

A. Builder.

Q. 3. How long have you resided at Warsaw?

A. Forty-nine years.

1766 Q. 4. State whether or not you know and are acquainted with what is commonly known as the "driven well."

A. Quite well acquainted with it.

Q. 5. State when and where you first saw a driven well in the village of Warsaw.

A. Opposite, at that time, what was called the Perry Hotel, on Main street; that was in 1865; I think some time in the fall or the latter part of the summer.

Q. 6. State whether or not you had seen or heard of there being a driven well in Warsaw prior to that time.

A. I had not; none to my knowledge.

Q. 7. State whether or not, at the time this well was put down of which you speak, there had been a number of people there to see it; if so, state, as near as you can, the number.

A. There was quite a number there; people were coming and going, but how many were there I can't state; I should think a dozen or fifteen all the while.

Q. 8. State whether or not the well was talked about by the people here as being a novelty and a new invention here.

A. It was talked about considerable; my attention was called to it by the conversation on the streets.

Q. 9. State whether or not you are acquainted with John West.

A. I am.

Q. 10. State whether or not you at one time learned the fact that John West had or claimed to have the right to put down these drive wells in the village of Warsaw; if so, state when it was, with reference to the time you saw this well spoken of by you.

1767 A. The first I knew of his claiming the right was in 1879.

Q. 11. State when you first knew of West's putting down wells.

A. In 1865.

Q. 12. State whether or not you have in your business, at different times, had occasion to use these wells.

A. I have, quite a number of times.

Q. 13. State when you first commenced to use them.

A. It was in May, 1866.

Q. 14. State whether or not you built the Presbyterian church in this village; if so, state when it was.

A. I did; built it in 1864 and finished it in 1865.

Q. 15. State who, if any one, had charge of and looked after the building for the society.

A. They had a building committee and an architect. The architect was A. J. Warner, of Rochester, N. Y. The building committee was Timothy H. Buxton, Samuel Fisher; there was another I don't remember.

Q. 16. What is this church, a brick church?

A. What is called a brick church.

Q. 17. State whether or not you had any talk with the committee or any members of the committee as to how and where you should obtain water for use in the building of this church; if so, state what member of the committee.

1768 A. I had several talks with Mr. Buxton; he was the officating member of that committee.

Q. 18. State how you obtained water for use in the building of that church.

A. By digging a well.

Q. 19. State where the well was dug.

A. In the street in front of the church.

Q. 20. State where this church is situated with reference to the shops formerly occupied by C. & T. Buxton.

A. On the opposite side of the street.

Q. 21. State about how far this well, which you say you dug in front of the church, was from the wood shops of C. & T. Buxton.

A. From 60 to 70 feet.

Q. 22. State whether or not the well that you dug in front of the church was left open after the church was completed.

A. It was not; it was filled up.

Cross-examination:

X Q. 1. When this drive well was put down here in 1865 did not the parties take great pains to advertise it?

A. I don't know how that was; I heard it talked of on the street and went down to see it after it was done.

X Q. 2. Was it put down in a public place?

A. It was.

X Q. 3. Who were the parties that put it down?

A. I don't know; I think West had something to do with it and was there?

1769 X Q. 4. Did you talk with parties about the well?

A. I can't say how that was.

X Q. 5. Did not you hear at the time that these men who put down this well wanted to sell the right to put them down?

A. At the time I supposed that was the object in putting the well down, to sell the right.

X Q. 6. Did you hear that they had sold any right to put down the wells?

A. Not at that time.

X Q. 7. Did you so hear before they left this place?

A. No; I didn't know anything about their selling rights until some time afterwards.

X Q. 8. How long did that well stay where you first saw it?

A. Not but a short time; I should think, perhaps, a month or so.

X Q. 9. Whose patent was it that they were selling?

A. That I don't know.

X Q. 10. Did you learn afterwards whose patent they were selling?

A. No; I couldn't say whose patent it was.

X Q. 11. How long after that was it before you saw another well of that kind?

A. The next one that I saw, that I remember distinctly, was put down the next May.

X Q. 12. Who put that one down?

A. That was put down by John West and Mattison Keeney; Keeney claimed to own the patent.

X Q. 13. Whose patent did Keeney claim to own?

A. I think he claimed it was Green's patent, but still I wouldn't be positive about it.

X Q. 14. Where does Mattison Keeney live now?

A. In Warsaw.

X Q. 15. This, you are sure, was in May, 1866, when you saw Keeney and West put down the well, are you?

A. I am; they put it down for me; it was the first one I ever used.

X Q. 16. Where was it put down?

A. In the village of Warsaw, directly in front of the Congregational church, for the purpose of building that church.

1770 X Q. 17. When you built the Presbyterian church did you have the contract by the job?

A. I did.

X Q. 18. Was the society to furnish you water?

A. They were not.

X Q. 19. How deep did you have to dig for water from the surface at the church?

A. I think about twelve feet.

X Q. 20. When you took the contract of building the Presbyterian church was there not a well on the lot?

A. I think not.

X Q. 21. Was there not a house on the north side of the lot?

A. There was no house on the lot.

X Q. 22. Had there not been a house on the lot before you took the contract to build the church?

A. Before I took the contract there had been two houses on the lot; one was a meeting-house and the other a dwelling-house.

X Q. 23. While the dwelling-house was there where did the occupants get water? Was it not from a well on the lot?

A. I think there was a well at the east end of the house, or thereabouts; when we dug the cellar for the church it came so close to it that we had to fill the well up; they dug the cellar before I had anything to do with the job; before they had commenced working there I had taken the contract; before there was anything done.

X Q. 24. Why did you allow them to fill this well?

A. Because I had nothing to do with it; I had no control over it and should not have used it if it had been there.

X Q. 25. You thought it was cheaper to dig a new well than to bring water from the old one, did you?

A. Yes, sir; if there had been one there; the old one was filled up.

X Q. 26. You say that the well put down in 1865 on the street was the first driven well that you ever heard of in Warsaw; now, is it not possible that there were wells here before that and you not have heard of them?

A. Yes, sir.

1771 X Q. 27. How large was the village of Warsaw in 1865?

A. I should think there were about the same number of inhabitants that there are now—about 2,200, I think.

X Q. 28. How long is the village of Warsaw, north and south?

A. A little over two miles.

X Q. 29. How wide is it, east and west?

A. About three-quarters of a mile; it is a mile and a quarter or a mile and a half.

X Q. 30. This well that you dug at the Presbyterian church, was it stoned up?

A. It was not.

Cross-examination closed.

(S'g'd) A. J. ARMSTRONG.

Sworn — and subscribed before me this 5th day of July, 1880.

(S'g'd) E. M. BARTLETT,
Notary Public.

1772 And then Ira N. Hurd, being produced as a witness on the part of complainants and duly sworn, testifies as follows:

Q. 1. State your name, age, and place of residence.

A. My name is Ira N. Hurd; 50 years of age; Warsaw, N. Y.

Q. 2. State whether or not you are a machinist by trade.

A. I am.

Q. 3. State whether or not you were formerly engaged in running a planing-mill in the village of Warsaw.

A. I was in that business.

Q. 4. State what was the name of the firm by which you were engaged.

A. C. Hurd & Sons first; Hurd & Gates afterwards.

Q. 5. State whether or not you were a member of the firm of C. Hurd & Sons.

A. I was.

Q. 6. State whether or not you are acquainted with Chauncy C. and Timothy H. Buxton.

A. I am.

Q. 7. State whether or not they were formerly engaged in business in Warsaw, N. Y.; if so, give the name of the firm.

A. They were; C. & T. Buxton.

Q. 8. State where the mill of C. Hurd & Sons was located, with reference to the business place of C. & T. Buxton.

1773 A. It was back of Buxtons' shop; had to go by Buxtons' shop to get to it; it was west of Buxtons' shop—a kind of a private lane, I thought it was.

Q. 9. State how many different buildings Buxtons occupied for their business.

A. They had their wood shop, blacksmith shop, and show-room.

Q. 10. State where the blacksmith shop was, with reference to the wood shop.

A. It was right west of the wood shop—between the wood shop and the planing-mill.

Q. 11. State whether the blacksmith shop was wood or brick.

A. I think it was a brick shop.

Q. 12. State where you resided and in what business you were engaged in 1859.

A. I came from the West and got here the 10th day of June, 1859, and a few days after that I went to work in the planing-mill for Hurd & Gates.

Q. 13. Were Hurd & Gates then engaged in running the planing-mill formerly run by C. Hurd & Sons, in the rear of Buxtons' shop?

A. They were.

Q. 14. How long did you continue to work for Hurd & Gates?

A. Until the next May; I worked until the mill burned down, and then helped build up the new one—the machinery in it.

1774 Q. 15. State whether or not during the time you were engaged with Hurd & Gates you were frequently in and out the brick blacksmith shop occupied by the Buxtons.

A. I was.

Q. 16. State about how often, as near as you can.

A. I can't tell exactly; sometimes in and out there every day and sometimes every week; was in there frequently; passed right by there to go to my meals and work; sometimes I was not there more than once a week.

Q. 17. State whether or not you are familiar with the machinery used and operated in the different shops in the village of Warsaw?

A. I think that at that time I knew every piece of machinery in the village of Warsaw and was acquainted with it.

Q. 18. State whether or not there was a time when a company commenced operations for putting in gas works in the village of Warsaw; if so, state as near as you can the time.

A. It is my opinion that they commenced in April or May, 1860; it was, anyway, in the spring of 1860.

Q. 19. State whether or not you were employed by and worked for the gas company.

A. I did.

Q. 20. State whether or not, prior to the time the gas com-
1775 pany commenced operations in the village of Warsaw, there
were in use in the village of Warsaw any dies, plates, or tools
for cutting screw thread on gas pipe.

A. I don't think there was; never knew of any.

Q. 21. State whether or not if there had been any such dies, plates, or tools in use in the village of Warsaw you would have known it.

A. I think I should.

Q. 22. In going from the mill of Hurd & Gates to the blacksmith shop of the Buxtons at what place did you enter the shop?

A. The door was on the west end, southwest corner.

Q. 23. State whether or not you are acquainted with what is commonly called and known as the driven well.

A. I am.

Q. 24. State when and where you first saw a driven well.

—. I think in 1864 or 1865, south of the Bingham House, in the village of Warsaw; I saw some men driving a well there; I stood in the blacksmith shop and saw them drive it.

Q. 25. State whether you had ever heard of or seen a driven well before that.

A. I never had.

Q. 26. State whether or not there were a number of persons present at the driving of this well.

1776 A. Yes; there was a large crowd of them there.

Q. 27. State whether or not this well was talked about by the people present at the time of the driving as being a novelty and new invention.

A. I think it was.

Q. 28. State whether or not during the year of 1859, while you were engaged in the mill of Hurd & Gates, there was any driven well at the west end of the Buxton blacksmith shop.

A. I never saw one there nor heard of one.

Q. 29. Was there any on the premises occupied by the Buxtons during that time?

A. Never saw one nor heard of one.

Q. 30. If there had been a driven well outside of the brick blacksmith shop of the Buxtons, at the west end of the same, during the time you were employed by Hurd and Gates, would you have known it?

A. I think I should.

Q. 31. Could a driven well have existed and been in use outside of Buxtons' blacksmith shop and at the west end of the same during the time you were at work for Hurd & Gates without you having known of it?

A. No.

Direct closed.

X Q. 1. Where were you living in 1858?

A. I was in the western country somewhere; have forgotten where; either Rockford, Ill., or St. Louis, Mo.

1777 X Q. 2. When did you go west?

A. I went west in 1854, but I went to stay in 1856.

X Q. 3. Where did you stay last before you came back to Warsaw in June, 1859?

A. I came direct from Texas.

X Q. 4. How long had you resided in Texas?

A. Not but a few days.

X Q. 5. Where did you go from when you went to Texas?

A. St. Louis, Mo.

X Q. 6. How long had you resided in St. Louis, Mo.?

A. About three months.

X Q. 7. When you came to Warsaw in June, 1859, was the mill of Hurd & Gates then running?

A. I think it was.

X Q. 8. What kind of work were they then doing?

A. All kinds of work—planing lumber, making sash, doors, and blinds, building, putting up buildings by the job.

X Q. 9. What part of the work did you go at?

A. I took the job of making blinds.

X Q. 10. How long did you work at that?

A. I can't say; I took the job of making one hundred pairs of blinds.

X Q. 11. Did you have a room in the mill where you worked at making these blinds?

A. Not separate from the rest; I worked in the general shop with the rest.

X Q. 12. From where you worked could you see the brick blacksmith shop of the Buxtons?

A. I could if I looked out the window, right in plain sight.

X Q. 13. Was there any building west of the brick blacksmith shop before you came to the mill of Hurd & Gates?

A. I think directly west of Hurd & Gates' blacksmith shop was a stable, where Hurd & Breck kept their horses; the mill was a little south of west from the shop, so the stable did not obstruct the view from one to the other; the stable was north of the mill.

1778 X Q. 14. What was the distance from the brick blacksmith shop to this stable?

A. I should think about six or eight rods—maybe ten.

X Q. 15. Was there any building between the brick blacksmith shop and this stable in 1859, when you came from the West here?

A. I don't think there was; Buxton had a lot of oak lumber piled up there, and a shed over it.

X Q. 16. Did this lumber and this shed reach as far north as the land?

A. I don't remember about that.

X Q. 17. Was there a wooden building that was used for a blacksmith shop, about 20 to 50 feet west of the brick shop, in 1859?

A. I have a faint recollection of a building standing in there, but wouldn't be positive one way or the other; it was not used for a blacksmith shop; it seems to me as though one was there.

X Q. 18. If there was a building there what was it used for?

A. I can't tell you; it appears to me as if the building was used for a kind of store-room for old work.

X Q. 19. How far was this building from the stable of Hurd & Gates?

A. That I couldn't tell you; it couldn't have been a great way.

X Q. 20. How far was it from the west end of the brick blacksmith shop?

A. That I couldn't tell you.

X Q. 21. When was this building removed?

A. I don't know.

X Q. 22. Did Buxton have any place for bending tire at the west end of the brick blacksmith shop?

A. I think he did.

X Q. 23. What was it that he had there for bending tire?

1779 A. I don't know that I can explain it, but it was something that he had on the west end of the shop, some pieces that he put up that he bent the tire over. I can't describe them.

X Q. 24. Were these pieces fastened to the shop, or were they a separate thing?

A. I think they were fastened to the shop.

X Q. 25. Did not Buxton set tire in this wooden building west of the brick shop in 1859?

A. I don't know anything about what Buxton did in 1859.

X Q. 26. Where did Buxton get water to use in setting tire in 1859?

A. I remember of his having a tub or a vat, or whatever you call it, west of his blacksmith shop, and I think that he had a connection from that so that he got water from the race.

X Q. 27. Where was this tub set, with reference to the wooden building west of the brick blacksmith shop?

A. Between the two—between the brick shop and the wooden building.

X Q. 28. Then this tub was right west of the brick shop, was it?

A. I think it was; that's my impression now.

X Q. 29. Where was the race you speak of?

A. It was right under the wood shop.

X Q. 30. Which way did that race run?

A. A little west of north.

X Q. 31. How wide and deep was it?

A. I should think it was eight feet wide, probably three feet deep—the ditch was that; the water wasn't over a foot.

X Q. 32. Did this race cross the lane by which you went into the planing-mill?

A. Yes.

1780 X Q. 33. What kind of a bridge was over the race at the lane?

A. I think at that time it was plank and stringers.

X Q. 34. What building was north of this lane in 1859?

A. A dwelling-house.

X Q. 35. Was there a well at this dwelling-house?

A. I couldn't tell you.

X Q. 36. What machinery did Buxton have in his shop in June, 1859?

A. I think he had a wood-turning lathe and a Daniel's planer; think he had a steam-engine; think that Benson worked there upstairs with an engine-lathe; I don't remember of any other machinery.

X Q. 37. Did Benson have any plates and dies for cutting screw threads?

A. Yes.

X Q. 38. How large a bolt could he cut a screw thread on with his plates and dies?

A. Think the largest was ¾ of an inch; might have been a little larger, but I don't remember of his having any larger than ¾ of an inch.

X Q. 39. Did Buxton have any plates and dies for cutting screw threads; if so, how large a bolt could he cut with his plates and dies?

A. I think he had tools for cutting up to an inch; I used to go there to use them sometimes.

X Q. 40. Did Adams & Fargo have any plates and dies for cutting screw threads; if so, how large a bolt could they cut?

A. Never knew of their having any.

1781 X Q. 41. Are you sure that Buxton had no plates and dies for cutting as large as an inch and a quarter?

A. I never saw any such thing.

X Q. 42. Did not a Mr. Darling have gas works put in at his house as early as 1857?

A. I don't believe they were put in as early as that; I remember when they were put in, but don't believe it was early as that; still it might have been; he had them put in a year or so before the others, I know.

X Q. 43. What year did Darling have his gas works put in?

A. I don't know; wouldn't be positive about that.

X Q. 44. State, as nearly as you can, when Mr. Darling had the gas works put in at his house?

A. I wouldn't undertake to tell or set any time; I should think it was a year or two before the other works were put in.

X Q. 45. Was there not a foundry in Warsaw in 1859?

A. Yes, sir.

X Q. 46. Who run it?

A. Garratsee & Morris.

X Q. 47. Did they have any plates and dies for cutting screw threads; if so, how large a bolt could they cut on?

A. They had plates for cutting three-quarters of an inch; I will say seven-eighths of an inch; you could strain it up to seven-eighths of an inch.

X Q. 48. Do you know that that was the largest plate that they had?

A. Yes, sir; I know it.

X Q. 49. Do you know that an inch plate was the largest that Buxton had in 1859?

A. I know his men told me so. I went there to get work done—to borrow it.

1781½ X Q. 50. Who of his men told you that an inch plate was the largest that they had?

A. His blacksmiths; Burr was one. I think he was the spokesman of the crowd.

X Q. 51. Did not they have dies and plates for cutting screw threads on wagon skeins?

A. I think not; not over an inch.

X Q. 52. Is it not possible that there might have been a pump at the west end of the brick blacksmith shop in 1859 and you not now remember it?

A. I don't think that it could; not that kind of a pump—not a drove well.

X Q. 53. Does a driven-well pump differ in its looks from any other pump?

A. The pump don't look any different, but the well does.

X Q. 54. If the pump is set down on the platform, can you tell, by looking at the pump, whether it is a driven well or not?

A. You couldn't unless you could look under the platform.

X Q. 55. Was there any well or pump near the west end of the brick blacksmith shop in 1859?

A. There was a well right at the southwest corner of that shop; a dug well, stoned up.

X Q. 56. What kind of a pump was in that well in 1859?

A. I don't remember; I think there was a wooden pump in it.

X Q. 57. How deep was that well?

A. I should think from 8 to 10 feet; might have been a little more.

X Q. 58. Then you think no other pump could have been in that vicinity and you not now remember it, do you?

1782 A. I don't think it is possible that a pump could have stood there and I not have seen it and remember about it.

X Q. 59. If you did not remember the wooden shop until after your attention was called to it, would a pump have made a greater impression on your mind than the shop?

A. There is something more to it. I had occasion to use a pump. I used to go there to get water to drink, and if there had been a pump there, and I had used it, I should have remembered it; a building is another thing; if there had been one there I should have used it, and I should have remembered it.

X Q. 60. Did you not get water from a spring south of the mills?

A. Some of the time I would and some of the time I wouldn't; some of the time I couldn't get it there.

X Q. 61. Did you sometimes get water at the well of Mr. Breck, north of the mill?

A. I never went there after water; some of the other men might have went there.

X Q. 62. Then you are sure, are you, that after more than 21 years' time you would have remembered all about the pump, if there had been one, west of the brick blacksmith shop in 1859?

A. The burning up of that shop photographed that thing on my mind so that I see everything then as plainly as though it were yesterday.

X Q. 63. When you think that after the burning of the mill and the lumber of Mr. Buxton, and the wooden shop west of the brick shop, that an iron pump standing there would have been indelibly impressed upon your mind, and after twenty-one years' time you could remember it plainly?

A. I wouldn't have any doubt about it; there never was any pump there.

Cross-ex. closed.

R. D. Q. 1. State, if you know, who put Mr. Darling's gas works in his house?

A. It is my impression it was Alfred Wright, of Rochester.

1783 R. D. Q. 2. State whether they were private gas works, used for his house only.

A. They were just for his own use—for his own house.

R. D. Q. 3. State whether or not you at any time put any pump into the dug well back of Buxton's blacksmith shop; if so, state when it was.

A. I put one in there in 1862 or 1863; I won't be sure which.

R. D. Q. 4. Describe the pump which you say you put in the well.

A. It was a force pump, wedged into the well, and worked with a lever on the surface. It was called a force pump and we could throw water with it. The lever was hitched to the pipe and the tube that the water came through worked up and down.

Redirect closed.

R. X Q. 1. Was this the first pump of that kind that was ever in that well?

A. Yes, sir.

Ex. closed.

(S'g'd) I. N. HURD.

Sworn and subscribed before me this 5th day of July, 1880.

(S'g'd) E. M. BARTLETT,
Notary Public.

An adjournment was here taken to July 6, 1880, at 10 o'clock a. m.

1784 JULY 6—10 a. m.

Parties met, and then JAMES O. MCCLURE, being produced as a witness on the part of the complainants and duly sworn, testified as follows:

Q. 1. State your name, age, and residence.

A. James O. McClure; 51; Warsaw, N. Y.

Q. 2. How long have you resided at Warsaw, N. Y.?

A. Fifteen years.

Q. 3. What is your business?

A. Civil engineer and surveyor.

Q. 4. State whether or not you know and are acquainted with what is commonly called the driven well.

A. I am.

Q. 5. State when and where you first saw a driven well.

A. In this village in 1865; it was the latter part of July or first of August, 1865, that those wells were attempted to be put down on the north side of Genesee street, just off from Main street, right near the Bingham House.

Q. 6. State whether or not they succeeded in getting water on Genesee street.

A. Not in such quantities as they desired, owing to quicksand, which clogged the pipe.

Q. 7. State, if you can, what was done with the well or wells which were put down on Genesee street.

A. After pumping for a long time and the sand cutting the valves of the pumps to pieces they drew the pipes and put one down on the west side of the house on Main street and then got water.

Q. 8. State about how long it was after the well was driven on Genesee street before the well was driven on Main street.

A. It is my impression the wells were all sunk in one day; they did not have to drive very deep.

Q. 9. State, if you can, who the parties were that drove these wells.

A. It was a company, but their names escape me—seems to me as though it were Latter & Williams.

1785 Q. 10. State whether you had ever seen or heard of a driven well before that time.

A. I never had.

Q. 11. State whether or not there were a number of persons present at the driving of these wells; if so, state, as near as you can, the number.

A. There were—the number would vary at times; there was a large number when they drove the first well; I should say there were 100 people looking on; it created a good deal of excitement.

Q. 12. State whether or not this well was talked about by the people here as being a novelty and new invention.

A. A great many discredited the idea of getting water that way; I know quite a number were willing to bet their money that they couldn't get water through a pipe in that way; they had never heard of it; the idea seemed preposterous.

Q. 13. State whether or not you are acquainted with John West.

A. I am.

Q. 14. State whether or not you learned at any time that John West had or claimed to have the right to drive these wells at the village of Warsaw.

A. I understood so.

Q. 15. State whether or not John West has been engaged in driving these wells at the village of Warsaw.

A. He put down a well for me in 1868.

Q. 16. State where it was that you learned that John West had or claimed to have the right to put down these wells.

1786 A. Immediately after these men were here in 1865 he showed me his contract, and told me that he had the right to put down these wells in the town of Warsaw.

Direct ex. closed.

X Q. 1. When those men came here in 1865 and put down those wells did not they take great pains to advertise the same and talk about the well to all they met?

A. The matter was thoroughly canvassed; as I think now about it they came here and gave out notice that they were going to drive these wells in this peculiar manner; these men were selling rights for towns.

X Q. 2. Did not they take pains to talk to people about the well, and explain the way to put them down, and urge persons to buy of them?

A. I don't know any further than myself about that matter; I opened the conversation with them myself, when they were driving the first well, and asked as to the depth they would have to go down; I expressed unbelief in their being able to get water from the fact of there being long slots in the pipe at the bottom, and I claimed that the pipe would fill with mud; one of the men says, We can't get water until we get through the mud into the gravel; I then asked him, Supposing you strike no gravel? He said the well would be dry—be a failure—and they would have to try some other place; I asked him when they did strike water to what depth they went; he said, Until we strike water.

X Q. 3. Did not these men talk to all persons about this well and show it in a public place and try to sell the rights?

A. They talked to me about it; did not offer to sell it to me; they drove it in a public place; there were a large number of people there.

X Q. 4. Did they stay there some days; if so, about how many?

A. To the best of my recollection, about a week.

X Q. 5. Was not the Bingham House the principal hotel in Warsaw at that time, and was not the place where they drove the well on the principal business street?

1787 A. It was; and the place where they drove was just off the principal business street.

X Q. 6. The well could be seen from the street, readily, could it not?

A. It could.

X Q. 7. Whose patent was it that they claimed to give John West the right to work under?

A. I don't know.

X Q. 8. Was not the name of the patent mentioned in the contract which you say West showed you?

A. I don't recollect; the contract was shown to me casually; I did not examine it closely.

Cross-ex. closed.

(S'g'd) J. O. McCLURE.

Sworn and subscribed before me this 6th day of July, 1880.

(S'g'd) E. M. BARTLETT,
Notary Public.

1788 JULY 13—11 o'clock a. m.

Complainants appeared by their counsel, S. B. Bartlett, and, no one appearing for the defendant, the examination was held open until 1 o'clock p. m.

At one o'clock p. m. the complainants' counsel appeared, and, no one appearing for the defendant, LUCETTA WINDSOR was produced as a witness for the complainants, duly sworn, and testified as follows:

Q. 1. State your name, age, and residence.

A. Lucetta Windsor; Portageville; age, 77.

Q. 2. State whether or not you formerly resided at the village of Warsaw, Wyoming county, N. Y.

A. Yes.

Q. 3. State when you resided at the village of Warsaw.

A. From 1830 to 1844 I lived in Warsaw village; then we moved onto a farm about three miles southwest of the village and lived there five years; then we moved to Warsaw village and remained until 1854; then we moved on to the farm and remained until 1859; after that I removed to Rushford and lived there until 1862; after that we moved onto the farm and remained there until 1864; in 1864 we sold our farm and moved back to Warsaw village in 1867, and remained there until 1872.

Q. 4. State whether or not you resided at the village of Warsaw at any time during the years 1858 and 1859.

A. No, sir.

Q. 5. State whether or not you are acquainted with Nelson W. Green.

A. Yes, sir.

Q. 6. State whether or not he is a brother of yours.

A. He is.

Q. 7. State whether or not Nelson W. Green was at your house at Warsaw at any time during the years 1858 or 1859.

A. I know he wasn't there.

Q. 8. State where in the village of Warsaw you lived at the time you say you resided there.

A. On the south side of Buffalo street, nearly opposite Timothy H. Buxton.

1789–1792 Q. 9. State whether or not you resided in the village of Warsaw at any time during the years 1858, 1859, 1860, 1861, 1862, or 1863.

A. No, sir; we did not.

Q. 10. State where the farm was on which you say you lived at these different times spoken of by you.

A. In Warsaw, on the west hill, about three miles southwest of Warsaw village.

(S'g'd) L. WINDSOR.

Subscribed and sworn to before me this 13th day of July, 1880.

(S'g'd) E. M. BARTLETT,
Notary Public.

[Endorsed:] Wm. D. Andrews *et al.* ag'nst John Thee. Depositions of witnesses taken at Warsaw, N. Y., on part of complainants. Filed Oct. 19, 1880. E. R. Mason, clerk.

1793 Circuit Court of the United States, District of Iowa. In Equity.

WM. D. ANDREWS *et al. vs.* GEORGE LELAND *et al.*

Testimony for final hearing taken on the part of the complainants, under the 67th rule of practice for the courts of equity of the United States, before me, Leonard A. Giegerich, a notary public, duly commissioned and sworn, in and for the city and county of New York, in the State of New York, at No. 7 Warren street, in said city, under and pursuant to the annexed notice.

1794 NELSON W. GREEN, a witness of lawful age, being duly sworn, in answer to interrogatories, deposes and says as follows, to wit:

Being examined by WM. D. ANDREWS, Esq., he testifies as follows:

Q. 1. What is your name, age, and residence?

A. My name is Nelson W. Green; my age is about 60 years, and my present residence, New York city.

Q. 2. What connection have you with the present suit and with the patent which is the subject-matter of the suit?

A. I am one of the plaintiffs and am inventor and patentee of the driven well on which this suit is founded.

Q. 3. Please state when and on what occasion you first conceived of the invention upon which your patent, reissue No. 4372, dated May 9, 1871, is founded.

1795 A. During a drill of a squad of men in the summer of 1861, the rumor having come to my knowledge that wells and springs in Virginia had been poisoned, by which the Union soldiers were likely to suffer, I said to my drill squad, who were standing about me for the moment, that this could be remedied in this way. Taking a pencil from my pocket sharpened at one end and placing its point in the palm of my hand, I said: Suppose this pencil to be an iron rod sharpened as you see this pencil, and suppose it to be driven in the ground to and into the water and withdrawn and a tube inserted in its place and a pump attached to the tube, we should have a well from which we could draw an abundant supply of water which could not be poisoned. There were present at this conversation, I think, all or most of the members of my drill squad, seven in number, among whom were A. P. Smith, James C. Carmichael, Byron Mudge, A. J. Todd, Dr. Hyatt, Charles M. Newcomb, Heman F. Robinson; this was about the number of persons present; but little discussion was had at this time upon the subject. During the early part of the same year it came to my knowledge through the newspapers that Col. Mulligan had been shut up at Lexington, Missouri, with his command, and was finally obliged to surrender for want of water.

At a meeting at my sitting-room of the officers of my regiment, then in camp near by, this subject was brought by me again before nearly the same persons mentioned above as being the members of my drill squad, on which occasion, after calling their attention to the case of Col. Mulligan, I said: I wish to explain to you now fully my ideas as to a method for getting water for the regiment. I said, taking a pencil in my right hand as before: "Suppose this pencil, sharpened as you see, is an iron rod, and the surface of this table to represent the ground from which you wish to procure water; suppose the rod to be driven into the ground and into the water and withdrawn and a tube inserted in its place and a pump attached to the tube, wouldn't you have a well which would obviate the difficulties met by Col. Mulligan?" Reference was also had at the same time to the poisoning of the wells in Virginia. The suggestion did not receive the approval of anybody present; every one of
1796 the officers who expressed an opinion were opposed to the
feasibility and practicability of this matter. After considerable discussion on both sides, and after the expression of opinion by one or more of them that the proper way to do it was to make a bored or artesian well, I said, Very well; this is my plan; I will detail you, Mr. Mudge, to make an experiment and Lieutenant Colonel Carmichael and Adjutant Robinson to assist you; you will procure the rod and the tube, which may be of tin or zinc, fitted on an ordinary boat pump, and come to my house as soon as you are ready, with the material and we will make the experiment. There was other conversation, perhaps, as to detail, all tending in that direction. I remember, however, that both Mr. Mudge and Mr. Carmichael expressed themselves pointedly opposed to my suggestion; the only question that seemed to be undecided was as to the method of drawing the rod; I think I suggested, in answer to that, a pulley, and said to Mr. Mudge, You are a mechanic; you ought to know how to manage the details, or that in substance.

The next morning but one after this meeting, at about seven o'clock in the morning, I should judge, perhaps a little later, Lieutenant Colonel Carmichael drove into my gate with his business wagon, having with him Mr. Mudge and Adjutant Robinson, and in the wagon some material, as they said, for the proposed experiment. We immediately proposed to select a place for it. Some little delay and conversation occurred, and about the moment when operations were to commence a soldier came from camp with information that I was needed there immediately; I accordingly went, but in going out of the yard I said to Mr. Mudge or to Lieutenant Colonel Carmichael, one or the other, and both probably heard the remark, "You will find a beetle in the woodshed." I returned to the house and to the experiment, I think, in the neighborhood of ten o'clock in the forenoon and found those officers still engaged in it. My best recollection is that when I came to the ground they were putting down the pump tube; at any rate, it was but a short time after I came back before they had a successful well; the water flowed a full, free stream and a continuous one, in answer to the demand of the pump.

1797 Mr. Mudge told me, in answer to some question I had asked him, that the rod used was nine feet in length, and I have associated in my memory seven feet as being the length of the tube. I should say that the rod was about an inch and a half in diameter and might have been smaller; I remember of noticing particularly the tube as it stood in the well with a short spout soldered to it perpendicularly; perhaps it was an inch and a quarter in diameter; perhaps more; the ground on which the experiment was made was low, alluvial soil, from which a crop of potatoes had just been taken; at the end of the experiment Lieutenant Colonel Carmichael and Adjutant Robinson, and, I think, Mudge was not included, accompanied me to the gate on the way to the camp, and I said to them, "Well, boys, you see my plan is a success and it works; now, we will make an experiment at the camp; if it works there we shall have a good test," to all of which these gentlemen objected; afterwards I instructed Lieutenant Mudge to see Mr. Graham and make for him a well in this way in his cook-house at the camp.

Q. 4. In what month of the year 1861 was this well upon your premises put down?

A. I think this experiment was made in the month of October.

Q. 5. How long did this well remain in use upon your premises?

A. It was in the ground when I went to camp and I don't remember seeing it afterwards; I think it was pulled up the same day.

Q. 6. Please state what was the condition of the earth about that well tube at the time when you were pumping water from it and its position in relation to the tube.

A. The surface of the ground was loose soil; when I noticed it the surface of the ground was compacted about the pipes, as I supposed, by the tread of the feet of the men.

Q. 7. Were you at any time afterwards at the place where this well was made?

1798 A. I think it was the next day or the day after; after dinner I went to that place.

Q. 8. Did you observe anything in relation to what had been done; and, if so, what?

A. I did observe what had been done, and that the hole from which the pump had been withdrawn still remained intact, and that it was a round hole and about the size of a pump which I had observed the day previous; the hole seemed to be such as could have been formed in no other way than that the earth had been packed tightly around quite to the top of the surface of the ground; I noticed the water stood in the hole and came within a foot of its top.

Q. 9. Please describe the pump that was used and its valves and their position.

A. I cannot describe the valves except from the effects I saw from operating the pump; I saw the barrel of the pump, which was of tin, I think, about an inch and a quarter in diameter; it was a common boat pump; when the plunger was operated a full and continuous stream flowed from the spout, which could have only occurred with this class of pumps if a valve had been attached to the plunger rod of the usual form, fitting tightly in the pump, and with a foot valve at or near the lower end of the pump.

Q. 10. Can you say whether or not, when the plunger was forced down and before being raised, water stood in the barrel of the pump up to the level of the bottom of the discharge nozzle?

A. It did.

Q. 11. And when the plunger was forced down the water did not fall away; is that correct?

A. That is correct, as I understand it.

Q. 12. What was the distance from the surface of the ground up to this discharge nozzle?

A. That would be but an opinion, but from my present recollection I should say it was from two to three feet.

1799 Q. 12*a*. Did or did not the body of the pump extend above this nozzle?

A. It did.

Q. 13. How far, and was this upward extension of the same size and shape?

A. I cannot accurately give the length of this extension above the nozzle; it was at least a foot in length; it may have been more.

Q. 14. Can you give the length of the plunger rod? If so, please state what it was.

A. I did not see the plunger rod out of the barrel, to my recollection.

Q. 15. Did Lt. Col. Mudge make a well in the cook-house as you instructed him to do?

A. He did.

Q. 16. Please give us the date when that was done.

A. I cannot fix the exact date; it was immediately after the house experiment just described.

Q. 17. Were you present at the making of that well?

A. I was there but very little; the details were left wholly to Mr. Mudge; I was very busy.

Q. 18. Where were you during that time?

A. I was in camp and wherever the military duties called me; always was at hand.

Q. 19. Did you or not furnish any assistance in the making of that well; I mean other than personal assistance?

A. I did.

Q. 20. What assistance, please?

A. I directed Adjutant Robinson to make a detail of soldiers to assist Mr. Mudge whenever he needed it.

Q. 21. Did you or not ever see this well in use or use it yourself?

A. I did see it and pump from it myself.

Q. 22. What was the nature of the supply of water as to its extent?

1800 A. The supply was abundant and regular and compared favorably with other driven wells as to these particulars.

Q. 23. Please state what the water was used for and to what extent?

A. It was used for all the purposes of the cook-house and to supply the drinking water for the tables, as I understood it.

Q. 24. How did the supply of water from the experimental well previously made near your house compare with the supply from this fair ground well?

A. Favorably; both were good wells and gave a good supply and seemed to be fully equal to the demand of the pump in each case respectively.

Q. 25. Who was present, if any one, other than the three gentlemen you named and yourself, at the making of the well near your house?

A. I remember my son, Mason A. Green, was present, and I have always associated Capt. Sager's face with that experiment; I think he was there and probably some soldiers, but I can't name them; the two Dibbles were also there; their names are Horace and Eustace, father and son.

Adjourned for lunch at 1½ p. m. until 2 p. m.

[SEAL.] LEONARD A. GIEGERICH,
Notary Public, N. Y. Co. (31).

Parties met pursuant to adjournment.

Q. 26. When did you first apply for a patent for your invention?

A. My first application was made either in December, 1865, or in January, 1866.

1801 Q. 27. You say that your first application was then made; did you make more than one; and, if so, why? Please explain.

A. I did make more than one; the first application was forwarded by me to Mr. Ward, member of Congress, to be put on record and, as he informed me, was so filed, but the application was lost or abstracted from the Patent Office before duly put on record.

Q. 28. When did you make your second application?

A. The second was put on file in the Patent Office on the 17th day of March, 1866.

Q. 29. What caused the delay after you had made said invention before you had applied for a patent?

A. The invention was made in the summer of 1861; during the years intervening between that and the date of my application in the year 1866 my time was wholly occupied in the various and serious complications in which I had been involved by the shooting of McNett, and the various lawsuits in which I became involved on account of debts due the Government for the expenses of my regiment and which my enemies proposed to collect of me rather than of the Government; also complications growing out of difficulties with the church and the priests and bishops who wickedly and unfairly attempted to use their authority against me for my embarrassment; also the continued effort which I was making to secure my reinstatement to my rank in the army, from which I had been unjustly and illegally removed; also the necessity I found myself under to defend myself against the indictment then pending for the shooting of McNett; because of these necessities and occupations I was obliged not only to devote my whole time, but all my mind was so devoted to the defense of these various interests and in defending my personal honor and liberty that I had neither time, inclination, nor possible opportunity to have prosecuted my claim to the invention.

Q. 30. Previous to your taking command of the 76th regiment had you any—and, if so, what—military education or experience?

1802 A. I was educated at West Point, in the Military Academy.

Q. 31. Will you please give us a little history of the suits in which you were engaged in relation to the McNett affair and in defending yourself against the suits you say were brought against you for debts incurred on account of the Government for matters connected with the regiment?

A. In the first place, the McNett indictment was pending, which was called up at every term of oyer and terminer, which required my constant attention; secondly, the law questions which involved my defense in this indictment were new to the lawyers of our district, involving, as they did, the construction of military law in civil courts; the question of jurisdiction as between the military and civil courts, the question of justification, under the military law, of the shooting of McNett, and the exact amount of authority of a military commander to enforce an order, and the various related questions to these required the examination of a large number of authorities and consultation with various attorneys in different parts of the country. I examined personally authorities on these subjects at different times in the libraries at Washington, New York, Albany, and Syracuse and Cortland. These examinations and trials absorbed of themselves a large portion of my time during these years. There were two suits against the priest of my church in which I was plaintiff, in which evidence was taken to a considerable extent. I cannot now recall the exact number of suits in which I was defendant for the debts of the Government, but if I had had no other business during those years than looking after these suits I should have been a very busy and a greatly badgered man.

Q. 32. What other business than attending to these suits were you engaged in during these years?

A. Between the intervals of these legal combats I was making continuous pilgrimages and efforts in all directions with a view to secure my reinstatement to my military command. In looking back over the efforts I then made in this one direction it would seem to have been ample employment for those years.

1803 Q. 33. What, if any, labor did you do, or *if* what, if any, business did you transact after the time you returned to Cortland from the army down to the time of your trial for the shooting of McNett that brought you in any income? Please state as fully as you can.

A. I did no business that brought me any income. I had no mind nor time for business. If I had had I could not have done it. I had no income, except, perhaps, the small one from my farm and garden. I did no labor, except, perhaps, chores about the farm and garden when at home. The farm was less than seven acres of tillable land; the garden was about from a quarter to a third of an acre.

Q. 34. Please state who composed your family, giving their proximate ages.

A. I had a wife and four children; the oldest boy was about twelve years of age; the second about ten years of age; the other two, the youngest, were twins, about six or seven years of age.

Q. 35. How and in what manner did you procure the means necessary for the support of your family during those years?

A. It was mostly procured by loans from friends and mortgages made upon the homestead and upon a little farm of 50 acres I had in Livingston county, Western New York.

Q. 36. What was the state of your finances at the close of the McNett trial, in the spring of 1866, as to money or property in hand and debts, if any, owing?

A. Very bad. My financial condition at that time was one of embarrassment every way. My property was mortgaged about its value. I owed other debts. I was worth considerably less than nothing.

Q. 37. Please state where your family resided from 1861 to the spring of 1866, giving the town and the locality of the town, wherever they may have been during any portion of the time.

A. From the fall of 1861 to April, 1863, the family lived at the center of the village, on Main street, the homestead having been rented during this time. This was at Cortland village, New York. The homestead was situated about half a mile north of the 1804 village, on a continuation of Main street. The family returned to this homestead about April, 1863, and there remained up to the winter of 1867.

Q. 38. What were your social habits after the time of your return from the army, in the spring of 1862, down to the time of your trial for shooting McNett? Please state the nature and extent of your intercourse with the inhabitants of Cortland, and especially with those with whom you had been previously intimate.

A. My social habits during all those years, I think, may be described as being that of entire isolation. The excitements of the war, the prominent part I had taken in raising the 76th regiment, and upon other questions of that excited period, had divided the community in two classes as to me. While the loyal men generally believed I was right and still adhered to me socially and in every desirable way, yet the other party were so intensely and malignantly bitter and so personally unjust and hostile that the effect upon me was to avoid all public intercourse, and, to a large extent, even of private intimacy with my neighbors. I especially avoided public places and crowds of men and remained largely at home.

Q. 39. Was or was not this state of your social habits a change from what they had previously been; and, if so, to what extent?

A. It was, to the greatest possible extent. It amounted to an entire change of my habits of life and association, as well as a change of my whole line of thought; whereas previously I had been an active member in society in every respect, social, religious, and political, and particularly active in all questions relating to public interests, my habits of life now became one of almost absolute seclusion. An assembly of any kind, and particularly the face of a copperhead, as we called them in those days, or a disloyal remark, or an unfriendly face, annoyed me beyond measure and confirmed me in my settled inclination to seclusion.

1805 Q. 40. Who prepared the papers when you made your first application for a patent on the driven well, as you say, in December, 1865, or January, 1866?

A. I drew them myself, in pencil, and my boy copied them.

Q. 41. Were you accustomed to the preparation of such papers?

A. I was not; that was the first effort.

Q. 42. Please state the reason why, not being yourself accustomed to preparing such papers, you did not employ your lawyer or other competent person to prepare them for you.

A. I did consult my lawyer upon the subject, and he said I should do well if I succeeded in saving my head without going into a patent contest, which should make me more enemies; that the McNett indictment would be all we could take care of; for these reasons I undertook to take care of my own claim, as far as the application was concerned, hoping to get the indictment off before serious trouble should arise over the patent.

Q. 43. When you forwarded your papers to Hamilton Ward, a member of Congress, as you have testified, did you also forward money to pay the Patent Office fees?

A. I did not; I wrote him asking him to apply to my brother for the money, who lived in the same village with Mr. Ward, in Allegany county, New York.

Q. 44. Why did you not yourself send the money?

A. I did not have it.

Q. 45. What was the occasion of your making this application when you did, after having rested so long after making you invention?

A. I made the application immediately or very soon after it came to my knowledge that Suggett and Mudge were utilizing my invention. This came to my knowledge some time in the last part of 1865, through Dr. Todd, who called at my home, it seems, for that 1806 purpose. This was the first intimation I had of the use of the driven well other than the experiments I had made in 1861.

Q. 46. Have you any written or printed documents which enable you to fix the time or about the time when Dr. Todd conveyed to you the first knowledge you had that Suggett and Mudge were utilizing your invention?

A. I have not in my hand at this moment, but Dr. Todd showed me a printed pamphlet, issued by Mr. Mudge, I think, and called my attention to some advertisements in the village paper, which seemed indirectly to indicate the facts I have stated. The pamphlet issued by Mudge seemed to concede the invention as having been first suggested by me, if I recollect correctly the contents of it.

Q. 47. Have you now in your hand the pamphlet referred to in your answer to question 46? And if you say you have, please state what in that pamphlet called your attention to the fact, as you say, that Mudge and Suggett were utilizing your invention, and what in that pamphlet or connected with it enables you to fix about the time when Dr. Todd called your attention to the fact that Suggett and Mudge were utilizing your invention.

A. Dr. Todd told me the village papers had avertisements in them that week from both Suggett and Mudge disclosing the fact, which was a surprise to me, that both had secured patents for my invention. I immediately examined the village papers and found both the advertisements, as stated, and cut them out and pasted them in this pamphlet, and I now find them there. The one signed by James Suggett is dated December 5, 1865; the one signed by Byron Mudge is dated December 11, 1865. These facts enable me to fix about the date at which Dr. Todd called my attention to the fact that Mudge and Suggett were utilizing my invention, which must then have been soon after the 5th of December, 1865.

1807 In the body of the pamphlet itself signed by Byron Mudge, on pages 1 and 2, facts are set forth which identify fully to my mind the experiments made by Mudge, in 1861, as being the same experiment made by me at that time by and through a military detail of officers of my regiment, of which detail Mr. Mudge was a member, and that on page 2 of said pamphlet the admission is made by Mudge that his colonel made a suggestion which led to the experiment referred to. I was, in fact, the colonel referred to.

Q. 48. In the examination of Henry Woodruff as a witness for defense, in the case of George Leland, which testimony was taken April 7th, 1880, in answer to direct question 38, he said, which was: "Did said Green know of this driven well made by you, as you have testified," which well, he had answered, in answer to direct question 12, was first driven in the fall of 1861; and, in answer to direct question 16, he says: "Mudge left it unfinished; returned to it in 1862; as near as my memory serves me, it was put down late in the spring of 1862; he then put down a new pipe, which remains in the well to this day." He answered, in reply to question 38, as given and explained: "I suppose that he did, from the question that he asked me;" and, in reply to question 40, his reply was: "He said he was glad to hear it, and was glad it proved a success, for if they (the regiment) should get caught as General Mulligan did they could get water;" and, in answer to question 43, he says: "I think this conversation was in 1862." Now, will you please state what, if any, conversation you had with Mr. Woodruff concerning driven wells and when such conversation occurred?

A. I have no recollection of ever having had any conversation with Mr. Woodruff upon the subject of driven wells previously
1808 to the interference case, in 1866, and I do not believe that I
had the conversation recounted by him as having occurred with me; I believe never — could have occurred and never did occur, and Mr. Woodruff is evidently mistaken in dates. If any conversation occurred between us upon this subject it must have occurred in the late fall of 1861, and related to the experiment of Mudge at my house, which Mr. Woodruff has forgotten as to date; and, as to the identity of the experiment referred to in the conversation narrated by him with me, I understand him to say we met opposite to his door on Main street, in 1862, while I was passing from my homestead to the village. During all the time from 1861 to the April of 1863 I was living in the center of the village and not at the homestead; therefore he could not have met me at his door going from home to the village, since my home was in the village at the time, all of which shows, if the conversation occurred at all between us, it was when I did live at the homestead, as he swears I was coming from there; but in the late fall of 1861 I did live there, and if the conversation occurred it then related to the experiment at my house.

Q. 49. When did your relation with the 76th regiment cease?

A. I think I was mustered out June 3d, 1862.

Q. 50. Mr. Woodruff, in answer to question 40, said he was glad to hear it (referring to Green), for if they (the regiment) should get caught as General Mulligan did they could get water. Now, I ask if, after the date when Mr. Woodruff says that well was made, you ever had any conversation with him on the subject of driven wells, or upon any other subject, until after your connection with the regiment had ceased?

A. I had not.

Q. 51. Did you, previous to 1856, have any knowledge of any driven well having been made by Mudge on the premises of Henry Woodruff in accordance with your invention as since patented by you?

A. I did not.

1809 Q. 52. Then do I or do I not correctly understand you that
any conversation you may at any time have had with Henry Woodruff in relation to driven wells as made by Byron Mudge was had previous to your leaving Cortland with the regiment, in December, 1861?

A. You do understand me correctly.

Q. 53. And do I or do I not understand you correctly as saying that the fact of Mr. Woodruff's statement, that in the conversation you had with him his statement that if you (the regiment) should get caught as General Mulligan was they would get water by the use of the driven well, is proof in your mind that if such a conversation occurred it must have been before the middle of December, 1861, as you have stated you did not after that date have any conversation with Mr. Woodruff on any subject whatever until after the severance of your connection with the regiment?

A. You have so correctly understood me.

Q. 54. After your return to Cortland, about June 3, 1862, did you ever have any further connection with the 76th regiment or any connection with any other regiment that would form a foundation for such a remark as Mr. Woodruff attributes to you as having been made to him?

A. I did not.

Q. 55. Why could you not have had any conversation with Mr. Woodruff in 1862, previous to June 3d, 1862?

A. Because during the whole of that year and up to about that date I was in Washington.

Q. 56. Do you know Dr. Henry A. Bolles, a practising physician of Cortland county, New York?

A. I do, slightly.

1810 Q. 57. Did you or not ever have any conversation with Dr. Bolles in relation to his putting in a driven well on his premises at Cortland during the year 1863 or the year previous or the year after 1863.

A. I have no recollection of ever having any conversation with Dr. Bolles at any time. I remember to have passed the time of the day with him several times, but had no conversation. I do believe that I never had any conversation with him as to driven wells. I am very confident that I never did.

Q. 58. Dr. Bolles was called as a witness in this case, and, in answer to direct question 8, said as follows—I quote: "According to the best of my recollection, I started out (I cannot remember distinctly) and did not find him, Mudge, at home. I found him after a little while, but think I saw Green somewhere before I found him. I don't remember much about the conversation with Green, but found Mudge soon." Now, I ask, Did you have any conversation with Dr. Bolles in relation to or have any knowledge of his having a driven well at any time previous to December, 1865?

A. I did not; nor did I even then, as I remember.

Q. 59. Will you now please state whether or not any brace or other fastening was attached to the pump used at the house well, or whether or not any fastening was required other than that afforded by the pressure and friction of the tube against the earth by which it was surrounded, and which you have stated was pressed tightly against the tube?

A. There was no brace of any kind, and there was no need of any. There is nothing clearer in my recollection as to that experiment than the fact that I saw, and I recollect that I did see, Mr. Mudge stand over the pump and drawing the plunger and lowering the plunger, and by that operation causing the water to flow; and in doing that I know there was no extra means or need of any being used to fasten the pump in the ground. The operation of pumping did not pull it from the ground; of this I am positive.

Q. 60. After this experiment at the house and the making
1811 and use of the well at the fair ground, what was your opin-

ion as to the practicability of making wells by that process, either for general use or for the purposes of the army, as you had originally intended?

A. The result of the two experiments referred to had upon my mind the effect to convince me of the entire practicability and feasibility of the process for all the purposes named in the question.

Q. 61. Did you take any steps, give any orders or directions, for the procurement of material to be taken with your regiment into the field for the purpose of making wells to supply that regiment with water wherever it might be situated?

A. I gave Lieutenant Mudge orders to procure such material for the purposes named, and gave Adjutant Robinson orders to furnish him with transportation for the same, and when at Albany made arrangements with the quartermaster general for the transportation of that material with the regiment when it went to the front.

Adjourned to Saturday morning, August 7, 1880, at 9 o'clock, at same place.

[SEAL.] LEONARD A. GIEGERICH,
Notary Public (31), *N. Y. Co.*

Met, pursuant to adjournment, 10 a. m., Saturday, August 7, 1880.
Present: As before.

Q. 62. What was the nature of the materials which you ordered to be procured, as stated in your last answer?

A. They were to include necessary pipe and pump and driving rod and all necessary materials for making wells in the field.

Q. 63. Please describe the method in which the wells were to be made with the materials as ordered by you to be prepared to take with the regiment.

A. They were to be made by the general plan already disclosed to Mr. Mudge—by the use of a rod and single pipe, with pump attached, with an air-tight connection.

1812 Q. 64. Did you or did you not, in addition to the material, such as you have described, order the procurement for the use of the regiment of an outside zinc or iron casing tube to be used as a curb to prevent the earth falling in and of a smaller tube to be inserted inside the outer tube, to which last was to be attached the pump and the tube to be inserted inside the outer tube, leaving a space between the two down to and into the water?

A. I did not.

Q. 65. Was the tubing which you ordered procured and taken with the regiment?

A. I think it was procured and so understood from Mr. Mudge, but was not taken with us, as afterwards explained to me by him, on account of the complication and difficulties in our regiment following the shooting of McNett.

Q. 66. Did you or not ever see the material which was procured for making wells and to be taken with the regiment?

A. I never did.

Q. 67. Were you acquainted with Henry Bates, of Cortland, New York; and, if so, when did you become acquainted with him?

A. I was acquainted with Henry Bates, of Cortland, New York. I first knew him in 1860.

Q. 68. Had you knowledge of the building of a house by Henry Bates in the village of Cortland in the year 1863?

A. I had; I think it was about that date.

Q. 69. Were you on the premises where that house was built at any time from its commencement to its finish? And, if so, please state at what time and under what circumstances.

A. I was in the house, but I do not remember the date with any certainty. The house was situated about sixty rods from my dwelling, on the same side of the street. One morning I called at the first house beyond his and very near to it. Both houses were situ-
1813 ated near the L of the road. In coming away from the house beyond his I remember to have met Mr. Bates opposite to his own house. I think he was doing something in his yard. He asked me in to see the house. After some little conversation between us we went in, and he showed me through the house, and described its arrangement with considerable detail. He seemed to be particularly proud of his house, its arrangement and construction.

Q. 70. Were you present with Mr. Bates on his premises at any other time than the one of which you have spoken?

A. I have no recollection of being in the house or on the premises at any other time. I think I was not.

Q. 71. What conversation had you at that time with Mr. Bates in regard to his means of procuring water for his domestic use?

A. I remember he took me into a small room, which was, perhaps, adjoining the kitchen or was the kitchen, in which one side of the room was occupied by a sink, at each end of which was a pump. Mr. Bates explained to me that one pump was supplied with rain water from a cistern, and that the other was connected with a well.

Q. 72. Did he or not describe to you the well with which you say one of the pumps was connected?

A. He did not. No reference was made to the character or to the peculiarity of the well or cistern.

Q 73. Did you or not ever see that well while in course of construction, or did you know how the well was constructed, or what was its style and nature from any source?

A. I never saw the well. I never knew anything about it or its character or method of construction.

Q. 74. Did you or not know that the well to which the pump was attached, shown you by Mr. Bates, was made by Byron Mudge, or were you ever told that it was?

A. I did not know that it was made by Byron Mudge, and I have no recollection of ever having been told that it was made by him.

Q. 75. Can you say positively whether or not you were so told by Mr. Bates during the conversation with him, as you have already stated?

1814 A. I think I can say positively that no conversation was had as to the character of the well at that time. I came away only with the general impression of the general arrangement of the house, which was the subject of the conversation between us.

Q. 76. Please state, if you can, any remarks that you made to Mr. Bates during that conversation, either concerning his house and its arrangements or his pumps and their arrangements.

A. I remember to have said to Mr. Bates, when in the room where the two pumps were, that the arrangement of that room as to its water supply was a good one, referring to the fact that both well and rain water were delivered into the same sink. I remember also to have commended the general arrangement of the house.

Q. 77. Did you, from the time the well was made upon the fair ground (being the camping-ground of your regiment), about the first of November, 1861, down to the time of your first application for a patent, about January 1st, 1866, make or procure to be made any driven well in accordance with your invention as perfected by you in 1861?

A. I did not.

Q. 78. Did you or not authorize any one to make, assent or consent to the making of any well anywhere in the method embraced by your invention during that time?

A. I did not.

Q. 79. Had you or not any knowledge or information, after the making of the fair-ground well down to the latter part of the year 1865, that either James Suggett, Byron Mudge, or any person or party were making wells which embodied the process which you invented, either in Cortland, its vicinity, or elsewhere?

A. I had not.

Q. 80. Had you or not any knowledge of wells being put down
by Mr. Suggett for D. C. McGraw, Garrison & Collins, L. Dexter,
Hannum & Shirley, J. A. Schermerhorn, G. N. Copeland, F. E. Knight,
C. Brown, Thomas Allport, Mills & Stevens, Patrick Kennedy,
1815 Mr. Van Hagen, Mr. Watrous, Mr. Krebes, Mrs. O'Brien, or
at the Eagle tavern during or previous to the year 1864?

A. I had no knowledge of those wells.

Q. 81. Had you or not any knowledge of wells being put down by Mr. Suggett for Avery Seaman, James Foster, or Allen B. Smith during the year 1862, or of wells put down by Mr. Suggett for Mr. Bell, Ira Hicks, for I. Seaman, Mr. Hackett, Mr. Johnson, and Sally Bonny during the years 1863 and 1864, or of one put down for Albertus Fairchild, for Mr. Mudge, in 1863 or 1864?

A. I had no such knowledge.

Q. 82. Had you or not any knowledge of any well or wells put down by Byron Mudge for Ira Hicks or I. Seaman during the years from 1861 to December, 1865?

A. I had no such knowledge.

Q. 83. Had you, during the latter part of 1861, or between the times when the well was put down at your house and the well was put down at the fair ground, any knowledge of any experiments to make or the making of any driven wells by Byron Mudge?

A. I had no knowledge of anything that Mr. Mudge did outside of my orders upon that subject, which related only to the experiment at my house and the one at the camp.

Q. 84. If, as has been testified to by various witnesses for the defense, driven wells were made in Cortland and its immediate vicinity during the years 1862, 1863, 1864, and a part of the year 1865, how do you account for the fact of your having no knowledge of such wells or the manner of making them? Please explain.

A. The circumstances already stated fully explain the reason why it was not natural and why I did not happen to discover and why it did not come to my knowledge that these wells were being so made. While it may be difficult and is absolutely impossible to convey in words at this late day the circumstances by which I was then surrounded and the absorbed and overtaxed state of my mind, it is nevertheless true that these circumstances and surroundings were such that I did not know of the making or existence of these
1816 wells. The general fact of the isolation of my life at that
time should afford a sufficient explanation of this want of knowledge. It was also a well-known fact that Mr. Mudge, on account of his dissatisfaction at losing his place in the regiment, studiously avoided me, and I think this was true of his friends.

Q. 85. Will you please state what is the nature of your invention and the discovery upon which it is founded?

A. My invention consists, first, of a process—a process for obtaining water from the earth by which I utilized the discovery that if the direct atmospheric pressure which intervenes in the case of a dug well is cut off that the indirect pressure of the atmosphere will intervene in favor of the water supply to the driven well; that whereas in the case of the dug well the water supply to it is due to the weight of the water, less the friction through the sand, that in the case of the driven well the water supply is due to the weight of the water, less the said friction, supplemented by the weight of the atmosphere, equal to about 15 pounds to the square inch. One novel result of this principle first realized by the driven well is the achievement of a continuous flow of water in response to the action of the pump.

Q. 86. What, if any, is the difference as regards a continuous supply of water from the ordinary dug well for domestic farm purposes, usually from 30 to 36 inches in diameter, and a driven well, consisting of a tube of one and a quarter inches internal diameter, water being drawn from the dug well through the same-sized pipe as forms the body of the driven well, and the same size of pump being used in both cases and operated in the same manner and at the same speed?

A. The difference will be that a dug well will exhaust in a very short time, while the driven well will give a continuous and uniform stream of water.

Q. 87. Please state, in case of two such wells being operated
1817 continuously—say for twelve hours—what will be the difference in the amount of water they will supply during that
time.

A. The difference would be largely in favor of a driven well; the average dug well would exhaust in 30 or 60 minutes, perhaps, while a driven well would give a continuous and uniform flow; how many times during these twelve hours the dug well would refill would depend upon the character of the sand, but the real supply in the two cases is vastly different, the driven well having the whole water-bearing stratum from which to draw and weight of the atmosphere to force to the pump, while the dug well has a reservoir of 36 inches diameter from which it draws its supplies, the source of supply to which will be only the weight of the water, less its friction through the sand.

Q. 88. Have you or not any practical experience in making driven wells?

A. I have.

Q. 89. Does or does not your practical experience confirm and establish what you claim to be the difference between the ordinary open well and the driven well as made by you under your patent?

A. It does fully.

Q. 90. I hand you a paper which sets forth in print the advantages of the driven-well system. I ask you whether that embodies your views in regard to the advantages of the driven well, so far as they are there set forth?

1818 A. I think it does as far as it goes; some later experiments have developed certain other advantages of the driven well and the causes of them, and important disadvantages of the dug well and the causes of them, which are not embodied in this paper; the importance and advantages of the driven well are too important and numerous to have been discovered at once, and it is not certain that they have all been discovered and pointed out by anybody as yet.

Q. 91. Will you please state some of the advantages of the driven well?

A. First. It practically annihilates time in the construction.

Second. It puts the consumer in direct communication with a pure fountain of water within the earth and enables him to select such a quality as is most desirable.

Third. It can penetrate the earth beneath salt water, bays, or rivers till it reaches and supplies fresh water as successfully as if there were no salt water on the surface.

Fourth. Pure, cool, fresh water can be procured where the surface is a stagnant pool or a salt-water marsh.

Fifth. All surface drainage is excluded and it protects the water from all foreign substances and impurities. It may be put down in the immediate vicinity of stables, cattle yards, cesspools, etc., and be beyond the possibility of contamination from them.

Sixth. It can be put down in house, store, shop, mill, or barn, in cellar or vault, wherever wanted, without injuring or disturbing the building.

Seventh. It renders the cleaning of wells unnecessary.

1819 Eighth. It is practically inexhaustible and cannot, like a dug well, be pumped dry, but will supply the same amount of water continuously, as has been thoroughly demonstrated.

Ninth. With an anti-freezing pump and hose attached, every farmer and householder has ready at hand, at all seasons, a reliable fire-engine with an inexhaustible supply of water, with which two men can force water over any house, barn, or other building. It can also be used for watering trees, shrubs, plants, and gardens.

Tenth. For supplying towns and villages for fire purposes, being inexhaustible, it supplies an urgent want heretofore unattainable, except at a large expense. Large numbers are in use for this purpose; it will afford a supply of water to the armies on the march; to emigrants and exploring parties passing through regions where water is otherwise unattainable. The driven well is invaluable as a promoter of health by furnishing water at all times sweet, cool, and pure; beyond the reach of surface drainage or contamination by accident or from insects, reptiles, or vermin, to which dug wells are always liable, and to which cause a large proportion of fevers and other diseases owe their origin, especially in low ground and in crowded towns and villages where open or dug wells are depended upon.

Q. 92. What was your object in having the well put down at the fair ground?

A. As a further experiment to test more fully the feasibility and practicability of my invention.

Q. 93. What was the result as testing the practicability and feasibility?

A. I regard it as confirming the success of the first experiment.

1820 Q. 94. Did you ever abandon or intend to abandon your said invention to the public?

A. I did not.

Q. 95. Was it or not at all times from the time you made your first experimental well until the time you applied for your patent your intention to secure to yourself the benefit of your invention by patenting the same?

A. It was.

Q. 96. What, if any, knowledge have you of the number of driven wells now in use throughout the United States?

A. I have no data at hand from which to estimate the number, but I think the driven well is to-day very widely distributed throughout the whole United States, and is in general use by the people. If asked for the number I believe to be in use I should be obliged to say that I thought there were more than 1,000,000 certainly in use, and probably many more. I believe the driven well to have passed into general use among the people so far as to have become a necessity, and to have largely entered in the economic interests of the country.

Q. 97. Please state what knowledge and information you have in regard to the proportional numbers of driven and dug wells that are being put down in the country at the present time.

A. My observation would lead me to believe that but very few dug wells are being made to-day, and that the demand and use for driven wells is daily increasing. As far as I know and believe, more than a hundred driven wells are made to one dug well. The proportion may be still greater than this in favor of the driven well.

Q. 98. Will you please state with what thoroughness suits have been tried which have been brought to sustain the patent on your invention?

A. It seems to me that the thoroughness and success of the defense before the courts for sustaining my patent have been without precedent as regards both the amount of work done and the success achieved. Up to this date no decision, to my knowledge, has 1821 been rendered adversely to the patent, while in several well-contested cases, in which the most bitter and strenuous defenses were made by the most distinguished counsel and backed by some of the strongest money interests of the country have been enlisted against it, several distinguished judges of the United States courts, all of them having been distinguished for learning and character and having a national reputation as jurists, have fully sustained the validity of my patent. I think I could hardly be called upon to say more in proof of the thoroughness of the efforts made in this direction; and why, at this late day, any sane man should still force us into courts and impose upon us unusual and unjustifiable expenses in reiterating a defense to a patent which has been not only so often sustained by the courts, but which is so plainly legal and valid upon its face.

Q. 99. At the time when Byron Mudge, James C. Carmichael, and Heman F. Robinson were engaged in making the well on your premises, near your house, were they connected with your regiment and acting under your orders as colonel in all matters pertaining to the regiment?

A. They were.

Q. 100. And was the detail, which you have stated you made of those persons to make that well, made in your capacity as colonel and commandant of the 76th regiment?

A. It was, so far as that regiment had an organization at that time.

Direct examination rests.

1822 Defendant's counsel, waiving none of his rights, under protest heretofore filed with the notary, and not waiving want of of proper notice, cross-examines witness as follows:

X Q. 1. Are you one of the complainants in this suit?

A. I am.

X Q. 2. Are you a complainant in a number of other suits involving the same questions as to the validity of your patent which are involved in this suit?

A. Yes; I so understand it.

X Q. 3. In how many suits involving the validity of your patent are you complainant?

A. I think I am one of the complainants in nearly all of the suits that have been brought concerning my patent, if not all, out of Jersey.

X Q. 4. Please give me the number.

A. I am unable to give the exact number.

X Q. 5. Please approximate.

A. Since the reissue we have had the Carman case, which involved of itself a litigation of from three to four years; this was followed by the Minnesota suits, and how many there were of those I have no idea. I have heard there were a good many that were to abide that decision; then followed the Indiana suits; how many there were of these I cannot say. I commenced seven or more suits in Massachusetts, which were finally settled, before taking evidence, by the payment of full royalties and costs; there are some Connecticut suits still pending, as I understand, quite a number; no doubt there are other suits which do not now occur to me.

X Q. 6. My question is a simple one. In how many suits within the United States are you complainant, which suits involve the validity of your patent? I do not ask in what district they are pending, nor in what State they are, but ask for the number, as nearly as you can give it.

A. Without consulting my agents and attorneys it would be utterly impossible for me at this moment to answer this question intelligently as to the number of suits referred to.

X Q. 7. Do they not exceed one hundred in number.

1823 A. I do not know.

X Q. 8. Do you believe they exceed 100 from such information as you have from time to time received from your agents and attorneys?

A. I have no information upon the subject which would lead me to believe the number of suits now pending is so large as the number named, though it possibly may be true.

X Q. 9. In each of the suits now pending in which you are a complainant have you a pecuniary interest?

A. Naturally I ought to have, since I own half the patent; I have a pecuniary interest in each suit now pending, as far as I know; of course there may be suits now pending, and I think there are, brought in territory formerly assigned by me, other than those brought by Wm. D. Andrews & Bro., in which, on account of the form of the assignment, it would be necessary to use my name as a plaintiff, while I should have no pecuniary interest in the result; I think the Indiana suits may have been of this class; I do not know at this moment of any other.

X Q. 10. Have you not heretofore brought or caused to be brought a number of suits for alleged violation of your patent, which have been disposed of, in addition to the suits you have already mentioned as having received final disposition?

A. Perhaps so, but I do not now recall them, and the question is not sufficiently explicit to call my attention to the particular cases to which it refers.

X Q. 11. Do you mean to be understood as saying that if such suits have been brought you do not now recollect them?

A. I mean to say that the question does not refresh my memory, and does not recall to my recollection any such cases to which reference may be had.

X Q. 12. Have you at any time, in any circuit court of the United States, brought any suit, either as sole complainant or as a complainant with others, for alleged infringement of your patent, which 1824 suit has received final disposition, except the suits heretofore named by you as having been disposed of?

A. The same answer heretofore; it now occurs to me that some suits brought in my own name in the county of Cayuga, New York, were settled on default; if this is the class of cases to which the question refers there may be others which may not now be remembered this moment; if the question refers to contested cases, as I assume it did by its form, brought either by myself or by my agents, I am unable to answer further from information in my possession or from memory.

X Q. 13. Have you ever brought, in any circuit court of the United States, or caused or allowed to be brought in your name as complainant or as one of the complainants, any suit or suits involving the validity of your patent or for alleged infringements thereof, which suits were dismissed on default, except the suits spoken of in Cayuga county?

A. I have not, to my knowledge; I believe the suits in Cayuga county were not dismissed by default, as I understand it, but were settled on the default of the defendants; I know of no suits commenced since the reissue which have been dismissed by default of the plaintiff.

X Q. 14. Calling your attention to the fact that my question is not limited as to time, I repeat it.

A. My answers have all been limited and are limited to actions brought under the reissue of the patent.

X Q. 15. (Question repeated.)

A. I think there were some in Chicago under the old patent before the reissue that were dismissed for non-payment of costs, perhaps through the mismanagement of my agent and attorney, the suits themselves not having been brought and prosecuted according to my instructions and according to the contract with my agent and attorney.

X Q. 16. How many such suits were brought in Chicago and dismissed?

A. If I ever knew I do not now remember; I remember that the first batch of suits brought there were defaulted and the royalties and costs paid.

1825 Witness, continuing to answer to said cross-question, says: To the second batch some answers were put in, and then the attorney and agent discovered that their contract involved them in some litigations, which were not as convenient to meet as it was to pocket the costs in defaulted cases. I had ordered them previously not to bring any suits to trial there until we had tried one in the Eastern courts, nor to put themselves in a position where they would be obliged to do so. The whole complication growing out of those suits, as far as I was concerned, grew out of a misunderstanding or the misconduct of my agents and attorneys.

X Q. 17. Does not the fact remain that in those suits thus brought by you as a complainant and in which decrees of dismissal were entered and costs taxed against you you have never paid those costs to the defendants?

A. I do not know if the costs were paid or not; I have heard they were not paid; I have never paid them; there is money still in the hands of the agent, which should have gone for that purpose.

X Q. 18. In addition to the suits now pending in which you are a complainant are there not other suits pending involving the validity of your patent and in which you are not a complainant, but in which, as involving the validity of your patent, you have an indirect interest in maintaining your patent?

A. I am not aware of any, except the cases in New Jersey, but those cases are so far under my control that my patent interests are not likely to be imperiled by them.

X Q. 19. In what way are those cases under your control?

A. The owner of the rights under my patent for New Jersey is my brother.

X Q. 20. Are you not, in fact, the real complainant in those cases and the one who would be benefited in case your patent was sustained in those cases?

1826 A. I should be benefited by the case described by the question, but my brother is the *bona fide* owner of my patents in New Jersey, under an assignment duly made by me to him, and his case made without reservation.

X Q. 21. Where were you born?

A. I was born in the town of Pike, in what is now Wyoming county, N. Y.

X Q. 22. How long did you reside in Pike?

A. I think I resided there until I was fourteen or fifteen years of age, some three years of which I lived away from town in the adjoining town of Hume.

X Q. 23. Where did you go to when you left Pike?

A. The family removed to Portageville, an adjoining town.

X Q. 24. How long did you reside at Portageville?

A. I think about three years.

X Q. 25. Where next did you remove to?

A. At the age of about eighteen, I think, I went to West Point, at the Military Academy.

X Q. 26. What year was that?

A. I think that was in 1839.

X Q. 27. How long did you remain at West Point?

A. A little over three years, I think.

X Q. 28. Did your parents reside meanwhile at Portageville?

A. They did.

X Q. 29. After leaving West Point where did you remove to?

A. I returned to Portageville.

X Q. 30. And remained there how long?

A. For three or four or five years; the exact number of years I cannot now recall; I was part of the time at Portageville, Warsaw, Pike, Mixville, and Angelica—these towns were in the same vicinity—about a year of which time I was in Pennsylvania; this period covers, perhaps, six years or more; I cannot now recall exactly the time.

X Q. 31. Do you mean six years after leaving West Point or including the three years there?

A. I mean six years after leaving West Point.

X Q. 32. After this where did you remove to? Please give me times and places up to October, 1861.

1827 A. I went to Dansville, Livingston county, New York, where, I think, I remained about twelve years, but I am not quite sure as to the number of years; I then removed to Cortland village, New York, in 1859, I think. I remained there until after the war.

X Q. 33. Can you give me year in which you removed to Dansville?

A. I cannot with certainty, but I think it was in 1846 or 1847.

X Q. 34. When you removed to Dansville were your parents still living?

A. They were.

X Q. 35. At what place?

A. I think they were still living at Portageville.

X Q. 36. How long did they remain at Portageville?

A. They both died there; but I think my father, in fact, died while on a visit at Rushford; my father died about the year 1850, or it might have been as late as 1853; my mother died in the fall of 1876.

X Q. 37. After removing to Dansville did you return *return* at any time to Portageville on a visit?

A. Occasionally on visits.

X Q. 38. How frequently?

A. I cannot remember; perhaps once a year or once in a year and a half; perhaps oftener.

X Q. 39. Remaining ordinarily how long?

A. Perhaps over a night or a day or two.

X Q. 40. What was the occasion of your being a part of your time at Warsaw?

A. I had a sister living there, and when I came back from West Point, and being sick and unable to apply myself to any business, I went where it was pleasantest, and when somewhat better I entered the law office of Judge Doolittle for about two years.

X Q. 41. During what years did you read law with him?

A. I commenced within a year after my return from West Point.

X Q. 42. Give the name of your sister at Warsaw.

A. Mrs. Windsor.

X Q. 43. How long did she continue to reside or live at Warsaw?

1828 A. I think she lived there continuously up to about five years ago.

X Q. 44. While residing at Dansville did you ever visit her at Warsaw?

A. During the time I lived at Dansville I was never at Warsaw but once, and then not at the village of Warsaw. My sister had removed temporarily to a farm she owned some two or three miles south of the village. In visiting her at this time with my wife her team met us at the depot, about a mile and a half from the village, on the hill, and took us directly to her farm, where we remained over night and returned next morning by the same route to Dansville.

X Q. 45. When was this?

A. I am unable to fix the date, but I think it must have been about 1850.

X Q. 46. How far is Portageville from Hunt's Hollow?

A. I think it's in the vicinity of three or four miles, but then it may be five.

X Q. 47. How far is Portageville from Portageville Station on the Erie railway?

A. I think it is about one mile.

X Q. 48. Nearer to Hunt's Hollow than is Portageville?

A. It is further from Hunt's Hollow to the station than from Hunt's Hollow to Portageville.

X Q. 49. Are Hunt's Hollow and Portageville in the same municipality, called there towns and in other localities townships?

A. They are not.

X Q. 50. While in Dansville what business were you engaged in?

A. When I first went there I went to the law office of Endress & Vanderlip as student. I soon after went into the insurance business and followed surveying.

X Q. 51. While there did you know a man by the name of Jesse Lord?

A. I did.

1829 X Q. 52. While living in Dansville did you ever obtain any water from the premises of Jesse Lord?

A. I did not.

X Q. 53. Did you ever see a well upon his premises, either at the store or at his house?

A. I do not remember to have seen a well of any sort—a dug well or any other kind—at either his house or at his store. I do not remember having been at his house at any time.

X Q. 54. Do you know whether or not there was any conversation and general talk in the village of Dansville, in either the year 1849 or the year 1852, or about these years, in regard to Jesse Lord making wells at either his house or store by driving an iron tube or bar into the ground? Did you hear any such conversation or hear of it while living in Dansville?

A. I did not.

X Q. 55. When did you leave Cortland for Washington?

A. I have left Cortland for Washington a great many times. I left with my regiment December 18, 1861, and, after some delay in Albany, went directly in January following.

X Q. 56. How long did you remain in Washington or with your regiment?

A. I remained in Washington until ordered home by the War Department to await further orders. This calls to mind the fact that I returned to Cortland some little time before my discharge. The discharge is dated June 3d, 1862. Until this moment it had not occurred to me that I returned to Cortland in obedience to the order referred to some little time before my final discharge,
1830 which may have been a month or perhaps more. I say this in correction of my evidence of yesterday, that I did not return to Cortland until June 3d, 1862, while in fact I must have returned about the time of the order referred to, which must have been a month or so previous to June 3d.

X Q. 57. Were you ordered to report at Cortland?

A. I was ordered to proceed to my home and there await the further orders of my department, and upon that order I returned to Cortland.

X Q. 58. At the time of receiving that order were you in command of the regiment?

A. I was not.

X Q. 59. Previous to that, at any time after the regiment was mustered into the United States service, had you been in command of it?

A. The regiment was taken to Washington under my command, and with it I was placed in command of some forts east of Washington. A short time before the making the order sending me home to await further orders I had been relieved of my command.

X Q. 60. After returning to Cortland what further order came?

A. The next further order was the order mustering me out of service; the one referred to of June 3, 1862.

X Q. 61. When was the indictment found against you of which you have spoken?

A. Some time in January, 1862; I think the first part of January, 1862.

X Q. 62. You have spoken of a division of sentiment regarding yourself in Cortland which you attributed to certain causes, and which you speak of as having led you to avoid to some extent communication with the people there. Were there in the fall of 1861 many persons in Cortland of disloyal sentiment?

A. There were a large number of persons who indulged in disloyal sentiments and words.

X Q. 63. Were they a majority in the community?

A. I do not think they were. If they had been so nothing could have prevented bloodshed.

X Q. 64. Was Cortland an incorporated village?

A. It was.

1831 X Q. 65. Which political party was in the ascendency at the election?

A. I think the Republicans had the majority in the village generally; I mean to say the Republicans carried the elections, but the

Democrats exerted a strong social influence, and represented to a considerable extent the wealth.

X Q. 66. Was not the county a Republican county?

A. It was, I think.

X Q. 67. Was this indictment ever brought to trial?

A. It was.

X Q. 68. Where?

A. Before the oyer and terminer of Cortland county, at Cortland village.

X Q. 69. When?

A. In May, 1866, I think.

X Q. 70. With what result?

A. After a week's trial the jury disagreed; the jury stood six to six, each juryman being supposed to have voted according to his political sentiments, the six loyal men having voted for my acquittal, upon which result the court ordered the district attorney to enter *nolle prosequi*, upon the further condition that I should withdraw a suit then pending against the priest of my church for slander and related cussedness.

X Q. 71. Have you any personal knowledge of the position of the jurors in the matter, or do you simply relate rumors?

A. I do not; I am not at liberty to answer that question for fear of betraying confidences, and nothing would be gained by it.

X Q. 72. You, of course, were not present at any of the deliberations of the jury, were you?

A. I was not.

X Q. 73. Neither did you hear any of the deliberations of the jury, did you?

A. I did not.

X Q. 74. What crime was charged in the indictment?

A. Shooting Capt. McNett, with intent to kill.

X Q. 75. Was there a Capt. McNett in the regiment; was he shot?

1832 A. There was a Capt. McNett; he was shot.

X Q. 76. Seriously or otherwise?

A. Not seriously; the ball struck him on the chin and glanced off.

X Q. 77. As the result of the shooting, was he confined to the house?

A. He claimed he was so confined, but I believe this was a pretense, and I think this was generally so regarded by candid people.

X Q 78. Was this before he was mustered in?

A. It was after he was mustered in.

X Q. 79. Did he afterwards go with or to his regiment?

A. When the shooting occurred he was a member of my regiment; he was afterwards transferred to the Ninety-third New York?

X Q. 80. How long after was he so transferred?

A. Within a short time; this was done as a basis of settlement between him and myself; opposed by his friends.

X Q. 81. Did the shooting occur in camp?

A. It did; in the legitimate discharge of military duty.

X Q. 82. Was this conversation with your drill squad, in which you referred to a lead pencil by way of a model, before or after this shooting?

A. It was before.

X Q. 83. Give me the names of the persons composing that drill squad and who were present at this conversation.

A. There were no persons present except the members of the drill squad, whose names were Heman F. Robinson, James C. Carmichael, A. P. Smith, Byron Mudge, Dr. Todd, Dr. Hyatt, and Chas. M. Newcomb.

X Q. 84. Where were you when this conversation occurred?

A. I think we were in the Schermerhorn Hall.

X Q. 85. Are you positive it was not upon the road leading from the camp to the village?

A. I am positive that this conversation occurred at the
1833 drill hall, between this and the final conversation to which I
have referred; I did have a conversation with several of the officers upon the same subject while going from the camp to my house.

X Q. 86. Name those officers, please.

A. I am not so clear as to the personnel of the officers present on this particular occasion. I think, however, Ajt. Smith, Lieut. Col. Carmichael, Ajt. Robinson, and, perhaps, Lieut. Mudge were present.

X Q. 87. Were you examined as a witness in what is known as the Carman case?

A. I was.

X Q. 88. In your testimony in that case do you speak of more than two conversations of this character?

A. My present recollection is that I did not. I had several casual conversations upon this subject with different persons among these officers at times when they were perhaps not altogether. In my examination upon this subject I have confined myself, I think, to the two principal conversations.

X Q. 89. How many times have you been called as a witness in cases in which you were examined as to the point of your first conception of the alleged invention in your letters patent?

A. Perhaps four or five times; I do not now remember the exact number of times.

X Q. 90. Is not the present instance the first one in which you have spoken of more than two conversations with the officers or any of them about your invention prior to leaving with your regiment?

A. It may be so, and it may not be exactly so; I think my attention has never been called to that particular conversation until to-day; I can now remember other conversations upon the subject about that time with other persons than these officers.

X Q. 91. Do you mean to say that to-day for the first — you remember conversations with others upon this subject, occurring nearly twenty years ago, and which you did not speak of in your former examination in other cases whilst testifying as to priority of invention and communication of it to others?

1834 A. I did not.

X Q. 92. Why, then, do you say I can now remember other conversations with others about it?

A. The answer I should have given, perhaps, is that I still remember, and "now" was used in the sense of still.

X Q. 93. In any of those previous examinations have you mentioned the fact of having had such conversations with others aside from those officers?

A. I may have done so, but do not remember particularly as to that.

The further examination of this witness adjourned until Tuesday, August 10th, 1880, at 10 o'clock a. m.

General examination adjourned to Monday, August 9th, 1880, at 10 o'clock a. m.

TUESDAY, *Aug.* 10, 1880—10 a. m.

Met pursuant to adjournment.

Present: As before.

Cross-examination of N. W. GREEN, suspended August 7th until this morning because of the necessary absence of the witness, resumed:

Witness continues in answer to X Q. 93, interrupted by the adjournment, as follows:

A. My attention seems to have been mainly directed to conversations had when some one of the persons detailed to make the experiment were present.

X Q. 94. Can you give any other reason for not mentioning such statements in previous examinations?

A. None other occurs to me.

X Q. 95. In those examinations was not your testimony as to your first conception of this invention and the circumstances attending the statement of that conception to others given in response to one or two general questions and without your being particularly interrogated as to details?

1835 A. Possibly that may have been so.

X Q. 96. Do you not certainly know that it was so?

A. I think it was so.

X Q. 97. Question repeated.

A. I have no doubt it was so; it would be my best recollection it was so.

X Q. 98. Has it not been your aim in your examinations heretofore upon this subject to state all that would tend to establish and strengthen the priority of invention in yourself as against Mudge or Suggett?

A. It has, limited only by the question of pertinence and sufficiency of evidence.

X Q. 99. Name some of those others to whom you thus spoke of your invention, and give me their present places of residence.

A. I cannot undertake to recall at this distance of time everybody to whom I talked upon the subject; I am pretty well aware now, to-day, as I was then, of the habit I had of boring my friends with some of my new ideas; this was one of the topics on which I talked more or less at the time; I remember talking with Mr. W. O. Barnard upon this subject; perhaps his family were present; presume they were; I remember speaking of it before all the members of my own family and undoubtedly others; I talked on this subject about this time a good deal.

X Q. 100. Give me another name of one to whom you thus spoke.

A. I cannot with any certainty, but I think my nephew, Wallace W. Green, must have been present at some of these conversations.

X Q. 101. Give me the residence of Mr. Barnard and Wallace W. Green.

A. Wm. O. Barnard lives, I think, at Mason City, Iowa; Wallace W. Green lives at Orange, New Jersey.

X Q. 102. At the time you spoke to Mr. Mudge and others about putting down a well upon your premises did you suggest to Mr. Mudge to use in sinking the rod a post with an arm and a rope and a pulley?

A. I made a suggestion of a pulley and a rope as a possible means of withdrawing the rod; the suggestion was made inconsiderately by me, but the young men seem to have adopted it, and possibly of a post and an arm.

1836 X Q. 103. Is your recollection clear as to the post and the arm?

A. My recollection is not very clear as to the post and arm, yet they are all associated in my memory.

X Q. 104. Was there a stream of water near where this experiment was made?

A. There was.

X Q. 105. How far distant?

A. I should say about a rod from the experiment.

X Q. 106. Was the ground where the experiment was made low and the soil wet?

A. The ground was low, perhaps a foot or more, not to exceed a foot and a half above low-water mark in the creek; the ground would not be called wet; I had a crop of potatoes on the ground that year; they had just been dug a few days before the experiment.

X Q. 107. In your examination in the interference case did you not state that the experiment was after the conversation at your house with the drill squad, and that such conversation with the squad occurred at your house about the 20th of October, 1861?

A. I do not at this moment remember as to the particulars to which my attention is called; perhaps it is so.

X Q. 108. Will you say that this conversation did not occur as late as about the 20th of October, 1861?

A. I will not.

X Q. 109. In your examination in the interference matter you say: "I think about the 20th of October, 1861, I called together most of my original drill squad and some of the proposed officers of my regiment at my house;" that is the conversation to which I refer;

is that the conversation of which you have spoken as occurring at your house a day or two before this experiment was made?

A. I think it is.

X Q. 110. In that examination you further say: "After a full and very lengthy discussion of the subject I then said to Mr. Mudge, "You get my idea, and you are a mechanic, and to-morrow you will get a bar such as I describe and, make it ten or twelve feet long, to make this experiment, and about two inches in diameter, and if you
1837 can get it ready in time, and come to my house here to-
morrow, we will test the matter.' I said, 'I wish you to fully test my plan first before you try any other, and, if you succeed we will adopt that,' referring to the question of boring or driving, as between those two methods. 'I will detail Lieutenant Colonel Carmichael and Mr. Robinson to assist you in making the experiment.' Then the question arose what machinery could be adopted that would be sufficiently simple and cheap by which the bar can be driven down and withdrawn. I said to Mudge, 'You must be able to adjust some simple machinery by which you can do this. That is mere matter of detail. How would this do, have a frame to which you can attach a pulley arrangement for lifting the rod out?' I think I said, 'You are sufficiently ingenious, or your knowledge of machinery is sufficient to enable you to do this. Carmichael said that could be done, that he had some idea about that.'" Is that a correct statement of the conversation, so far as it goes, and were such statements made in such conversation?

A. I think that is a correct statement.

X Q. 111. Were you present at the commencement of that experiment?

A. If I left before the actual commencement of the experiment, it would have been but a few minutes previous to it. My best recollection is they were making preparations to begin the experiment when I left.

X Q. 112. Did you see the water standing in the tube that was sunk in the ground?

A. I cannot now recall that particular fact, but I distinctly remember seeing it flow from the spout.

X Q. 113. Do you remember how far below the top of the tube the spout was affixed?

A. I do not exactly.

X Q. 114. Were the tube and the pump one instrument, or were they separate articles attached by a screw or other joint. Please describe fully.

A. The tube and the pump, if the expression is not a contradiction, were one article. The tube of the pump was the lining of the well, and was a common boat pump made of tin.

1838 X Q. 115. Was not the top of the tube entirely open?

A. It was.

X Q. 116. By what means was the water raised within this tube? Describe the plunger. How was it constructed and how far down the tube did it pass?

A. I am unable to give details involved in the question, and I can only judge of the construction of the pumps by the work it performed. Judging from these facts, the pump must have been constructed in the usual way of making boat pumps, with a check valve at the foot, and the plunger being constructed probably in a conical form would have been able to lift off the air, in which case the water would have followed the stroke of the pump, and when the downward stroke of the plunger was made the foot valve would have closed and held the water above it, until finally the water would have reached the plunger valve and passed above it, due to its flexible character. The valve when moving upward, whether the water was above or below it, would have expanded and filled the pump barrel, thus producing a vacuum, and if the plunger valve was a reasonably perfect one it would produce this result and bring the water above the plunger after a few strokes, although an air space had existed at the beginning below the lowest reach of the plunger and the water level in the well.

X Q. 117. Did you not at one time testify that you left the ground before the experiment was commenced, and did not return until just as they finished it?

A. I think I did so testify substantially, and I mean to testify so still.

X Q. 118. After the tube was removed, did you observe whether the water remained standing in the hole?

A. I did not at the time, but did so observe a day or so afterwards. When I left the ground of the experiment the pump was still in the ground.

X Q. 119. At the time you observed the hole after the tube was removed, how near to the surface of the ground did the water stand in the hole?

A. I should judge about a foot. It may have been a little more.

1839 X Q. 120. How long was this after the tube was removed?

A. I do not know when the tube was removed, but this observation was made by me the next day or the day following.

X Q. 121. Were you present at the construction of the well on the fair ground, of which you have spoken in your direct examination?

A. I don't think I was there much, if any; I only remember positively of seeing the well when it was done, and pumping water from it; I may, however, have been there more or less.

X Q. 122. In your examination in the interference case did you not say, "I was not present at the sinking of the well at the camp; I saw it after it was made?"

A. I think I did.

X Q. 123. Was not the well at the camp, there spoken of, the same one to which you refer here as the well at the fair ground, and has it not also been called the well at the cook-house?

A. I so understand it.

X Q. 124. Have you any personal knowledge of the process used in constructing that well at the fair ground; by personal knowledge

I mean to exclude statements made to you by others and your inferences from the directions you had given?

A. I think I have not.

X Q. 125. Did you ever examine to ascertain or did you ascertain whether that well had a single tube only or had a smaller tube inclosed within a large tube?

A. I did not if I am to exclude the statements made to me by Mr. Mudge.

X Q. 126. Do you know or did you know, from personal inspection or observation, whether that well was made with but a single tube or was made with a tube inclosing a smaller inner tube?

A. I do not and did not.

X Q. 127. Can you tell me, from personal knowledge derived from actually seeing the tube or tubes, whether, if there were two tubes, there was or was not an annular space between the two?

1840 A. I cannot.

X Q. 128. How long after your return to Cortland, on or before the month of June, 1862, did you continue to reside at Cortland?

A. About four years, I think.

X Q. 129. During that time what proportion of your time was spent at Cortland?

A. I cannot answer accurately; I should say some years I was gone half or more than half the time; other years not as much.

X Q. 130. During the period while in Cortland were you engaged in any business in Cortland?

A. I was not, in the ordinary acceptation of that term; my business was looking after my military affairs and suits in which I was involved.

X Q. 131. Did you not have friends in Cortland with whom you conversed about matters and things in the village?

A. During the first year or so of the time referred to I did more or less; during the later periods of that time, I think, I fell into the habit of avoiding everybody as much as I could, and I remember no struggle of my life which taxed to a greater degree my will and my personal self-command than when, after the close of the trial, I sought to return to my old habits, and associating with men and doing business with them; a distaste for assemblies or any social intercourse had become the habit of my life.

X Q. 132. You have spoken of suits brought against you for matters connected with the regiment; state the number of such suits.

A. There was several suits by Wheeler and somebody—his partner—and I recall in one of them a trial in an adjoining town, and of judgment rendered against me, which involved a long litigation over a new trial which was granted, and then the account was audited by the Government. I recall another trial at Homer, another adjoining town, which lasted for several days and took a great deal of time and labor to prepare for; I distinctly 1841 remember the significant fact. I am unable to give the exact number of suits, and if I could do so a statement of the number of suits would in no sense convey any idea of the amount of work and care these defenses involved; I can now distinctly recall four suits of this character.

X Q. 133. By whom were those four suits brought and what amount of money did they involve?

A. Two of them were brought by Wheeler & Co., one of which involved the price of a valuable horse injured by over-driving and exposure by an officer of my regiment and without my permission or knowledge. Another was for certain livery bills of several hundred dollars, if I remember correctly, furnished at camp; another of the same character, brought by a Mr. Pulling, who claimed large damages—amount of which I am unable now to recall—for damage to his business and health, for having been induced by me, as he alleged, to volunteer in the defense of the country and enlisting in my regiment. The decision of the jury in this case was no cause of action. I do not now recall any of the other cases, but I may do so.

X Q. 134. When did you first hear of Mr. Mudge putting down other wells beside the one at your house and the one at the camp ground?

A. I think some time in December, 1865.

X Q. 135. In your testimony in the interference case did you not say, "I have never given my assent to Mr. Mudge putting down any other wells except the one at my house and the one at the camp ground; I think I did not know of his putting down any other well till about two years afterwards, and then I heard that he was putting down other wells, which is all I know about that?"

A. I think I did.

X Q. 136. Will you testify positively that you did not have the conversation with Mr. Woodruff which in your direct examination you say you have no recollection of having?

1842 A. Well, I would testify as positively as I would to anything under similar conditions. I have no recollection of it and I do not believe I did have. If it occurred at all it could not have been under the circumstances stated by Mr. Woodruff.

X Q. 137. Have you any knowledge of your own that what you call your first application was ever filed in the Patent Office?

A. I have not. The application was sent to Mr. Ward for that purpose.

X Q. 138. Do you claim to have invented any apparatus whatever for the making of wells?

A. I do.

X Q. 139. What?

A. I invented and patented a grapple for withdrawing driven-well rods and tubes; the driven-well point now in use I claim as my invention, though it was not patented.

X Q. 140. Did you in your original patent include within the specification these words: "I am aware of James Suggett's patent of March 29, 1864, and I disclaim all secured to him therein?"

A. I think so.

X Q. 141. Do you not know so?

A. I did.

X Q. 142. Does not the claim of James Suggett's patent of March 29, 1864, read as follows: "What I claim as my invention and desire to secure by letters patent is the perforated pipe *a* with the pointed end *b*, constructed as a drill and united with a pump, all substantially as shown and described?"

1843 A. I think it does.

X Q. 143. During the year 1861 or 1862 were you in the State of Iowa?

A. I was not.

X Q. 144. Do you claim that a well made by driving an iron tube into the ground, and thence far enough to project into a water-bearing stratum in the earth, and attaching a pump to it and pumping water through it, is an infringement on your patent in suit?

A. I do.

X Q. 145. Did you not know of iron pumps being used long before 1861, and that in order to pump water they must be attached to the tube by an air-tight connection?

A. I did.

X Q. 146. Do you claim that you have a patent on attaching a pump to a tube by an air-tight connection, or that such has not been the practice so long that it is not patentable, and was not in 1861?

A. I do not.

X Q. 147. Did you, during your examination-in-chief, take from your pocket, and frequently refer to, a memorandum book?

A. I did, qualifying the word frequently.

X Q. 148. Were some of those references made after a question was asked you, and before your answer was given?

A. I think they were in one or two cases, but referred entirely to dates relating to the history of my regiment.

X Q. 149. At the time of the surrender of your original patent had you made an unconditional assignment of the territory embraced within the State of New Jersey, or a portion of it?

A. I had.

Cross-examination closed.

Redirect:

R. D. Q. 1. In your last answer you say that you made an unconditional assignment of the State of New Jersey. Did or did not that assignment contain the reservation usually put into your assignment, excepting for use of the U. S. Government for naval, military, and cemetery purposes?

1844 A. When I answered the question on the cross-examination the reservation for military and other purposes did not occur to me, and I am not certain now whether that clause was in the deed to B. F. Green or not; am inclined to think it was.

R. D. Q. 2. You have stated that your sister, Mrs. Windsor, lived in Warsaw until about five years ago. Did she live in the village of Warsaw, or did she live upon the farm, as you have stated, about three miles from the village?

A. I think she lived alternately in the village and on the farm. I am unable to give the dates at which she lived at each respectively.

R. D. Q. 3. Did you during the time you resided in Dansville, which you have stated to be from about 1847 until you removed to Cortland in 1859, visit your sister at her residence in the village of Warsaw?

A. I did not. The one visit I made her during that time found her living on the farm.

R. D. Q. 4. Do you know Timothy H. Buxton, of the village of Warsaw, Wyoming Co., N. Y, and do you know in what business, and where it was located, he was engaged in at any time after the year 1845?

A. I do know Timothy Buxton, and knew him in about 1843 and '44. At that time he was sheriff of the county and had a wagon shop. If I remember correctly his wagon shop was on Main street near where the race crosses Main street, between that and the old hotel. It is so long ago I am not very clear in my recollection about it.

R. D. Q. 5. Did your sister, Mrs. Windsor, when in the village, reside near the Buxton wagon shop?

A. She did not, not very near—that is to say, it was not the adjoining building. There was a hotel between, and may have been other buildings, and they were not on the same street. If I remember correctly, Mrs. Windsor lived on a street the name of which I cannot recall.

R. D. Q. 6. During the entire years of 1858, 1859, 1860, 1861, and 1862 were you or not ever upon the premises occupied by the Buxtons as a wagon shop?

A. I was not, neither was I during those years ever in the village of Warsaw.

1845 R. D. Q. 7. Did you at any time during those years ever know of or hear of there being a driven or tube well upon those premises?

A. I did not.

R. D. Q. 8. In cross-questions 100 and 101 you were asked to give the names of parties other than the numbers of your drill squad to whom you had explained the method by which you proposed to obtain water from the earth for the use of your regiment; you named Wm. O. Barnard and Wallace W. Green only. Now, I ask whether or not you had similar conversation with any of the following-named persons, then residents of Cortland: Hiram Crandall, Charles C. Taylor, Eustace D. Dibble, F. D. Wright, Thomas Keator, Mrs. Emeline Reynolds, William P. Randall, and Capt. Grover, of your regiment.

A. Most of the persons named are some of the citizens of Cortland with whom I was very familiar and with whom I was constantly in the habit of discussing questions of this sort, and it could hardly have been possible that they could have escaped hearing me discuss this question. I cannot recall conversations with all of these persons upon this subject. I am quite sure I had conversations upon this subject with Mr. Taylor, Judge Crandall, Eustace Dibble, and Mrs. Reynolds, and I may have had, and probably did have, with the others.

R. D. Q. 9. Was the tin liquor pump you have spoken of as being used at the house experiment a new pump made expressly for the purpose, or was it a pump that had been used and borrowed for the purpose?

A. I am quite sure it was not a new pump, and I understood at the time it had been borrowed for this experiment.

R. D. Q. 10. Had or had not that pump attached to its lower end a tube which extended down some feet below the bottom end of that pump as originally made?

A. I don't recall the pump, except as I saw it in the ground; I have associated in my mind as a part of that transaction that the pump was seven feet long.

1846 R. D. Q. 11. Was it such a pump as regards length as is ordinarily used to pump liquor from barrels?

A. I should say from what I have stated above that it must have been longer than those originally used as a liquor pump.

R. D. Q. 12. Do you know how that additional length was obtained?

A. I do not, but I have a recollection in some way that an addition was made after the experiment was commenced.

R. D. Q. 13. You have been asked, in relation to evidence given by you in the interference case, if you did not there testify that after the sinking of the well at the camp, "I think I did not know of his putting down any other well until about two years afterward, and then I heard he was putting down other wells; which is all I know about that." In this examination you have testified that the first knowledge you had of wells being put down by your method was late in the year 1865. Please state what has enabled you now to fix that date.

A. The exact date has been recalled to my mind by the pamphlets handed me by Dr. Todd and the advertisements which I remember to have pasted into the pamphlet, and I know the first knowledge I had of the operations of Mudge and Suggett was brought to me by Dr. Todd at about the time indicated by the date of those advertisements, which was December, 1865.

R. D. Q. 14. In answer to cross-question you stated that you did not of your own personal knowledge know that your first application for a patent upon the driven well was filed in the Patent Office. Please state what information you had upon the subject, and how it was obtained.

A. I had a letter from Mr. Ward, member of Congress, stating the fact that he had put it on file regularly, as he supposed, and upon inquiry found that the application was not on file, contrary to his expectations.

R. D. Q. 15. What became of that letter?

A. I inclosed it to William D. Andrews & Bro. That is the last I remember of seeing it.

1847 R. D. Q. 16. Did you understand from Mr. Mudge that he had put down the well at the fair ground in accordance with your method and in a manner to utilize your discovery?

A. I did.

R. D. Q. 17. Mr. Byron Mudge has been called as a witness by defense in a suit brought by William D. Andrews and others against George Hovey, which testimony is, by stipulation and agreement, to be used in this suit of William D. Andrews and others against George Leland in the same manner and with the same effect as if taken specially in this suit. On that examination Mr. Mudge, in answer to direct question 40, testified as follows: "In making that well on the fair ground I used for the first few feet a metal tube, perhaps two and a half or three inches in diameter, possibly a little more than that. I am not fully positive as to diameter. Inside of that tube I forced a rod down to or into the water, which I withdrew and inserted in its place a pipe prepared with a point, the pipe having holes drilled into it for the admission of water for a few inches from the bottom and the pump attached to the pipe;" and in answer to direct question 41, which was, "How far down did this metallic tube go that you say was two and a half or three inches or more in diameter?" he said: "It may have been four feet from the surface;" and in answer to cross-question 65 he says: "I should not consider it a driven well. I cannot imagine how it could be a driven well, unless the earth was compact about the tube." Now, I ask you, if that well was put down in accordance with the testimony of Mr. Mudge as quoted in my question, whether, when a cast-iron pump was attached to its upper end and water procured from it by means of a pump, the method of your invention was embodied and your discovery utilized by the well and pump so arranged.

1848 A. It certainly was fully embodied and utilized.

R. D. Q. 18. How had the water for the uses of the mess-house and regiment been obtained previously to the putting down of this driven well in the cook-house?

A. There was quite a want of water above the supply furnished by the dug well on the fair ground, which was an indifferent one. I think this deficiency was supplied partially by carting water from neighboring wells. I think there were three wells on the fair ground from which part of this deficiency may have been supplied also.

R. D. Q. 19. After the making of this driven well upon the fair ground did it or not alone supply sufficient water for all the uses of the regiment?

A. As I understand it, it did and furnished an ample supply.

R. D. Q. 20. Had that well been made with the outer tube, two and a half or three inches in diameter, sunk down into the earth into the water stratum, and the inner tube, being one-half inch less in diameter, passing down into the water stratum, the space between the two pipes down to the extreme end of the inner pipe being open and free from earth, and the space between the two pipes below the surface of the water being occupied by water alone, to the surface of which air had free access, and a pump should be attached by an air-tight connection to the upper end of the inner smaller suction pipe and the pump operated, would or would not such a supply of water as was furnished by that driven well in the mess-house be obtained by such a well so arranged?

A. It could not, in my opinion.

1849 R. D. Q. 21. By whose suggestion or advice was the disclaimer in your patent (which is as follows: "I am aware of James Suggett's patent of March 29, 1864, and I disclaim all secured to him therein," which disclaimer appears in the specification of your patent No. 73425, issued January 14, 1868), inserted therein?

A. When — the interference case, which was decided in my favor after a long contest, in which Suggett and Mudge and myself were contestants, the attorney for Mr. Suggett appeared and asked the commissioner to protect his client by requiring me to make that disclaimer, and the commissioner, for some reasons which appeared to him sufficient, granted the request, and the decision was accordingly made, subject to that condition, against my protest.

R. D. Q. 22. By whose suggestion and whose advice was this disclaimer omitted when your patent was reissued?

A. At the suggestion and advice of my attorney, George Gifford, Esq.

R. D. Q. 23. You were asked on the cross-examination whether you saw the water standing in the body of the pump used in the experimental well at your house, and you answered that you did not recall the fact of seeing the water standing, but that you saw it running from the spout or nozzle, or words to that effect; now, I ask whether, when the plunger was being forced down, the water continued to run from the nozzle, making virtually a continuous stream when worked rapidly.

A. It did; when the answer was given on the cross-examination my mind was on the question, as I understood it, whether I did see the water in the barrel of the pump above the nozzle when looking into the top of the pump. I do not remember to have looked into the top of the pump.

R. D. Q. 24. I hand you what purports to be the patent of Elias S. Hovey, which patent has been set up in the answer to this suit as being an independent invention, the use of which does not infringe your reissue patent and the invention therein described, but that it accomplishes a different result in an independent manner. The claim in that patent is as follows:

1850 "The method or process of making drive wells, hereinbefore described, the same consisting in the use, in the first instance, of the temporarily coarsely-perforated tool or tube end represented in Fig. 1, followed by the introduction of the permanent, finely-perforated or gauze-covered tube, as and for the purpose set forth."

I also hand you a pamphlet, purported to be published in 1868 and bearing upon the back of its title page the following imprint: "Entered, according to act of Congress, in the year 1868, by Cowing & Co., in the clerk's office of the district court of the United States for the northern district of New York;" of which I offer the first page of the cover, the title page, and endorsement upon the back of the title page, together with the seventeenth page, as Complainants'

Exhibit Cowing & Co., 1868, duplicated, the same having been previously offered as an exhibit in the case of William D. Andrews and others against George Hovey, December 10, 1879, and was then marked with the initials of the notary, "E. C. W." I ask you to look at the third page of this pamphlet and to say whether or not the statement there printed as to its filing in the district court of the United States, northern district of New York, is correct as to its date, and if the pamphlet, with the pages to which your attention is called, was issued at the time it purports to have been, viz., 1868.

1851 A. It is correct, and the pamphlet was issued, to my certain knowledge, about that date, viz., 1868; I had this copy in my possession in the last part of that year or fore part of 1869; the cut on the cover and page 17 was made after a discussion between myself and a Mr. Cowing, a member of the company of Cowing & Co., Seneca Falls, N. Y., and at Seneca Falls, N. Y., in which the conclusion was reached by us both that in the case of any driven well when the pump was operated the effect would be to draw the sabulous particles from the coarser gravel and sand as represented in cut on page 17 and cover.

R. D. Q. 25. I ask you to read and let the notary take down the printed matter under the cut on page 17, and then to say whether that cut and the matter printed thereunder does or does not show and describe the same operation and result as is claimed to be accomplished by the patent of Elias S. Hovey, to which your attention has been called.

A. "Sectional view of the well," illustrated in connection with the pumps shown under Fig. 214 and Fig. 215, representing the points as surrounded with gravel from which the sabulous particles have been withdrawn, which is generally the case, excepting where they terminate in quicksand. They do describe the same operation and result.

R. D. Q. 26. In making a driven well what is your experience in regard to pumping up the finer particles of earth and sand from the immediate vicinity of the pipe, and whether or not the result as shown in the cuts on the first page of the cover and the
1852 seventeenth page of the pamphlet and described on said seventeenth page actually occurs?

A. It does necessarily do so.

Redirect rests.

Recross-examination:

R. X Q. 1. How do you know that the result spoken of in your last answer necessarily occurs?

A. I come to this conclusion from practical experience in making wells; we find, until the finer portions of the sand can be removed, no desirable flow of water can be obtained, and that whenever we can succeed in getting a sufficient flow started through the pump to bring up all particles of sand that can get through the screen the well is finished and a practical success.

R. X Q. 2. Have you not driven wells in cases where the perforated point of the tube was covered or lined with wire gauze at the time it was driven into the ground?

A. I have; but no intelligent well driver will use gauze or wire cloth of any kind either to cover or line the perforations of his point.

R. X Q. 3. Have you not driven wells in which the perforations of the tube were covered or lined with wire gauze or cloth, the interstices of which would not admit of the passage of grains of sand larger than an ordinary mustard seed through them?

A. Yes; I have.

R. X Q. 4. Do you not know that numbers of wells have been driven, from any one of which less than a table-spoonful of sabulous matter was pumped out?

A. I have; and sometimes those have been the best wells.

R. X Q. 5. Have you any distinct recollection of seeing the pump which was used in the experiment near your house, except as it stood in the ground?

A. I am not sure that I have; I have since seen a pump said to be the same one.

R. X Q. 6. Do you know the present whereabouts of ex-Congressman Ward who wrote to you about your patent?

1853 A. I do; his residence is Belmont, Allegany county, N.Y., but his official residence is now at Albany, N. Y., being attorney general of the State of New York.

R. X Q. 7. Did you ever obligate yourself to pay, offer to pay, or, in fact, pay for any of the materials used in constructing the well at your house or on the camp ground?

A. I did not.

R. X Q. 8. Suppose a tube two and a half to three inches in diameter was driven into the earth, displacing the earth as it was driven in and compacting the earth about the tube until a water-bearing stratum was reached and pierced to some extent, such tube being provided with openings at or near its lower end for the admission of water, and a stratum thus reached and partly pierced should prove to be an artesian basin, causing a steady flow from the stratum to or above the surface of the ground, would the construction of a well in this manner be claimed by you to be an infringement of your patent as reissued?

A. Whether it was an infringement of my patent or not would depend upon other circumstances of its construction not included in the question. My experience shows me that a driven well cannot generally be made, and I believe never, without using the whole process, which includes the putting on the pump, and by that means relieving the bottom of the pipe of the fine particles of sand by which the flow of water is started; if this is done and the whole process of making the driven well is used, the mere fact that the well afterwards overflows will not take the well out of its liability to my royalty.

R. X Q. 9. If no pump is used, but the pressure of the fountain head sends the water through the perforations into the tube and through the tube to the surface of the ground, would, then, a well constructed as stated in R. X Q. 8 be an infringement of your process as covered by your reissue patent?

1854 A. We claim that it does under the circumstances stated, but I am free to say I am not prepared to give an opinion upon the peculiar circumstances stated; I am inclined to think it is our well, and we are entitled to the royalty, if I have understood the question clearly.

R. X Q. 10. (Question re-read to witness.) Have you any different answer to make?

A. I incline to think it is an infringement of the reissue patent.

R. X Q. 11. Wherein does the novelty of constructing a well of that kind by that process consist?

1855 A. As a means of procuring water from the earth, and as a part of my process for the driven well, the driving of a pipe into the earth as described is novel.

R. X Q. 12. Suppose there is no fountain head to supply a flow,
and a tube is placed within the larger tube, and a pump at-
1856 tached to such smaller tube, and an annular space exists be-
tween the two tubes into which the water rises, would a well
thus constructed be constructed in accordance with process claimed
in your reissue patent?

A. If the atmosphere rested upon the water inside the larger tube and outside the smaller tube, it would not, as I understand it.

R. X Q. 13. In such a case would the question of similarity of process consist in the exclusion from the surface of the water occupying the annular space of direct atmospheric contact?

A. I think it would.

5.45 p. m., Aug. 10th, 1880.—Adjourned to meet at 10 o'clock a. m., Wednesday, August 11th, 1880.

[SEAL.] LEONARD A. GIERRICH,
Notary Public (31), *N. Y. C.*

WEDNESDAY, *August* 11, 1880—10 o'clock a. m.

Met pursuant to adjournment.

Present: As before.

R. X Q. 14. Have you since the last adjournment had any conversation with any of your co-complainants in this case about the scope and extent of the claim in your reissued patent?

A. I have not as to the general scope and extent of my claim. Mr. Andrews called my attention at the end of the examination last evening before we left the room to redirect cross-question No. 12, saying he thought I had misunderstood the question, which I find, on hearing it read, I did.

R. X Q. 15. I now hand you a certified copy of the Mudge patent, No. 50614, and, calling your attention to the drawings annexed thereto, ask: Do those drawings show any apparatus of which you claim to have been the inventor; and, if so, what?

A. I do not recognize any apparatus of which I am the inventor in these drawings.

R. X Q. 16. Suppose a well was constructed by boring a hole of, say, from one to three inches diameter in the earth by means of any instrument, the earth during such borings being lifted out of the hole—in other words, removed upward to the surface of the
1857 ground—until the water-bearing stratum is reached, and then the tool or instrument with which the boring is effected is removed from the hole thus made, and the tube, containing openings in or near its lower end, is placed within the bore then made, the sides of such tube fitting snugly and firmly against the upper portion of such bore, and after the tube is thus placed within the bore a pump is attached thereto and water is thereby brought to the surface, would a well thus constructed be constructed in accordance with the process claimed in your reissue patent?

A. It would. It is a well-known fact among well drivers that no bore can be extended into a water-bearing stratum by the ordinary process of boring, and if it could be so done when the auger was withdrawn the pipe on being inserted in the bore must be driven or forced into the water-bearing stratum to a depth such as that the perforations of the pipe would be covered by the water.

R. X Q. 17. Suppose a well was constructed by boring a hole in the earth by means of any instrument, removing the earth upward during such boring, following the instrument with a tube to prevent the caving of the sides of the bore until a water-bearing stratum was reached, and then tightly compacting the earth about the upper end of the tube, attaching a pump to the upper end of such tube, and by means thereof bringing water to the surface, would a well
1858 thus constructed be constructed, as a matter of fact, in accordance with the process claimed by you in your reissued patent?

A. A well thus constructed would be at least a mechanical equivalent to my process, and when used would be an infringement of my reissued patent.

R. X Q. 18. Do you, then, regard it as an essential part of your invention that your well should be constructed "without removing the earth upward as it is in boring?"

A. I think, as a matter of practice, the best way to make a well is according to my process, if that is what the question calls for.

R. X Q. 19. Question repeated and a direct answer requested.

A. That is the theory of my patent.

R. X Q. 20. Question again repeated.

A. I do.

R. X Q. 21. Were those words "without removing the earth upward as it is in boring" contained in the claim attached to or forming a part of the specification of the patent which was surrendered and upon the surrender of which your patent was reissued?

A. I think not.

R. X Q. 22. Would a well constructed by the process of drilling through rock into a water-bearing stratum and removing the borings upward, placing within the bore thus made a tube with openings at or near the bottom for the admission of water, attaching a pump to such tube, and by means thereof bringing water to the surface, be constructed, as a matter of fact, in accordance with the process claimed in your reissued patent?

1859 A. A well thus constructed might be a mechanical equivalent in certain soils as to the process and as to its use; if I have understood the description it would be an infringement of my patent.

R. X Q. 23. Please state in what respects such a well thus constructed would be the mechanical equivalent of a well constructed by your process?

A. If the tube was so inserted into the soil and rock by any means under any circumstances that I can conceive by which the direct pressure of the atmosphere was cut off, or if any part of the pipe passed through soil instead of rock and the same conditions existed as to this part of the soil with reference to the air, then this would be clearly a mechanical equivalent to my process and its use would utilize my discovery.

R. X Q. 24. Describe that discovery.

A. That if the direct pressure of the atmosphere is cut off from the surface of the water-bearing stratum from which the water supply is drawn, that then and in that case the indirect pressure of the atmosphere will intervene and throw the water to the pump with a force equal to the weight of the atmosphere in addition to the weight of the water, less the friction through the sand, and that the water supply under these circumstances in favor of the driven well over that of a dug well will thus be the weight of the atmosphere thus described.

R. X Q. 25. Do you claim that, as a matter of fact, the process of
constructing a well by placing a tube by any means within the
earth until it enters a water-bearing stratum, such tube being open
at the bottom or near the bottom to allow the water to enter, and
having the earth tightly compacted about its upper end, such tube
provided with a pump by means of which water is raised to
1860 the surface, is the mechanical equivalent of the process set
forth in the claims in the specifications attached to your reissued patent?

A. I think it would be.

R. X Q. 26. Have you any doubt about it?

A. I have not.

R. X Q. 27. Do you mean that you have no doubt as to the one being the mechanical equivalent of the other?

A. I mean to say that if the same result is produced as by my process by any other means—which I understand by the question to be the case stated—that the two cases will be the mechanical equivalents of each other.

R. X Q. 28. Suppose a well to be constructed by removing the earth by digging, as in an ordinary well, until water is reached, then placing a half barrel or similar contrivance inverted therein and passing a pump tube down from the surface of the ground into such contrivance, and then filling the hole thus dug with the earth originally taken therefrom and compacting it tightly about the tube until the hole thus dug is filled with earth tightly compacted about the tube up to the original surface of the soil, and then attaching a pump to such tube and by means of such pump drawing water to the surface of the ground, would such process of constructing a well be in fact a mechanical equivalent of the process claimed in the specification attached to your reissued patent?

A. I think it would; understand by the description as I do, that my discovery will be utilized when the pump is operated; of course, I do not see what important connection the barrel has to do with the construction, and I doubt if a successful well generally could be made as described if I have understood it correctly.

R. X Q. 29. Do you not know, as a matter of fact, that a number of such wells had been thus constructed and were in active operation in the village of Warsaw at the time of your residence in that village?

1861 A. I do not, and I never saw, nor until now did I ever hear of, the existence of any such well or wells in Warsaw.

R. X Q. 30. Do you not know that wells constructed as stated in R. X Q. 25 were in existence and actual use years before the year 1861, in and about the city of Syracuse, for the purpose of raising salt water?

A. I do not so understand the construction of the salt well, but I am not familiar with that subject.

R. X Q. 31. Do you not know for years prior to the year 1861 wells have been constructed by the boring or drilling through rock into a water-bearing stratum, placing a tube tightly therein, and attaching a pump to such tube, by means of which water was raised to the surface?

A. If the fact is as stated, I do not know it.

R. X Q. 32. Did not the lot upon which your sister lived in Warsaw run back to or nearly to the rear end of the lot occupied by the Buxton wheelwright shop?

A. I do not remember as to that; I think they did not meet.

Cross-redirect examination closed.

Redirect resumed:

2 R. D. Q. 1. Have you been advised by counsel that, having made a discovery, and having employed and described certain names by which that discovery was and could be utilized, that any person utilizing that discovery and producing the same result by other mechanical means than you described in your patent would thereby infringe upon your patent?

A. I have been so advised.

2 R. D. Q. 2. Have you also been advised by counsel that the making of a well by driving a tube into the earth without removing the earth upward, and then procuring water therefrom, by whatever means, was new, patentable, and of itself covered by your patent?

A. I have.

1862 2 R. D. Q. 3. And have the answers you have given in reply to the question of the counsel for defense been based upon your understanding of the construction of your patent thus obtained from your counsel? This question applies to all your answers concerning the construction of your patent and to the suppositious cases proposed by the counsel for defense.

A. My answers have been so given.

2 R. D. Q. 4. Would the wells as described in R. X Q. 28, in which a half barrel, or some other contrivance, is described as being inserted in the earth and covered with earth, utilize your discovery, unless the upper end of that barrel was below the surface of the water in the earth, and thus exclude all air from the surface of the water in the well formed by this half-barrel?

A. I think, if situated as stated in this question, it would utilize my discovery; it would utilize it equally if the lower end and the whole barrel is above the surface of the water-bearing stratum.

2 R. D. Q. 5. If the air was not excluded from the surface of the water within the barrel, would your discovery be utilized?

A. It would not.

2 R. D. Q. 6. We desire the presence of your son, Mason A. Green, and of your wife, Julia A. Green, as witnesses in this case, and our term for taking testimony, as at present arranged, expires on Saturday, August 15th; please state whether those parties can be produced here as witnesses previous to that date, giving the reason for your answer.

A. My son, Mason A. Green, is in London, England, and it would be impossible to get him here at that time; Mrs. Julia A. Green is at Bethlehem, New Hampshire, in the White Mountains, and is not
well; whether she is able to come here immediately or not I
1863 do not know, but should think it doubtful; if necessary, I
will take such measures to get her here as would be reasonable under the circumstances.

Third recross-examination:

3 R. X Q. 1. Where does Julia A. Green reside when at home?

A. In this city, No. 54 West 46th street.

3 R. X Q. 2. When did she leave this city for the White Mountains?

A. I think about three or four weeks ago.

3 R. X Q. 3. When did Mason A. Green leave this country for Europe?

A. I think it was about four months ago.

3 R. X Q. 4. How long before he left were you aware of his intention of going?

A. I have been aware of his intention or wish to go for a year or two; I was not certain that he would go until a month or so before he started.

3 R. X Q. 5. Referring to 2d R. D. Q. 5, I ask if the air was excluded from the surface of the water within the barrel by the tightly compact earth resting upon the barrel and shutting off communication between the water in the barrel and the air above the barrel, would your discovery be utilized?

A. It would.

3 R. X Q. 6. What counsel gave you the advice spoken of in 2d R. D. Q. and answer No. 1?

A. For one, George Gifford, Esq., of this city, and I think I have heard all my attorneys, or nearly all, discuss that question in one form or another and at various times, and I never remember to have heard this legal proposition doubted by any lawyer familiar with patent principles, or, indeed, by any intelligent layman.

3 R. X Q. 7. And is this suit in any degree the result of such advice?

A. I believe this and all other suits that have been brought in vindication of my patent claims, and which have thus far resulted in what seems to me the fullest possible vindication of them before
learned judges of the highest character known to the United
1864 States courts, have always been brought with the full recognition of the entire soundness of these propositions.

3 R. X Q. 8. Referring to the answer just made, I ask, categorically, are you a complainant in this suit, and have you a direct personal, pecuniary interest in its result?

Fourth redirect examination:

4 R. D. Q. 1. When did you first inform Mr. Andrews, who is here conducting this suit, that your son was in London and your wife in the White Mountains?

A. I did so yesterday in this room, in answer to a question from him if they could be got here immediately.

4 R. D. Q. 2. When, previous to last week, had you seen and conversed with Mr. Andrews?

A. I don't now recall the exact time, but over a year, I think.

4 R. D. Q. 3. Had you, previous to last week, any personal knowledge of this particular suit, or had you been informed concerning it by Mr. Andrews or by any counsel employed in the suit by letter or otherwise?

A. I had not, so far as I recollect.

4 R. D. Q. 4. In the 3 R. X Q. 5 you asked a question, predicated upon statements, as follows: "I ask if the air was excluded from the surface of the water within the barrel by the tightly compact earth resting upon the barrel." Now, I ask whether any earth through which water can pass could be so tightly compacted as to cut off communication between the water in the barrel and the air above?

A. I don't think it could.

Fourth R. X:

4 R. X Q. 1. Is there any more difficulty about compacting earth above a barrel so as to shut off atmospheric pressure than there is about compacting it over one of those cavities in the earth shown in the cut on page 17 of your last exhibit?

1865 A. Perhaps not, but the conditions of the two cases are different; in the case referred to in the cut the earth is tightly packed about the tube as a mechanical result of the process of driving.

4 R. X Q. 2. To what distance from the tube does that compacting ordinarily extend?

A. I do not know.

4 R. X Q. 3. Do you and Mr. Andrews live in the same city?

A. We do.

4 R. X Q. 4. How long has that been the case?

A. Perhaps something over two years, but my business office is at Springfield, Mass., and during that time I have spent most of my time there or that vicinity and other places in pursuance of my business. I am at home but very little.

4 R. X Q. 5. And yet all this time you knew the place of business of Mr. Andrews, did you not?

A. I did, and have been at his office on Broadway, but haven't happened to meet Mr. Wm. D. Andrews there, the Mr. Andrews to whom, I suppose, the cross-question last made referred to; and I also have to state that the management of the legal business growing out of the vindication of my patent are mainly under the personal supervision and management of Mr. Wm. D. Andrews, now present and referred to in a previous answer.

4 R. X Q. 6. Do you know of any difficulty in the way of Wm. D. Andrews communicating with you for the past three months, either by letter or telegram?

A. I am not aware of any.

Fifth redirect ex.:

5 R. D. Q. 1. Look at the cut on page 17 of the exhibit referred to in 4 R. X Q. 1 and the printed description underneath the same and say whether any cavity is there shown or described or whether mere openings between the larger particles of sand and gravel are shown and described as being formed by the removal therefrom of the sabulous particles?

1866 A. It is mere openings, and no cavity clear of gravel is shown.

5 R. D. Q. 2. And are or are not the portions of soil as shown in those cuts intended to represent them as being entirely below the surface of the water in the earth?

A. They are.

5 R. D. Q. 3. And from the proportions, as shown by the part of the pipe in which are perforations, how far below the surface of the water in the earth would those portions of soil from which the sabulous particles were removed be below the surface of the water in the earth. And state in answer to the question how far below the surface of the water it is the custom and best practice to drive the uppermost openings for the admission of water in the lower end of the tube.

A. I don't think the drawing indicates very clearly the upper surface of the water; if the first line above the partial vacuum in the left-hand well may be regarded as the surface of the water, the upper perforations would be over a foot below the water surface; no part of the perforations of a pipe, even for a common hand well, should be left, if it can be avoided, less than two feet from the upper water surface, but the rule is always, or should be, to drive the point to the bottom of the water-bearing surface.

Fifth recross-ex.:

5 R. X Q. 1. Do you undertake to say that sabulous matter can be removed from the interior of the earth without leaving cavities?

A. I do; without leaving cavities other than the space between the coarser particles of sand and gravel, which are too large to pass through the perforations of the point; in short, I mean that the sand that can pass through the perforations of the pipe will necessarily be drawn to the surface by the action of the pump, and that the coarser particles which cannot get through the perforations will remain packed about and outside of the point.

5 R. X Q. 2. Are not those openings cavities?

1867 & 1868 A. Perhaps, in a comparative sense, they are, but they would be more properly called a filter, through which the water more readily reaches the well tube.

Recross closed.

[SEAL.] (Signed) N. W. GREEN.

Sworn and subscribed to before me this 11th day of August, 1880.

[SEAL.] (S'g'd) LEONARD A. GIEBERICH,
Notary Public, N. Y. Co. (31).

1869 JOSEPH L. GALT is now offered as a witness by complainants.

The witness, being duly sworn, deposes and says:

Q. 1. What is your name, age, residence, and occupation?

A. Joseph L. Galt; 39 years; New York city; not permanently employed at present; recently publisher.

Q. 2. Were you or not, in the fall of 1861, connected with the 76th regiment at Cortland, New York?

A. I was.

Q. 3. Was Col. Nelson W. Green also connected with that regiment?

A. He was.

Q. 4. How were you and how was he connected with it?

A. He was colonel and I an acting lieutenant.

Q. 5. State whether Byron Mudge, Heman F. Robinson, and James C. Carmichael were also connected with the regiment.

A. They were.

Q. 6. Where was the regiment stationed and encamped?

A. At the fair grounds, between Homer and Cortland.

Q. 7. Where did Col. Green reside?

A. Near Cortland; between the camp and the village.

Q. 8. What portion of their time did Carmichael, Mudge, Robinson, and yourself give to the organization and business of the regiment?

A. Seemingly our entire time.

Q. 9. What was the name of the camp?

A. Camp Campbell.

Q. 10. What, if anything, do you know about the invention of a new method for procuring water from the earth, made in the summer or fall of 1861, and now generally known as the driven well?

A. I heard Col. Green explain to other officers and myself
1870 a process he had conceived for getting water out of the earth
by means of a pipe or bar driven into it.

Q. 11. Please explain that method, as proposed, for getting water from the earth, as well as you are able.

A. Col. Green illustrated it to us by taking a pencil from his pocket and saying: He would force a bar into the ground until it reached the water-bearing stratum, withdraw the same, and substitute a pointed pipe with holes from the bottom upwards; he used a pencil—a pointed pencil—as an illustration; he said he would then attach a pump to the top of the pipe and draw the water directly from the water-bearing stratum; that is, as near as I can recollect, his language, his explanation.

Q. 12. Had you ever before heard of such wells or heard a description of them?

A. I had not.

Q. 13. When, if you know, was the first well of this kind put down in Cortland village? And say, please, whether you make your statement from personal knowledge or from current information only.

A. At Col. Green's residence; according to current information at the time.

Q. 14. About what time was this well put down, as you are informed?

A. Best of my information, September or October, 1861.

Q. 15. Was there any other well of the kind put down near there?
And, if so, state when and where it was.

1871 A. There was another well afterwards put down on the
camp ground in the same manner, as I am informed.

Q. 16. Whereabouts on this camp ground was this well put?

A. In the cook or mess-house.

Q. 17. Do you know whether or not soldiers belonging to the regiment were detailed and assisted in making that well?

A. I so understood and believe.

Q. 18. State whether you saw soldiers working at the well.

A. I did.

Q. 19. Were these wells and their construction a subject of discussion among the soldiers and officers of the camp?

A. They were.

Q. 20. Whose invention was it then conceded to be by the officers and soldiers in these discussions?

A. Col. Green's.

Q. 21. In those discussions did you hear it spoken about by Byron Mudge, J. C. Carmichael, and H. F. Robinson?

A. I did.

Q. 22. Whose invention did they call it?

A. Col. Green's.

Q. 23. Did you have any conversation personally with Byron Mudge, and whose invention did he call it?

A. I did; he spoke of it as Col. Green's.

Q. 24. Was there an arrangement between Col. Green, Byron Mudge, and yourself in regard to an official position in the regiment? If so, please state the circumstances attending it.

A. As I now remember, I was to vacate my position in favor of Mudge.

Q. 25. Why and for what purpose?

A. That Mudge might be detailed to operate this well with the regiment, or where the regiment might be camped.

1872 Q. 26. Who requested this arrangement, and did you consent to it?

A. Col. Green requested it, and, I think, also Mudge; I did consent to it.

Q. 27. State whether Mudge, Col. Green, and yourself were all present when this arrangement was made.

A. We were.

Q. 28. When making this arrangement did Mudge say anything as to whose invention it was by which the two wells you have spoken of were put down; and, if he did, whose invention did he then say it was?

A. The matter of the wells was talked about, and Mudge spoke of them as the Colonel's wells.

Q. 29. Did you have more than one conversation with Mudge in regard to the matter in which he alluded to its being Col. Green's invention?

A. I had several conversations with Mudge relative to the wells and he always spoke of them as the Colonel's wells.

Q. 30. Did you about that time hear Col. Green say anything, and, if so, what, as to his intention of taking out a patent for the invention?

A. I remember the Colonel saying, in speaking of these wells, in substance, that when this thing was over, meaning the war, that he would make a big thing out of it, or words to that effect.

Q. 31. In using the term the "Colonel" who do you refer to?

A. Nelson W. Green, who was at that time acting colonel of the 76th New York Volunteer Regiment.

Q. 32. What, if anything, do you know concerning the shooting of Capt. McNett by Col. Green?

A. I saw the shooting.

Q. 33. What effect did that occurrence have as to exciting the community and the members of the regiment?

A. Excitement ran very high.

Q. 34. What, if any, investigations followed and what was the result?

A. A court of inquiry, I think it was, followed, the Colonel being acquitted, I think..

1873 Q. 35. Who was in command of the regiment when it left Cortland?

A. I am not positive, but believe Gen. Wood.

Q. 36. Did you move with the regiment?

A. I did not.

Q. 37. Did you afterwards rejoin it; and, if so, when and where?

A. I did; at Washington, I believe, the following January or first of February.

Q. 38. What efforts, if you know, were made to displace Col. Green from the command of the regiment after its arrival at Washington?

A. Very strenuous efforts were made.

Q. 39. What were these efforts and what were their effects upon Col. Green?

A. He was cited before a board of examiners as to his qualifications; a petition was circulated among the officers asking for his removal; he was placed under arrest, kept in close confinement for some time, and annoyed in other ways. The effect upon him was extreme excitement and irritability.

Q. 40. What appeared to be the state of his mind at that time?

A. He was much excited, representing himself as being persecuted.

Q. 41. Were any charges made against him that his mind was unbalanced; that his insanity unfitted him for the command of the regiment?

A. His insanity was much talked of; I believe a petition was sent to the Secretary of War, signed by the surgeons of the regiment, certifying that, in their belief, he was insane.

Q. 42. What was your opinion as to the unbalanced and excited state of his mind at that time, growing out of his McNett troubles, unfitting him for the command of the regiment?

A. I thought he was a little off at times.

Q. 43. Were you in Cortland during the time from Jan'y, 1862, to Jan., '66, to remain any time?

1874 A. I went to Homer, near Cortland, shortly after the second "Bull Run" battle, and remained some time—some few weeks, say; during that time I was at Cortland village several times.

Q. 44. Were you cognizant of the state of feeling in Cortland at that time and of the mental condition of Col. Green?

A. Green was very unpopular in Cortland and was very excitable, continuously harping on his troubles whenever I met him.

Q. 45. How did his mental condition when you saw him during this your visit to Homer compare with his condition previous to the shooting of McNett?

A. He seemed to me to be a changed man in many respects.

Direct rests.

Cross-examined by counsel for defense, subject to protest heretofore named:

X Q. 1. Are you or have you been a physician?

A. No, sir.

X Q. 2. Have you ever made any special study of mental diseases?

A. I have not.

X Q. 3. Are you certain that you would at all times be able to distinguish between what may be called ungovernable passion and incipient insanity?

A. I am not certain.

X Q. 4. Did you see the petition which you have spoken of in your answer to Q. No. 41?

A. I think I saw it; am not positive.

X Q. 5. If you did not see it, then you only know of it from others; is not that so?

A. It is.

X Q. 6. How often did you see Colonel Green at Cortland between January 1st, 1862, and January 1st, 1866?

A. I should judge, three, four, or five times; possibly more.

1875 X Q. 7. You say you were present at the shooting of McNett; did that shooting occur in camp?

A. It did.

X Q. 8. At that time had Colonel Green been commissioned as colonel of the regiment?

A. I never saw his commission; it was understood that he was commissioned at that time.

X Q. 9. Was McNett under arrest at the time?

A. He was.

X Q. 10. For what, if you know?

A. I do not know of my own knowledge.

X Q. 11. Was McNett ordered back to his quarters by Col. Green?

A. He was.

X Q. 12. Did he refuse to go?

A. He did.

X Q. 13. Did he draw any weapon?

A. Not that I saw.

X Q. 14. How often did Green command him to return to his quarters before he shot?

A. Three times, I believe.

X Q. 15. Did Green call upon any one to enforce the order?

A. Not that I heard.

X Q. 16. Would there have been any difficulty in forcing McNett back to his quarters without shooting him?

A. I think he would have resisted, from the appearance and manner of the man.

X Q. 17. When and where did either J. C. Carmichael or Heman F. Robinson speak of these wells as Green's invention or Green's wells? Give me dates, places, and attending circumstances of each time.

A. I have conversed with both of the gentlemen before and after the time of the putting down of the first well at Green's residence and to the time of the regiment's leaving for Washington, but the only specific place I can recall was in the adjutant's office; his name was Heman F. Robinson.

X Q. 18. Did you see the well put down upon Green's premises?

1876 A. I did not.

X Q. 19. Was you there on Green's premises at all the day that it was put down?

A. I do not know.

X Q. 20. Have you any personal knowledge of the manner of constructing that well on Green's premises?

A. I believe not; I think I saw the well.

X Q. 21. When you say that "you think you saw the well," do you mean to say positively that you saw the well, or is there lingering in your mind a doubt that you saw it?

A. I do not mean to say positively; my impression is that I did see it.

X Q. 22. In the well at the camp-ground was there a large tube with a smaller inner tube passing down to the water within the larger tube or do you have no recollection as to that matter?

A. I did not see the well constructed; my recollection is that a pump sat on or was attached to a pipe standing up from the ground.

X Q. 23. Did you ever examine that pipe to ascertain whether within it there was a smaller, leaden pipe?

A. I never did.

X Q. 24. Did not the base of that pump rest directly upon the boards of the platform or floor of the cook-house?

A. It may have done so.

X Q. 25. Was it not the fact that the pipe extending from the pump into the ground was hidden from view by the boarding around, to, or beneath the pump?

A. It seems to me as though the pump sat on something so that the pipe was exposed.

X Q. 26. Is your recollection positive as to this?

A. It is not.

X Q. 27. Have you been examined as a witness in cases involving these matters before to-day?

A. I was examined in the Carman case.

X Q. 28. Have you looked over your testimony at any time since it was given; and, if so, how lately?

1877 A. I have not; I saw a book open to-day with my name written at the top of the page, but I did not read the contents.

X Q. 29. Have you had your memory refreshed by any one stating to you the purport of the Carman case?

A. I have not.

Cross-examination closed.

(S'g'd) JOSEPH L. GALT.

Subscribed and sworn to before me this 9th day of August, 1880.

[SEAL.] (S'g'd) LEONARD A. GIEGERICH,
Notary Public, N. Y. Co. (31).

Examination adjourned to 10 o'clock a. m., Tuesday, August 10th, 1880.

[SEAL.] (Signed) LEONARD A. GIEGRICH,
Notary Public, N. Y. Co. (31).

1878 Pursuant to adjournment parties met Monday, August 9, 1880.

Present: Mr. Andrews and Mr. Clayton, on the part of the complainants, and Mr. Buchanan, on the part of the defense.

J. A. TODD, a witness on the part of the defense, being duly sworn, deposes and says as follows:

Q. 1. Please give your name, age, and residence and occupation.

A. J. A. Todd; age, 42 years; residence, Titusville, Crawford county, Pa.; occupation, dentist.

Q. 2. Did you ever live in Cortland village; and, if so, how long?

A. I did; about twelve years—from 1858 or '59.

Q. 3. Were you conversant with the formation of the 76th regiment in Cortland in the year 1861?

A. I was.

Q. 4. What, if any, connection did you have with that regiment or with the preliminary steps taken for its formation?

A. I assisted in drilling men—as drill master.

Q. 5. Under whose directions was that drilling done, and who were the parties connected with it?

A. Under the direction of Col. Green, Mr. J. C. Carmichael, H. F. Robinson, Mr. Byron Mudge, F. O. Hyatt, Mr. Cole, Mr. Newcomb.

Q. 6. Where was this drilling usually done?

A. At Squire's Hall, Firemen's Hall, and Schermerhorn's Hall.

Q. 7. Did you, during the time when this drilling was going on, hear of a new method of making wells?

A. I did.

Q. 8. Will you please state when, where, and under what circumstances you heard of it?

A. The first time I recollect hearing of it was at Col. Green's
1879 house; was present at that time Col. Green, J. C. Carmichael,
H. F. Robinson, Byron Mudge, and myself; can't be positive whether other members of the squad were present or not; my opinion is some others were, including Mr. Hyatt; it was in the latter part of summer or early fall, 1861.

Q. 9. Who first spoke of this new method of making wells?

A. Col. N. W. Green.

Q. 10. Please give, if you can, any portions of the conversation that then occurred in regard to this method of making wells.

A. Col. Green mentioned the fact and necessity of those going into service and in camp of having a supply of wholesome, pure water, independent of the wells, springs, or streams of the country in which they might be encamped; that reports in the papers stated that the streams and springs of water had been rendered unfit for use by poison or other means; that he had a method in his own mind by

which he could supply the camp with wholesome water, independent of the springs or wells which they might find, with a trifling expense for tools and apparatus, which they could take with them as part of their camp equipage; he then illustrated, as well as he could there, his method, by use of a lead pencil and paper, which was to drive or force a rod or tube into the ground until they should reach water; to which rod or tube he would attach a pump for the purpose of raising the water, and in this way he was confident a reliable supply of pure, wholesome water could always be obtained. Those present differed with him, thinking it would first be necessary to drill or bore like the artesian wells; he insisted it would only be necessary to drive the rod or tube down to the water; that the removing of the earth would be unnecessary, as the earth would pack around the rod or tube and assist in helping to raise the water; the others present opposed the idea, especially Mudge, Carmichael, and Robinson, who were detailed by Col. Green to try the experiment, which was
1880 made by Col. Green's direction on his premises back of his
house in Cortland village, N. Y.; this was in the latter part of summer or early fall, 1861.

Q. 11. Did Mr. Mudge himself especially oppose the method proposed by Col. Green?

A. I believe he did.

Q. 12. Can you give any of Mr. Mudge's conversation at that time in relation to the matter?

A. I can give my recollection of the substance; that was that it would be necessary to drill or bore; that if you forced it in or drove down to the water there would not be a vacuum formed sufficient to supply any water; Carmichael and Robinson agreed with Mudge, none of them believing as Col. Green did in his statement at the house; I could not give in detail all the conversation going home and at the house.

Q. 13. You have said that the parties you have named objected to Col. Green's plan of inserting a tube directly into the earth; that a sufficient vacuum could not be obtained to supply the well and pump with water; how did Col. Green meet these objections?

A. I can't give them all in detail; one was that the packing of the earth around the rod or tube would help to increase the pressure and act something upon the principle of the syphon, and enable the water to seek this center for its natural outlet, current, or circulation.

Q. 14. You say that Mudge, Carmichael, and Robinson were detailed by Col. Green to try the experiment, which was made by Col. Green's direction on his premises back of his house in Cortland village; did those gentlemen make that experiment?

A. Yes, sir.

Q. 15. How long after this conversation at Green's house, if you know, was this experiment made?

A. I think it was the next morning.

Q. 16. Did you know of a well made by Mr. Mudge and others in the cook-house of the regiment upon the fair ground where the regiment was encamped?

A. I did.

Q. 17. How long, if you know, was it, after the well was made at Green's house, when the well was made in the cook-house on the fair ground?

1881 A. But a few days, I believe.

Q. 18. Were you connected with the regiment, in any capacity at the time the well upon the fair ground was made?

A. I was not connected with the regiment except as drill master.

Q. 19. Did or did not the method advocated by Col. Green involve the use of two tubes, the one inside the other, with a space between them down to and into the water, through which the air had access to the surface of the water between the tubes, or was it for the use of one tube only, driven tightly into the earth, with a pump attached to its upper end?

A. One tube only; that was the tube illustrated with his pencil.

Q. 20. What, if anything, did Col. Green say in regard to the depth from which water could be raised by attaching a pump to this tube, tightly inserted into the earth?

A. My recollection is that the distance or depth necessary to go below the supposed depth from which water could be raised could be overcome by additional valves to the pipes; those present thought you could not raise it over 30 or 32 feet; below that depth it would be a failure; Green thought he could raise it any height required.

1882 Q. 21. What, if anything, was said during the meeting at Green's house in regard to tools that would be necessary to use in making the proposed experimental well?

A. Sledges were mentioned, beetles, and pile drivers.

Q. 22. Whose invention was it generally understood and spoken of as being, this well as made at Green's house and the well that was made at the fair ground?

A. Called Green's, so far as I know.

Q. 23. Did you become aware during the latter part of 1865 that James Suggett and Byron Mudge were making wells in accordance with this invention of Col. Green's, and did you call Col. Green's attention to the fact?

A. I did; on or about that time.

Q. 24. What reply did Col. Green make, if any, when you gave him that information?

A. He seemed considerably excited; said they were stealing his invention; that he should fight it.

Q. 25. Did you ever hear Col. Green make any declaration that he intended to or that he had dedicated and abandoned his invention to the public?

A. I did not; he held that he never had and never should.

Direct examination rests.

Cross-examination by Mr. BUCHANAN, subject to protests already made:

X Q. 1. Were you examined as a witness in what is known as the Carman case?

A. I was examined in a case I presume to be the one referred to.

X Q. 2. Were you also examined as a witness in the interference case between Mudge and Green?

A. I am unable to say which case; either this or one first referred to.

X Q. 3. Do you remember whether you have been examined as a witness in more than one case in connection with Green's patent?

A. I have.

1883 X Q. 4. How many, when, and where?

A. Twice, I believe, in Cortland; I can't give times and dates; I think once in '72 or '73 and once prior; can't give date.

X Q. 5. How recently have you examined or looked over either written or printed copies of your testimony given in either of those two cases?

A. The last and only time was yesterday.

X Q. 6. Where?

A. In my room at the Astor House, New York city.

X Q. 7. Who furnished you with that copy?

A. Mr. Wm. D. Andrews.

X Q. 8. Was it the William D. Andrews who has been here to-day conducting your examination-in-chief?

A. It was.

X Q. 9. Was it a printed or written copy?

A. Printed.

X Q. 10. During your examination here to-day has he been using and looking at a large printed book?

A. I think he has.

X Q. 11. Was not that the book in which is printed your testimony which you examined yesterday?

A. It was not.

X Q. 12. Was it not a duplicate?

A. I am unable to say; have not seen the book referred to here.

X Q. 13. What do you mean by saying you have not seen the book referred to; do you mean that you have not examined the contents of the book used here to-day?

A. That is what I mean.

X Q. 14. You say, in response to Q. No. 23, that you became aware on or about that time, referring to the date, 1865, given in the question, of Suggett's use of this process. Did you not become aware before 1865 that numerous wells had been put down by Suggett by driving for different persons in and about the village of Cortland?

A. No, sir; I was not.

1884 X Q. 15. Do you know D. C. McGraw, former clerk of Cortland county; Garrison & Collins, merchants; L. Dexter, restaurant keeper; Hannum & Shirley, restaurant keepers, residing or formerly residing in Cortland?

A. I know them.

X Q. 16. Did you not know, prior to 1865, that Suggett had driven wells for these parties?

A. I can't say that I did from recollection.

X Q. 17. Can you say that you did not, before 1865, know that Suggett had driven wells for these parties or some of them?

A. I cannot be positive.

X Q. 18. Were you absent from the village of Cortland for any period of time, exceeding a few days at once, during the years 1862, 1863, and 1864?

A. I was not, to my recollection.

X Q. 19. Were you in the army?

A. I was not.

X Q. 20. Do you know J. A. Schermerhorn, counsellor-at-law, residing in Cortland in 1864?

A. I do.

X Q. 21. Did you not know, prior to 1865, that James Suggett had driven three wells, or at least one or more, for him?

A. I can say that I was told that Suggett & Mudge had been making or had made a well for this Schermerhorn; where and at what time I am unable to say; I never saw it.

X Q. 22. Prior to 1865 had you not heard of or seen in Cortland village and vicinity a number of wells constructed or that had been constructed by the process of driving?

A. Have seen wells that were made in that manner; cannot give the date.

X Q. 23. Do you mean the date of seeing them or the date of construction?

A. I mean both.

X Q. 24. My question refers to the date of your knowledge of such wells, and, with this explanation, I repeat the question No. 22.

A. I am unable to say at what time.

X Q. 25. Can you say that prior to 1865 you did not hear
1885 of or see a number of wells in Cortland village and vicinity
constructed or said to have been constructed by the process
of driving?

A. I can't say positively.

X Q. 26. Where did this conversation with Col. Green occur, of which you have spoken, in which he illustrated his meaning by the use of a pencil?

A. At Col. Green's residence in Cortland, N. Y.

X Q. 27. Give me the date as nearly as you can.

A. Think it was in the summer or fall of 1861.

X Q. 28. If Col. Green has testified that it was about the 20th of October, 1861, and I were to call your attention to that fact, would your recollection of the time be sufficiently definite to state positively it was not about the 20th of October, 1861?

A. It would not.

X Q. 29. Did you see the experiment that was conducted near Col. Green's house, of which you have spoken, actually performed?

A. I did not.

X Q. 30. Had you any personal knowledge that any such experiment was performed; I mean aside from what others told you?

A. I had not.

X Q. 31. Did you see the well at the cook-house, of which you have spoken, made?

A. I did not.

X Q. 32. Did you see it after it was completed?

A. I did.

X Q. 33. Did you examine the tubing of that well?

A. Not carefully, sir.

X Q. 34. Do you know whether or not that well was made with one tube, to which the pump was attached, or with an outside tube of iron or tin containing a smaller leaden tube, to which the pump was attached, and with an annular space between the two tubes?

A. I believe there was but one.

X Q. 35. Are you certain of that?

A. From recollection, I am quite sure there was but one; could not swear positively.

X Q. 36. Did you ever examine to see whether, within the tube which entered the ground, there was not an inside and smaller tube?

1886 A. I did not.

X Q. 37. Was any portion of that well below the base of the pump visible without tearing up the floor or platform?

A. I cannot, from recollection, state.

X Q. 38. Do you know that Suggett's patent, and under which he was operating at the time you informed Green of his (Suggett) making driven wells, was, on interference between him (Suggett), Mudge, and Green, held by the Patent Office to be good?

A. I do not know anything about it.

X Q. 39. Did Green, previous to his departure with his regiment from Cortland, make any secret of this conception of his, or did he speak of it as openly as of any other matter in connection with the regiment?

A. I think there was no secret.

X Q. 40. Do you come from Titusville, Pennsylvania, on purpose to attend this examination in New York city?

A. I did not.

X Q. 41. Were you aware before you left home that you were to be examined here?

A. I was not.

X Q. 42. How did you ascertain that you would be needed here to-day?

A. By telegraph and letter sent by Wm. D. Andrews, which intercepted me at Philadelphia; I was on my way to this city on other business.

X Q. 43. Are you a personal friend of Col. N. W. Green?

A. I am.

X Q. 44. Have you ever received or been promised to receive in any of these cases, including the present one, any compensation for any of your services, aside from your legal witness fees and traveling expenses?

A. I never have.

Cross-examination rests.

1887 Redirect examination:

R. D. Q. 1. What particularly called your attention to the fact that Suggett and Mudge were making wells in 1865 upon Green's method?

A. A little pamphlet and advertisements in the paper.

R. D. Q. 2. What in that pamphlet and those advertisements called your attention particularly to that fact?

A. The claim of these parties to this discovery of making wells and this method, which I had always supposed or understood to have originated and belonged to Green, as he was the first, to my knowledge, having conceived or mentioned this method of making wells.

R. D. Q. 3. You were asked by cross-question 28 whether, if Col. Green had testified that the conversation at his house was about the 20th of October, 1861, that fact would call to your attention and recollection the time sufficiently definite to state positively it was not about the 20th of October. Now, do you or not mean to say that it was not or might not have been as late as the 20th of October, 1861?

A. I did not.

R. D. Q. 4. Regarding the well at the cook-house, was it or not generally understood and conceded, so far as you know or are informed, to have been made in accordance with the method described by Col. Green?

A. It was so made, as I understood it.

R. D. Q. 5. From the time that these wells were made down to 1865 did you see any person make a driven well?

A. Don't recollect of seeing one made anywhere.

Redirect rests.

1888–1893 Recross-examination:

R. X Q. 1. Have you ever seen a driven well made?

A. I have.

R. X Q. 2. Where and when?

A. In Cortland; I can't give the year.

Recross rests.

(Signed) J. A. TODD.

Taken and sworn to before me this 9th day of August, 1880.

[SEAL.] (S'g'd) LEONARD A. GIEGERICH,
Notary Public (31), *N. Y. Co.*

1894 **August 11, 1880, at 10 o'clock a. m.**

Parties met pursuant to adjournment.

And then John Fargo, being produced as a witness for the complainants and duly sworn, testifies as follows:

Q. 1. State your name, age, residence, and occupation.

A. John M. Fargo; 55; Warsaw, Wyoming county, N. Y.; farmer.

Q. 2. State whether or not you formerly resided at Independence, Buchanan county, Iowa.

A. I did.

Q. 3. State during what years you resided at Independence, Buchanan county, Iowa.

A. 1857 to 1867.

Q. 4. State whether or not you are acquainted with what is known and called Stoughton and McClure's second addition to Independence.

A. Yes; I am.

Q. 5. State whether or not you are acquainted with what is commonly known and called the "driven well."

A. Considerable, I think; some minute matters I do not know about; I was interested in them at one time and bought some territory.

Q. 6. Will you look at this drawing and see if it correctly represents what is known and called Stoughton and McClure's second addition to Independence?

(Drawing marked "Complainants' Exhibit A, Warsaw, N. Y.," here shown witness.)

1895 A. Yes.

Q. 7. State when and where you first saw a driven well.

A. At Independence, Iowa, in 1866.

Q. 8. State where in Independence the driven well was which you say you saw in 1866.

A. It was on the west side of the river, the south side of the business street, the street that the bridge was on that crossed the river, that was the same street that I lived on; I lived on the north side of the street; the well was driven about half way between my house and the bridge, and on Stoughton and McClure's second addition of Independence, and by looking at the drawing given me I should say it was on block three; it might have been block two.

An adjournment was here taken until 1.30 o'clock p. m., Aug. 11.

At 1.30 o'clock p. m., August 11, 1880, parties met pursuant to adjournment.

Q. 9. State whether or not, while you were at Independence, you knew of a shop known and called "Kays' blacksmith shop."

A. I don't.

Q. 10. State what building or buildings was on the opposite side of the street from the place where you say this driven well was of which you have testified as seeing it at Independence in 1866.

A. Almost exactly opposite the place where that well was driven was an old building occupied by a blacksmith; he had done work for me; the building was on the northeast corner of Main and Center streets, and next door was a house occupied by Mr. Trexler.

1896 Q. 11. State about how far this blacksmith's shop was from the driven well.

A. I should estimate it some five or six rods; maybe across the road; might have been a couple of rods from the road on the other side.

Q. 12. State, if you know, the names of the parties who put down this driven well.

A. I know the parties who were there—owned an interest, I suppose; there was Charles Brown, Mattison Keeney, Melvin Chamberlain, Augustus Harrington, and a man employed by them, interested, I believe—John West.

Q. 13. Where were these parties from that you have named?

A. New York State, I think—Wyoming county.

Q. 14. State whether or not you pumped water from this well and saw others pump water from it.

A. I did.

Q. 15. About how long was this well there in operation?

A. I don't believe I can tell you, but I should think—but it would be guess-work now—a couple of months; it stood there until they went to some other counties and back again.

Q. 16. State whether or not there were a good many persons there to see this well.

A. I should think there were.

Q. 17. State whether or not this well was talked about by the people there as being a novelty and a new invention.

A. It was considered by those I talked to as a new invention.

Q. 18. State whether or not this well was talked about by the people there as being a novelty and a new invention.

1897 A. It was talked of as something new; I don't know as they called it a novelty in so many words.

Q. 19. State whether or not one of the parties there with this well was called "Charley."

A. Yes, sir.

Q. 20. State, Mr. Fargo, the names of the persons you now recollect of seeing at that well.

A. Dr. George Warne, S. S. Allen, Lawyer Wordsworth, Mr. Saurbier; I have seen lots of them there.

Q. 21. State whether or not you saw Charles T. Kimball, Thomas Sherwood, S. P. McEwen, and Mr. Trexler or any of them there.

A. I saw this Kimball there, and Trexler and McEwen.

Q. 22. How near to and in what direction from this well did Mr. Trexler live?

A. He lived north—opposite side of the street—and about ten or fifteen rods from the well.

Q. 23. State whether or not you know where the Presbyterian church stands; if so, describe its location.

A. Located in Independence on the street that this well was; I should presume on the same block, on the east corner of it, nearer the river.

Q. 24. About how far is the church from where the well was?

A. Somewhere from eight to ten rods; that would be my estimation now.

Q. 25. State, if you know, at what place in Independence Charles Brown, Augustus Harrington, Mattison Keeney, Melvin Chamberlain, and John West stopped at in Independence at the time this well was driven.

A. I think it was then called the "Burr House," but was formerly known as "White's Hotel."

Q. 26. State, if you know, who kept this hotel at this time.

1898 A. Mr. Burr.

Q. 27. Describe, Mr. Fargo, as near as you can, the appearance of the parties who put down this well, giving their height and complexion as near as possible.

A. Augustus Harrington, a light-complexioned man; hair and whiskers both sandy and quite red; I should estimate about 5 feet 10 or 11 inches high. Charles Brown, about 5 feet 9 or 10 inches, and a little stocky built, and brown hair, but whiskers somewhat sandy, I believe; light complexion. Mattison Keeney, rather stouter built than Brown; not quite as tall; dark hair and whiskers, when he wore them; inclining to dark skin. Melvin Chamberlain was a slighter man than any of the rest of the party; light complexioned. John West was something of the style of a man like Keeney; not as heavy.

Q. 28. State, Mr. Fargo, during the time you lived at Independence about how often you passed the place where this driven well was.

A. It would average about six times a day.

Q. 29. State about how far from where this well was you lived.

A. Somewhere from 25 to 40 rods; not less than 25 rods.

Q. 30. When did you cease to reside at Independence?

A. About the year 1867.

Q. 31. State whether or not you have at any time been back to Independence since you left there in 1867; if so, when.

A. I spent part of the winter of 1877 and 1878 there.

Q. 32. State whether or not, during the time you resided at Independence, there was any driven well on block 2 or 3 of Stoughton and McClure's second addition to Independence in use and operation prior to this one of which you have testified as having been put down in 1866.

1899 A. I know there wasn't; it was a place I saw every day.

Q. 33. State whether or not a driven well could have existed and been in use and operation on block 2 or 3 of Stoughton & McClure's second addition to Independence in the year of 1860 or '61 without your having known of it.

A. It could not.

Q. 34. Mr. Fargo, will you take a pen and red ink and mark a round dot upon the drawing which has been shown you indicating the place where this driven well stood of which you have testified, as near as you can?

A. I will.

Q. 35. State whether or not the hotel at Independence, Iowa, of which you have testified as being known as "White's Hotel" and the "Burr House" was subsequently known as "Merchants' Hotel."

A. Yes, sir.

Direct closed.

1900 Cross-questions by C. T. BARTLETT:

X Q. 1. Was there anything in the drawing shown you on your direct examination that would enable you to recognize it as a map of the Stoughton & McClure second addition to Independence?

A. I should think there was.

X Q. 2. What was there about it that would enable you to recognize it as a map of that addition?

A. To begin with, it so states it to be; and, another thing, the house I lived in is down there and pointed out—the Empire Hotel; that is the great thing, the location of the additions on the west bank of the river.

X Q. 3. Is there anything on this drawing except the written words that would convey to you any idea that it was a map of that addition?

A. Yes, sir.

X Q. 4. What is it.

A. One reason I have told you—the pointing out of the house I lived in.

1901 The witness further answered:

I would have some idea; I must say that, without any names of streets or designations of any places or buildings or name of the river, I could not at first, and maybe could not at all, have positively told, but might by looking at it long enough without any guide.

X Q. 5. If there is anything in this drawing except the written words that would give you an idea that such drawing was intended as a map of such addition to Independence, tell us, if you please, what it is.

A. The river is one thing, and the locations of the streets and their names, and the buildings on the streets.

X Q. 6. Is there anything on the drawing to indicate that the portion marked "river" was intended for a river or a highway except the words "river?"

A. I should have called it a river.

X Q. 7. (Question repeated.)

A. There was nothing to call it anything else.

X Q. 8. (Question repeated.)

A. Yes; what I should consider so.

X Q. 9. Tell us what it is.

A. Because it appears to me as any other river would on any other map, and in this case the river runs in the direction it is marked, out across the streets that are laid out, and the different angles of the river and my knowledge of maps would convince me that it was intended for a stream of some kind and not a highway without seeing any more to it.

X Q. 10. If these lines on this drawing marked "streets" were intended for fences on a farm, and the place marked "river" was marked "public highway," would you recognize it as a map of the second addition of Stoughton & McClure to Independence?

A. I don't think I should.

1902 X Q. 11. Do you know when this second addition of Stoughton & McClure to Independence was made?

A. Don't think I can tell now.

X Q. 12. Was it made before or after you first went to Independence?

A. Before.

X Q. 13. Why was it named Stoughton & McClure's second addition?

A. McClure owned, or formerly owned, the property, or in company with somebody else owned it; Stoughton I have no knowledge of.

X Q. 14. When did you first go to Independence?

A. February, 1857.

X Q. 15. Do you know the distance of this addition along the river?

A. I don't exactly.

X Q. 16. Give, as near as you can, the distance along the river line of that addition.

A. It would be my opinion that it might be forty rods; somewhat short of that; somewhere in that neighborhood; I am only giving my judgment.

X Q. 17. Was this second addition on both sides of the river?

A. I think not.

X Q. 18. What was the distance of the north and south line of this addition?

A. About the same on the north line; if there was any difference the north line was the longest; there were three blocks and part of another on the north line running east and west; the north line, I should judge, was longer than the river line; the length of the north line running east and west was, I should judge, about forty rods.

X Q. 19. What was the length of the south line, running east and west?

A. According to my recollection, the south line was, say, thirty rods in a staight line.

X Q. 20. How many streets were there between the river and the west bounds of this addition?

1903 A. I think not but three, save the street at the west end of it; there was a street at the west end of it, and I think three others, and they weren't used; were all common, except the one at the west end; no building on Main street at that time on the addition.

X Q. 21. How many streets in this addition running east and west?

A. I can't tell; in my opinion, but two; might have been three; two besides Main street.

X Q. 22. How many buildings were there on this addition west of the river when you first went to Independence?

A. I will speak of the buildings as I remember them. In the first place, when you cross the bridge there was a building occupied as a store by a couple of brothers named Fonda; it occupied all the space between the river and the first street on corner of Main and Oak or Spring street, but am not positive; might have been Centre; on the opposite corner was the storehouse on Main street; think a man named Bullen was selling goods there; there was no other building on Main street until you got to the west corner, and that was a little house; yes; there was another house near the corner, stone or brick, or something of that kind; when you went down the first street from Main street after you crossed the river were some residences—two blocks—one on one side and the other on the other side; then, on the river side, lawyer L. A. Hart lived, and on the first street south of Main, running parallel to it and about the centre of the additions running east and west, was the residence of F. S. S. Allen, a lawyer; can't tell the name of the street; and down the first street in this part of the addition, the southeast part of it, there might have been a dozen more buildings.

X Q. 23. What is the name of the first street on this addition running north and south after crossing the river?

A. Can't tell whether it is Spring, Oak, or Centre.

X Q. 24. What is the name of the street on the northern bounds of this addition?

A. Always called it Main street.

1904 X Q. 25. What is the next street south of Main street and parallel to it?

A. Can't tell you; my attention was not called enough to it to recollect the name of it.

X Q. 26. Was there any street north of Main street on this addition and parallel to it?

A. I think not.

X Q. 27. On what street or streets is the Presbyterian church of which you speak located?

A. On what they call Main street; it is on a corner; think that street has been laid out since that addition was first made, but won't be positive.

X Q. 28. Was this street described by you on the east side of the Presbyterian church running north and south there when you lived in Independence?

A. It was not travelled or used as a street, if it was there; I don't know as I had any knowledge of it.

X Q. 29. Do you remember of any street there when you lived there?

A. I do not.

An adjournment was here taken until August 12th, at 9 o'clock a. m.

AUGUST 12TH—9 o'clock a. m.

Parties met pursuant to adjournment, and the cross-examination of JOHN FARGO continued:

X Q. 30. What streets do you remember running north and south on this second addition of Stoughton & McClure to Independence while you were living there?

A. I recollect Centre street, Spring street, and I believe Oak street; don't know as I recollect what the others were.

X Q. 31. Were these streets that you have mentioned, all of them, built upon at the time you left there in 1867?

1905 A. I could not say positively; they were not directly off from Main street; couldn't say positively whether every one of them was or not.

X Q. 32. Were these streets that you have mentioned traveled sufficiently to indicate that they were public streets when you left there in 1867?

A. Yes, sir.

X Q. 33. What was the appearance of the country when this second addition of Stoughton & McClure was put on?

A. Level; but a very little depression where the well was.

X Q. 34. Was there any timber on this addition?

A. Yes, sir.

X Q. 35. Describe the kinds of timber and where it was when you left in 1867.

A. According to my recollection, it was mostly black and scrub oak; not in any dense masses, but mostly scattered.

X Q. 36. To what part of the second addition of Stoughton & McClure to Independence does this description apply?

A. Mostly to the southeast portion; same all over it, except, maybe, directly along on Main street.

X Q. 37. Was there any timber—scrub oak—along on Main street?

A. I think there were some, even on first block, and some black oak.

X Q. 38. Describe this scrub oak—its appearance, height, and size.

1906 A. It looks some like our old orchards here as much as anything; it averages, probably, to the extreme tops, twenty feet, and branches out like an apple tree; the branches are six, eight, or ten feet from the bottom, and branch out pretty well; on this piece of ground they were mostly little ones; big ones had probably been cut out.

X Q. 39. What marks or measurements were there, if any, to indicate the location of streets there in 1867?

A. If there were any I don't recollect them, with the exception of two streets, and they were fenced on one side at least; one of them was on the extreme west of the addition, and the other the first one from the river.

X Q. 40. Can you give the names of these streets?

A. The west one I couldn't at all, and the east one I couldn't swear positively what it was.

X Q. 41. Did you know in 1866 or 1867 the street north of block five?

A. It would be my impression that it would be Independence street, but I wouldn't swear to it positively.

X Q. 42. Can you tell what street bounded block two on the north?

A. Yes; I think I can; bounded on the north by Main street.

X Q. 43. Were blocks two and five bounded on the north by the same street or different streets?

A. I won't swear positive about it.

X Q. 44. Do you know how many blocks there were on this second addition of Stoughton & McClure?

A. I don't recollect now.

X Q. 45. Do you know the location of the different blocks so that you could describe them?

A. Couldn't all of them; no, sir.

X Q. 46. Were the different blocks designated by names or numbers, or both?

A. Don't know, but think they were numbered.

X Q. 47. On which side did they commence numbering—north, east, south, or west?

1907 A. On the northeast corner, I think.

X Q. 48. What number was the block where they commenced numbering called?

A. I should say number one.

X Q. 49. In what direction did they continue numbering?

A. To the west, I think.

X Q. 50. Did the blocks number 1, 2, 3, consecutively, or put even numbers on one side of the street and odd on the other?

A. I understand the first part of the question well, but the second I don't; but I think they numbered 1, 3, 2, 5; that is my impression. I think so, but I won't be positive.

X Q. 51. Was there any block north of block three; and, if so, what was it?

A. There was lots of blocks on the opposite side of the street. I thought it was not in the same addition, but I may be wrong about that. There was no street running north from Main street until you got as far west as block three, certain, and the other side of it.

X Q. 52. Isn't it a fact, according to your knowledge of that locality, that block three was in the north tier of blocks of the Stoughton & McClure second addition?

A. That is what I think now, but it might not have been.

X Q. 53. Was the country around this second addition of Stoughton & McClure to Independence settled very much at the time you left there in 1867?

A. Considerable at that time, but not much on Main street—or not any, for that matter.

X Q. 54. About what proportion of the country around there was settled?

A. Not very much; most of it taken up and improved, but not many buildings.

1908 X Q. 55. What was there to distinguish this addition from the rest of the country—to indicate that it was a part of the village?

A. There might not have been much of anything. I don't know that I was ever told or shown any boundaries. I took for granted what I knew and saw. There was a few houses scattered around.

X Q. 56. What business did you engage in when you went to Independence in 1857?

A. I didn't have any steady business. I was in a hotel some awhile after I went there; keeping a hotel, and also had charge of lands belonging to my father, and dealt in town lots some.

X Q. 57. How long was it after you went there before you engaged in business?

A. Not over four months, I should think.

X Q. 58. What was the first business you engaged in?

A. Became interested in this hotel.

An adjournment was here taken until one o'clock p. m.

At one o'clock p. m. parties met, pursuant to adjournment, and the cross-examination of John Fargo continued:

X. Q. 59. What hotel was it in which you became interested soon after you went to Independence in 1857?

A. The Empire House.

X Q. 60. What other parties, if any, were interested with you in that hotel?

A. S. S. McClure and George Coverts.

X Q. 61. Were you then running the hotel?

A. Yes, sir; Mr. McClure wasn't in the house, but he was interested. They owned the property, and it had never been furnished, so I did a good share towards furnishing it.

X Q. 62. How long did you continue associated with the gentlemen you have named in running that hotel?

1909 A. It wasn't a great while. It is something I ought to recollect, but I don't; something less than a year, at any rate.

X Q. 63. Give, as near as you can, the year and month you commenced running that hotel.

A. It was the year 1857 in about the middle of the summer; can't tell the month I ceased running it.

X Q. 64. Had this Empire House ever been kept as a hotel before you went into it?

A. Yes; a short time. There was a man in it when I went there.

X Q. 65. After your connection with the hotel ceased who run it?

A. I think McClure rented it to a man by the name of Lard. He run it a year or so and it was then run by a man named Kipp.

X Q. 66. In which part of the town was this hotel located?

A. At that time pretty near the west part.

X Q. 67. On what street was it?

A. Main street, on a corner; can't tell name of other street.

X Q. 68. On which side of the hotel was Main street?

A. South.

X Q. 69. What was the number of the block on which the hotel stood?

A. At that time I don't know as there was any number to it. It was on a lot of two acres.

X Q. 70. Was it on the Stoughton & McClure second addition to Independence?

A. No, sir.

X Q. 71. Which side of the river was it?

A. West.

X Q. 72. How far distant from the river?

A. Forty or fifty or sixty rods.

X Q. 73. What other buildings, if any, were on this hotel lot?

1910 A. Three barns belonging to the hotel.

X Q. 74. Was that hotel kept as a hotel in 1867, when you left Independence?

A. No, sir.

X Q. 75. How long was it kept as a hotel after you went there in 1857?

A. In my opinion, six or seven years.

X Q. 76. Do you know who was running it in 1860 and 1861?

A. In my opinion, Kipp, W. B.

X Q. 77. Are you positive that Kipp was running that hotel in both 1860 and 1861?

A. No; I am not certain of both years, but my memory would lead me to say he was there in 1861.

X Q. 78. How was this property used after it ceased to be used as a hotel up to the time you left?

A. It was rented to families.

X Q. 79. Who owned the property from 1863 up to the time you left?

A. My father, Allen Fargo.

X Q. 80. What buildings were there between this hotel and the river on Main street in 1860 or 1861, commencing at the hotel and running east to the river?

A. First a very poor old dwelling-house; next poorer, if could be; next was quite a good dwelling-house owned by Mr. Saurbier; next was a building built for a store; next a dwelling belonging to the mill property, and Samuel Sherwood's saw and grist mill stood on the bank of the river.

X Q. 81. Were these buildings all on the same side of the street as the hotel?

A. Yes, sir.

X Q. 82. Were there any other buildings than these you have mentioned between the hotel and the river on the same side of the street?

A. I believe not at that time.

X Q. 83. Can you give the number of the block on which any of these buildings stood?

A. I can't.

1911 X Q. 84. Have you any recollection of ever having known the number of the block on which any of these buildings stood?

A. I don't believe I could.

X Q. 85. What buildings, if any, were on the opposite side of the street in 1860 or 1861, between the river and the place where this hotel stood?

A. There were but two; one a store, occupied by the Fonda Bros., and west of the store was another stone building.

X Q. 86. How far west of the first stone building was the second?

A. The middle of the street; perhaps a little more; might not have been right on the street.

X Q. 87. What was the name of the street running between these two buildings?

A. Don't remember.

X Q. 88. Between 1861 and 1867, the time you went there, what other buildings were erected on the north side of Main street, between the hotel and the river?

A. None.

X Q. 89. Did the buildings you have described as being on the north side of Main street remain there up to the time you left?

A. They did.

X Q. 90. On the south side of Main street, between the hotel and the river, what buildings were erected between 1860 and the time you left?

A. I don't recollect of any, but think Fonda Brothers rebuilt their store with brick.

X Q. 91. Something has been said about a church; do you know when that church was erected?

A. I don't recollect the year; no, sir.

X Q. 92. Was it before or since you left there in 1867?

A. Since.

X Q. 93. Have you ever seen it?

A. Yes, sir.

X Q. 94. When did you first see it?

A. In the winter of 1877, I think, or in the fall of that year.

X Q. 95. Can you tell us of your own knowledge the number of the block upon which that church stands?

1912 A. No, not positively; but from what I know of the lots I could judge pretty close.

X Q. 96. Have you been informed by any one, since you expected to be called as a witness in this case, of the number of the block on which this church stood?

A. No, sir.

X Q. 97. Have you been shown what purported to be a drawing of that locality, representing the lot on which the church stood, and giving the number of the block?

A. I have been shown a drawing, and probably shows what block it is on.

X Q. 98. Can you tell, independent of that drawing and from your own knowledge, the number of the block on which the church stands?

A. Not exactly, but I can pretty near it.

X Q. 99. Can you tell the number of the block on which Fonda's store stood?

A. I think I can.

X Q. 100. What was its number?

A. I think it was on block one.

X Q. 101. What was the number of the block on which this saw-mill stood?

A. Can't tell you; but my impression would be that the property on which that mill stood wasn't laid out as a block.

X Q. 102. What is the church—brick, wood, or stone?

A. Brick.

X Q. 103. When was this Trexler house built of which you spoke?

A. Can't tell you.

X Q. 104. Who occupied it in 1860 or 1861, if anybody?

A. Mr. Trexler, I think.

X Q. 105. On what block was this house?

A. I can't place a block on that side of the street.

X Q. 106. Who occupied this Trexler lot in 1866 or 1867?

A. I don't recollect of but one other party—a man by the name of Joslin.

X Q. 107. Did he live in the Trexler house?

A. I don't recollect whether he lived in the Trexler house or whether there was another house there.

1913 X Q. 108. What was Trexler's business?

A. He was a confectioner by trade, but I don't recollect what he did work at there.

X Q. 109. Was Trexler living there when you left, in 1867?

A. I think not.

X Q. 110. What was the number of the block south of Trexler's, if any?

A. I can't tell.

X Q. 111. Was it dry or marsh land on the south of the street where Trexler lived?

A. Wettish, lowish land.

X Q. 112. Was there ever a regiment of soldiers or a part of a regiment encamped at Independence when you were there?

A. There was at one time a company of soldiers, but I hardly think they went into regular camp there, but a part of them may have for a few days; that must have been some time in the year 1860 or 1861.

X Q. 113. Didn't they have a camp there?

A. I should think not; might have had a camp when some of them slept out, but I should think not.

X Q. 114. Wasn't there a parade ground there where they drilled?

A. There was commons on my lot where they drilled, and may have drilled some on adjoining lots.

X Q. 115. Wasn't there a parade ground near Trexler?

A. They did parade some on the opposite side from Trexler's, near where this well was put down; guess they did parade there more than anywhere else.

X Q. 116. About what number of soldiers do you think were there?

A. I guess that at no time was there a hundred there—somewhere about that.

X Q. 117. Was there a fair ground near there?

A. No regular fair ground; they used my hotel property; I had a half-mile track there, and they used my building for a show-room.

1914 X Q. 118. In what years were these fairs held?

A. I can't tell you.

X Q. 119. What business were you engaged in in 1860 and 1861?

A. No particular business.

X Q. 120. In what portion of the town did you live in 1860 and 1861?

A. West; and lived there most of the time while there, except while I boarded in a hotel on the other side of the river.

X Q. 121. During what year or years did you board on the other side of the river?

A. I should think about 1859, at the "Monitor House," owned and kept by Mr. Purdy.

X Q. 122. Were you engaged in the same business while boarding with Mr. Purdy?

A. Yes.

X Q. 123. You speak of a race-track which you had; were you keeping race horses at this time?

A. Yes, sir.

X Q. 124. During any portion of the time you were there were you engaged in farming?

A. One year I did something at it—only one season.

X Q. 125. You speak of a time when there was a driven well put down there; were you present and did you see the operation of putting it down?

A. I think I was.

X Q. 126. Who performed the labor of putting it down?

A. John West did the most of it?

X Q. 127. What time of year was it?

A. It is my impression that it was the latter part of June, 1866.

X Q. 128. Do you know what month West, Harrington, and those parties came into town?

A. In the month of June, I think.

X Q. 129. What was their business there?

A. To sell territory for this driven well, I understood.

X Q. 130. What was this well called?

A. I think it was called the "drive well;" it claimed to be patented.

X Q. 131. Do you know whose patent?

1915 A. I know what they claimed. Chamberlain claimed to have a patent for forming a reservoir at the bottom of the tube.

X Q. 132. Was there any other patent on this well, that you know of?

A. They claimed to have the whole patented; I so understood it.

X Q. 133. How long did these parties remain there?

A. I should think a couple of months.

X Q. 134. How soon after they came there was this well put down?

A. Within a very few days.

X Q. 135. For what purpose was this well put down there?

A. To show the operation of the well.

X Q. 136. Did it work successfully?

A. I think it did.

X Q. 137. Who owned the lot where it was put down?

A. I don't know.

X Q. 138. Do you know to what depth the pipe was driven?

A. I know pretty near. Something like fifteen feet.

X Q. 139. On which street was this well put down?

A. The street on the north side was Main; think Centre street was west of it, but I am not positive.

X Q. 140. Is that your best recollection?

A. Yes; I am inclined to think it was Centre street.

X Q. 141. Do you know the number of the block on which the well was put down?

A. I am not certain, but can tell that it was either block 2 or block 3.

X Q. 142. Do you remember any parties being present besides those who represented it?

A. I don't believe I could swear to any one at that particular time.

X Q. 143. Who do you recollect of seeing there at any time?

A. Dr. George Warne, S. S. Allen, Mr. Trexler, Mr. Saurbier, Sanford Clark, George Robinson, Mr. Cobb, who used to keep a hotel there; might have been a good many others. These I speak of, except Kimball, lived on the same side of the river.

1916 X Q. 144. Were you ever in this Trexler house?

A. I don't believe I was.

X Q. 145. How long was this well there?

A. I should think a couple of months.

X Q. 146. Did these parties leave it there?

A. It seems to me as if it did stay there awhile after they left, but I won't be positive.

X Q. 147. What kind of a pump was used on it? Was it a pitcher-spout pump or a force pump?

A. Such a pump as is usually used in a cistern.

X Q. 148. Do you know how many wells were on the west side of the river before you left there?

A. I don't.

X Q. 149. Do you know how the Trexler place was supplied with water?

A. Don't recollect now.

X Q. 150. Can you tell how any of the places on the west side of the river except your own hotel were supplied with water?

A. Some of them had wells.

X Q. 151. There might have been a great many wells around there that you might have known nothing about, might there not?

A. Yes, sir; a good many.

X Q. 152. This was the first "drive well" that you knew anything about?

A. Yes, sir.

X Q. 153. You don't know anything about how the different families around there supplied themselves with water, do you?

A. I did know, but I have forgotten.

X Q. 154. Do you mean to be understood as saying that you knew how all the families around there supplied themselves with water?

A. No, sir.

X Q. 155. Did you know how one in a dozen supplied themselves with water? I mean around Independence.

A. I think I did; more than that.

X Q. 156. What was the population of Independence in 1861, as near as you can fix it?

A. I don't recollect it; maybe 1,000 or 1,200; I don't
1917 know; I guess I have got it too big; it is guess-work; I don't
know; I will say 800 or 1,000.

X Q. 157. Do you mean to be understood as swearing of your own knowledge that there was no driven well in Independence previous to 1866, or do you mean to be understood that this was the first one that you ever knew anything about?

A. I don't know of any, and I don't think there ever was.

X Q. 158. Do you positively swear that there was no driven well in Independence previous to 1866? Answer yes or no.

A. I can't say no, for I don't believe there was.

X Q. 159. Will you answer that question yes or no?

A. I will swear that there was no such thing as a "driven well" in Independence previous to the one put down by these parties.

X Q. 160. Question repeated.

A. Yes, sir; I do.

X Q. 161. Do you swear positively that you know positively that no driven well had ever been put down in Independence prior to 1866? Answer yes or no.

A. I will swear that the surroundings and circumstances led me to know, as well as I know anything, that there was never any such thing there before. The papers were full of the matter, and people flocked about, saying, in the first place, that you "couldn't get water, and, in the next, that "it wouldn't last any time," and that

"it couldn't be possible," and that the oldest residents of the
1918 place thought it was something they had "never seen or heard of," and that "it wouldn't be of any use after it was down."

X Q. 162. Question repeated.

A. I shall have to say yes.

X Q. 163. Do you know how wells had been put down there previous to 1866?

A. Yes.

X Q. 164. How many wells do you know of being put down there previous to 1866?

A. I can think of two now; I will take that back; there is only one that I can think of at this moment—may have been lots of them.

X Q. 165. Where was the one that you know of?

A. On the Empire property.

X Q. 166. Who put that down?

A. I did.

X Q. 167. When?

A. Don't recollect the time exactly.

X Q. 168. Can you give the year?

A. Don't think I can; know it was before this "drive well."

X Q. 169. Do you know of any other wells besides this one on the Empire property?

A. Don't think of any now.

X Q. 170. What was the nature of the ground where this drive well was put down?

A. A sandy loam.

X Q. 171. Was it wet ground?

A. No, sir.

X Q. 172. Was the ground free from stones?

A. Where I dug it was; on the other side of the river they couldn't use these wells on account of the stones.

X Q. 173. What is it that makes you positive there was no drive well there previous to 1866?

A. My reason is that the people of Independence, to my knowledge, almost universally claimed that they had never seen or heard of such a thing, and that not in any single instance did I
1919 hear anything that would indicate that they had, and I had quite an opportunity to know, and although I couldn't give the language of the paper speaking of it, but it was, in substance, that it was something new, and not only that they hadn't anything of the kind there, but that they hadn't heard of it before, and it was uncontradicted.

X Q. 174. Were there any other reasons than the ones you have given that makes you positive that there was no well there?

A. No other, except that I had never heard of it myself.

X Q. 175. You speak of a paper as containing an article describing this well as something new. Where was that paper published and what was its name?

A. Published at Independence and called, I think, the Independence Guardian.

X Q. 176. What old citizen can you name as having spoken of this well as being something new and having never heard of it before?

A. Mr. Saurbier, for one; S. S. McClure, who took up the first ground the city stands on. Think I heard Dr. Warne and both of the Fonda Brothers. These parties were all there when I went there; Tom Sherwood, who was keeping the White House.

X Q. 177. When did you hear these parties speak of it?

A. During the time of the excitement, while putting down this well there.

X Q. 178. Was there more than one paper published there at the time?

A. I could not swear that there was.

X Q. 179. At what hotel did these parties that were there in 1866 putting down this well stop?

A. Burr House.

X Q. 180. Who was keeping it at that time?

A. Burr.

X Q. 181. What was his first name?

A. I can't tell now.

X Q. 182. Do you know why this place was selected to put down a drive well?

A. Because the parties thought it was a good place to put down a well.

1920 X Q. 183. Were there any buildings close to it on that side of the street?

A. The nearest buildings were on the opposite side; none near it on the same side.

X Q. 184. Whose buildings were they on the opposite side of the street?

A. An old building that had been occupied as a house, but at that time was a blacksmith shop; Mr. Trexler, the next further east, and there may have been a house between; I'm not certain.

X Q. 185. In putting down this well, what kind of pipe was used?

A. It was a gas pipe.

X Q. 186. Was it obtained there, or did they bring it?

A. I think they brought it.

X Q. 187. Do you know how they came; by their own conveyance or public conveyance?

A. I think they came by public conveyance.

X Q. 188. Did these parties claim to have a patent on this invention, and was it their business to sell the right or use of it there?

A. That was what I understood from them.

X Q. 189. Do you know of their selling any right to this well there?

A. Yes, sir.

X Q. 189. How many sales did they make to your knowledge?

A. They sold territory away from there and some there.

X Q. 190. Did you become interested in this patent as owner of any portion of the right or any of the territory covered by it?

A. I suppose I did.

X Q. 191. What interest did you have?

A. Quite a large territory in Illinois; the boundaries of it I don't recollect; some territory in Iowa; the boundaries I don't recollect.

X Q. 192. Any other territory?

A. Not any other places.

X Q. 193. Do you know to whom the letters patent were issued which they claimed to hold?

1921 A. I don't recollect.

X Q. 194. Have you got your papers now?

A. I don't recollect.

X Q. 195. Have you ever sold your territory?

A. I never sold any territory or sold any wells. I undertook to put down one and failed.

X Q. 196. Have you been informed that witnesses have been examined and testimony been taken in Independence, Iowa, in reference to the existence of a "drive well" there prior to 1866?

A. Yes, sir.

X Q. 197. Have you been informed what persons have been examined as witnesses?

A. No, sir.

X Q. 198. Have you been informed about the nature of the testimony taken?

A. I heard that evidence had been taken.

X Q. 199. Have you read yourself or heard read or had stated to you what purported to be the evidence or the substance of the evidence taken there or any part of it?

A. No, sir.

X Q. 200. Have you seen it—what purported to be it?

A. No; I have not.

X Q. 201. Have you been informed where in Independence this driven well was claimed to have been located prior to the one you saw put down in 1866?

A. By a drawing shown me it indicates one put down in 1865 or '66 and one in 1861.

X Q. 202. At the time Keeney was there who was there with him?

A. Augustus Harrington, Charley Brown, Melvin Chamberlain, John West.

X Q. 203. Anybody else?

A. Not that I recollect of.

X Q. 204. You had known some of them in this county?

A. I was acquainted with Harrington and some with Chamberlain.

X Q. 205. Did they engage any men there to assist them in any way?

A. I don't think they did.

1922 X Q. 206. You say West did the driving?

A. I think he did most of it, if not all of it.

X Q. 207. About how long were they at work putting down this well before they got water?

A. Not over an hour.

X Q. 208. Did they bring the pumps with them that they used there or did they get them there?

A. I don't know. They had the same kind of pumps there; same at our hardware stores.

X Q. 209. The counsel in your direct examination asked you something about a man called "Charley." What is there about him? Tell us who he is and where he belonged.

A. "Charley" was Charles Brown; he went by the name of "Charley."

X Q. 210. Have you been subpœnaed before this notary, Mr. Fargo?

A. Yes, sir.

X Q. 211. Was the subpœna served on you or just notice given you?

A. I was given notice that I was wanted to be examined.

X Q. 212. Have you been paid any fees?

A. No, sir.

X Q. 213. Do you know either of the parties engaged in this suit?

A. I think I used to know Mr. Green.

X Q. 214. Where did Green live when you knew him?

A. In Warsaw.

X Q. 215. How long ago was it?

A. Twenty-five years ago.

X Q. 216. Do you know any of his family living about here?

A. I knew Mrs. Windsor, his sister.

X Q. 217. Did you ever know of Mat. Otis putting down a well in this village by making an excavation in the earth down to the water strata, putting in a tub or other vessel in the bottom of this excavation, boring a hole in the bottom of the tub, inserting a pipe into
such hole, brought down from the surface, then filling up
1923 the excavation with earth, attaching a pump to the upper
end of the pipe, and in this manner constructing a well?

A. No, sir.

Cross-examination closed.

Redirect:

R. D. Q. 1. State whether or not, just before you were sworn here, the defendants' counsel, C. T. Bartlett, informed you that some forty witnesses had or would swear that a driven well was put down in Independence in 1860 or 1861.

A. I understood him to say that thirty or forty had sworn to it.

R. D. Q. 2. Was what C. T. Bartlett told you in reference to witnesses having testified to the existence of a driven well in Independence in 1861 the first information you had on that subject?

A. Yes, sir.

Redirect closed.

R. X Q. 1. Had you been informed before that that any witnesses had been examined in Independence in reference to a driven well in 1861?

A. Yes, sir.

R. X Q. 2. When were you so informed and who informed you?

A. I couldn't tell the time; S. B. Bartlett.

R. X Q. 3. Did he tell you what he wanted of you?

A. I think he gave me to understand what the business was; I don't know as I understood what particular point he wanted to get at; he asked me some questions about the well and wanted to know what time I was there.

R. X Q. 4. Did you ever see this drawing purporting to be a map of Stoughton & McClure's second addition to Independence before you were sworn yesterday morning?

1924 A. I don't know whether it was before or after I was sworn; it was after I come into the office.

R. X Q. 5. Don't you remember whether you had seen it before you were sworn or not?

A. It is my impression I did.

R. X Q. 6. Don't you know you did?

A. If I had, it was so short a time I had the two confounded.

R. X Q. 7. Don't you know you had seen this before you were sworn?

A. My impression is that I did.

R. X Q. 8. Hasn't the locality of these driven wells on this drawing been shown you before you were sworn yesterday morning?

A. It is my opinion that it was before I was sworn.

R. X Q. 9. Who showed it to you?

A. S. B. Bartlett.

R. X Q. 10. Did he show this drawing and ask you questions or talk with you about it before you were sworn?

A. I know that I was asked no questions.

R. X Q. 11. Now, you tell me whether that drawing was shown you by the counsel for the complainants and you talked with him about it before you were sworn.

A. It is my impression that we did.

R. X Q. 12. Were you shown by him the location of the Empire House or was it pointed out to you?

A. No, sir.

R. X Q. 13. Did you read the writing on it before you were sworn?

A. It is my impression that if I looked at it I read the writing—I mean I took it and examined it and read the writing.

R. X Q. 14. In what direction from this well was the residence of S. S. Allen?

A. Southwest.

R. X Q. 15. Do you know on what block it was?

A. No, sir.

1925 (Map out here.)

R. X Q. 16. Mr. Fargo, if ten or twenty respectable, intelligent persons should testify as to the existence of a driven well in Independence previous to 1866, within their own personal knowledge, wouldn't you think you were mistaken about one being there?

A. No, sir.

R. X Q. 17. Suppose these ten or twenty persons had equal, if not greater, facilities and means of knowledge than yourself, and should testify positively to the existence of a driven well prior to 1866 in a locality familiarly known to them, would you doubt at all the correctness of your own knowledge of the matter?

A. I shouldn't.

R. X Q. 18. Haven't you been informed of a driven well being in use prior to 1866?

A. Not before that time myself.

R. X Q. 19. Isn't it a fact that your father has driven wells which he claims to have been put down prior to 1866?

A. I don't know.

(S'g'd) J. M. FARGO.

Sworn and subscribed before me this 14th day of August, 1880.

(S'g'd) E. M. BARTLETT,
Notary Public.

Examination adjourned to August 15th, 9 o'clock a. m.

1926 *Testimony of John West.*

AUGUST 13TH—9 o'clock a. m.

Parties met pursuant to adjournment, and then JOHN WEST, being produced as a witness on the part of the complainants and duly sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. John West; forty-nine years old November 12th next; Warsaw, N. Y.; I drive wells and an omnibus.

Q. 2. How long have you resided at the village of Warsaw?

A. Twenty seven or eight years.

Q. 3. State whether or not you were ever at Independence, Buchanan county, Iowa.

A. I was.

Q. 4. State when you were at Independence.

A. In June and July, 1866.

Q. 5. State who went to Independence with you, if any one.

A. Melvin Chamberlain, Mattison Keeney, Charley Brown, and Augustus Harrington, who either went with me or came a day or two afterwards.

Q. 6. State how long you were at Independence.

A. Seven weeks.

Q. 7. Where did you, Augustus Harrington, Melvin Chamberlain, Charley Brown, and Mattison Keeney reside when you went to Independence?

A. Mat. Keeney, Charles Brown, Harrington, and myself went from here; at this time Chamberlain had moved to Minnesota and had lived there about two weeks when he went to Independence.

Q. 8. State whether or not you are acquainted with what is known as and commonly called the "driven well."

A. I am.

Q. 9. State whether or not Mattison Keeney was at Independence while you were there.

A. Yes, sir; I think he came there while I was there.

Q. 10. State in what business you and Charles Brown, Melvin Chamberlain, Augustus Harrington, and Mattison Keeney were engaged while at Independence, if any.

1927 A. Driving wells and selling territory.

Q. 11. State whether you were interested in the well or whether you were in the employ of the other parties you have named.

A. I was in their employ.

Q. 12. State whether or not, while you were at Independence, you put down any wells.

A. I did.

Q. 13. State, as near as you can, where you put the well down.

A. I put one down at Independence village, on what they call Main street, on the opposite side of the river from Burr's Hotel; the well was about 30 rods, I should think, from the river, towards the Fargo Hotel, on the east side of the road, on a common, on a corner where every one could see it in passing; in the highway I should think it was.

Q. 14. Describe how you drove this well; describe generally what you did.

A. The pipe had holes in the bottom of it and an iron point; I used a big sledge hammer, and after putting a block on top drove it down into the ground; would drive down one piece 6 or 8 feet, then screw another on, and keep doing so until we got to water; then I screwed an iron pump on it with couplings made a purpose, and pumped the water out—all anybody wanted and more, too.

Q. 15. State whether the perforations in the pipe were round holes or slots.

A. I think they were round holes.

Q. 16. State how long the pipe was that you used in this well.

A. It was 22 or 23 feet; couldn't tell exactly.

Q. 17. State how far above the ground the top came, as near as you can.

A. I should think a foot and a half.

Q. 18. State where you got the pump and the pipe that you used in making this well.

A. At Hart, Ball & Harts, Buffalo, N. Y.

Q. 19. State whether or not there was any building or buildings on the opposite side from this well.

A. I think there were.

1928 Q. 20. State what the building was used for.

A. I think it was a blacksmith shop, and that there was also a shop where they repaired wagons.

Q. 21. State, as near as you can, how far it was from this well to this blacksmith shop.

A. That is a pretty hard thing to tell, it was so long ago, but I should think it was 6 or 7 rods; might be 8, but I wouldn't say over 6; 6 or 8 rods.

Q. 22. Who did the driving when this well was put down?

A. I did it myself.

Q. 23. State whether or not there were a good many people present at the time this well was put down.

A. There was.

Q. 24. State whether or not there was a good deal of talk by the people then about this well at the time it was driven.

A. There was; quite an excitement.

Q. 25. State whether or not this well was talked about by the people then as being a novelty and a new invention.

A. It was.

Q. 26. State whether persons came from a distance to see this well; state generally what you know upon that subject.

A. There was; they came a good ways; lots of them came there and talked about it; one man came from 25 miles from there and hired us to put in one for him.

Q. 27. State how soon after you went to Independence it was before you drove this well.

A. As near as I can tell, I drove that one at Independence the next day after I got there.

Q. 28. State how long that this well which you drove at Independence was in use there.

A. Six weeks anyway; might have been a day or two more.

1929 Q. 29. Did you take it up when you left Independence?

A. I think we took it up when we went down to Vinton.

Q. 30. State whether or not, during the time that this well was in use at Independence, a great many people went to see it at different times and pumped water from it; state generally what you know upon that subject.

A. Yes, sir; a great many came there and pumped water; wagon loads of women, men, and children from out in the country near there.

Q. 31. State whether or not yourself, Charles Brown, Augustus Harrington, Melvin Chamberlain, and Mattison Keeney stopped at the same hotel, while you were at Independence.

A. All but Mattison Keeney I can say positively stopped at Burr's Hotel.

Q. 32. State whether or not one of your party was known and called Charley.

A. Yes, sir.

Q. 33. State the names of all the persons you now recollect of being present at the time you put this well down at Independence.

A. There were four of the Burrs—old gentleman and the boys—John Fargo and Frank, Jim Cole, another Cole boy, Mr. Trask, who kept a livery stable, and several others that I can't remember the names; our party was there—Harrington and Charley Brown and Chamberlain.

Q. 34. State whether or not, while there and while putting down this well, you heard any persons there state or claim that they had ever seen or known of such a well at Independence Point prior to that.

A. I never did.

An adjournment was here taken to 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Parties met pursuant to adjournment, and the examination of JOHN WEST was continued.

Direct closed.

1930 Cross-examination:

X Q. 1. When was it that you first became acquainted with this "driven well?"

A. July, 1865; the last of July I think it was.

X Q. 2. Where was it?

A. In the village of Warsaw, corner of Main and Genesee streets.

X Q. 3. How and what did you then learn about the driven well?

A. I saw some men drive a well over there.

X Q. 4. Do you know who them men were?

A. I knew one of them at the time, but have seen him but once since then.

X Q. 5. Give the names.

A. Emmett Legg.

X Q. 6. Were they people you have known before?

A. No, sir.

X Q. 7. You say you saw them put down a well here. Was it what is called the "driven well," of which Nelson W. Green claims the patent?

A. I suppose it is; it is the first one I ever saw.

X Q. 8. Describe how they put down this well.

A. They drove an iron rod in the first place down a ways, pulled the rod out, and inserted the pipe in the same place; put the pipe down in the hole as far as they could, then laid a block on top of it and drove that.

X Q. 9. Describe this pipe.

A. Common gas pipe, said to be at that time such as they used in New York for the Croton water works—inch-and-a-quarter pipe, inside diameter. The lower end of the pipe had slots in it and an iron point, I think.

X Q. 10. After the pipe was down what was done?

A. An iron pump put on it—a pump manufactured in Seneca Falls, I think.

1931 X Q. 11. How was the pump attached to the pipe?

A. Put on with a coupling screw thread cut on it and screwed on.

X Q. 12. How many persons were there engaged in putting down this well?

A. Three.

X Q. 13. Did you learn where they came from?

A. I did at the time. I think it was Penn Yan, N. Y., but I won't be certain.

X Q. 14. What was their business here?

A. Selling the patent right, I suppose; that is what they called it.

X Q. 15. Did they put down more than this one well here?

A. Yes, sir.

X Q. 16. How many?

A. Eighteen, I believe.

X Q. 17. How long were they around here?

A. I couldn't tell exactly, but a couple of weeks, I should think.

X Q. 18. Did you converse with them at different times while they were here?

A. Yes; I did with one of them.

X Q. 19. Did you learn how long they had been engaged in putting down these wells?

A. I couldn't tell you.

X Q. 20. Do you know whether or not this was the first well ever put down by them?

A. I do not, sir.

1932 X Q. 21. Did you obtain any information from any source as to how long these wells had been in use prior to the one you saw here?

A. No, sir; that is the first I ever knew about them.

X Q 22. Did you obtain any information from these parties as to how long they had known of them?

A. I did not.

X Q. 23. Was this well put down here by these parties different in any respect from the wells you afterwards put down?

A. Some that I put down were the same and some were not—that is, the pipe was not slotted; the first was slotted, and for the slots I substituted holes, which were drilled.

X Q. 24. Were there any different methods or appliances afterwards used?

A. All the difference was that I made up my mind that I could drive the pipe easier than in punching the hole. That is the only difference.

X Q. 25. Did you at any time become interested as owner or part owner of this driven well or the pretended patent covering the same?

A. I bought of this party the right for three towns.

X Q. 26. At what time was this purchase made?

A. I can't give the date. It was August 1st, 1865, as near as I can get at it.

X Q. 27. Did you afterwards put down these wells?

1933 A. I did.

X Q. 28. When did you first commence putting them down?

A. Shortly after I bought them out here—somewhere near the 1st of August, 1865.

X Q. 29. About how extensively did you put down these wells?

A. I couldn't tell; put in several. I wouldn't say I had put in over fifteen or twenty; perhaps twenty-five.

X Q. 30. Do you know how many there are in this town?

A. I should think one hundred.

X Q. 31. Did you ever know Nelson W. Green?

A. I have seen him—said to be him.

X Q. 32. How many times have you seen him?

A. Twice, I think.

X Q. 33. Where?

A. I think I saw him once at Mrs. Windsor's, and on the street; saw him once on the cars at the Erie depot.

X Q. 34. Did you have any talk with him?

A. I did.

X Q. 35. About putting in these wells?

A. I did.

1934 X Q. 36. Did you in that conversation inform him that you had been engaged in putting them down?

A. Yes, sir.

X Q. 37. Did he know, before you had this talk with him, that you had been engaged in putting them down, if you know?

A. I don't know anything about whether he knew of it or not.

X Q. 38. Did he then claim to be the inventor of this well?

A. He did.

X Q. 39. Did he claim when and where he invented it?

A. Not that I know of.

X Q. 40. Do you know when Harrington, Keeney, Brown, and Chamberlain got hold of this well?

A. Some time in 1865.

X Q. 41. Of whom did they get the right, if you know?

A. They claimed to have an improvement on the patent.

X Q. 42. Do you know of their putting down any wells before they went to Independence, Iowa?

A. No, sir.

X Q. 43. Had you ever been to Independence before you went there with them?

A. No, sir; never.

1935 X Q. 44. Have you been to Independence since that time?

A. No, sir.

X Q. 45. After reaching Independence and while you remained there this driven well was talked up a good deal by your party, was it not?

A. It was, some.

X Q. 46. Did you have any acquaintance in Independence at that time?

A. Yes; two or three that I knew; John Fargo and Frank, James Cole and his brother.

X Q. 47. Do you know anything about what the population of Independence was at that time?

A. I do not.

X Q. 48. From what you saw of the town, what would you judge its population to be?

A. I couldn't tell. I should think 1,000 inhabitants; that would be my best judgment.

X Q. 49. Was the country about Independence at the time you were there, in 1856, very much settled?

A. The land was all in use close by; not very thickly settled.

X Q. 50. You spoke of the place where you put down this well at Independence as being on the opposite side of the river from the hotel where you stopped; which side of the river was the largest part of the village on?

A. The side where we put the well had the most dwellings; the other side had the most of the business.

X Q. 51. Was the portion of the town between the river and the place where you put this well down very considerably occupied by either buildings or residences?

A. A few rods from the river the buildings were quite thick, and after you got a little ways off they stood back from the road.

X Q. 52. Were there any buildings near where the well was put down on the same side of the street?

A. No.

X Q. 53. Any buildings on the opposite side?

A. Nearly opposite from where the well was was what I called a blacksmith shop, where they repaired wagons; might have been a cooper shop there on the same side as you went towards the river, and a house.

1936 X Q. 54. Do you remember whether or not a saw-mill was near there?

A. I do not; there was a grist-mill on that side.

X Q. 55. Wasn't there a lot of lumber and saw-logs there?

A. There was a lot of logs where we drove the well.

X Q. 56. Wasn't there lumber piied up round there?

A. I couldn't say.

X Q. 57. I think you stated that you put down this "drive well" within the bounds of the highway and near the beaten track, did you not?

A. I did.

X Q. 58. How close to the beaten track?

A. About a rod and a half, I guess.

X Q. 59. Isn't it a fact that the ground beyond, where you put down the well, was covered by saw-logs and bushes, and you put it in the highway to get away from these bushes?

A. No, sir; there wasn't any bushes within forty rods of there, and more too, I guess.

X Q. 60. How about the ground being covered with saw-logs?

A. Some logs had been drawn there back in the lot.

Y Q. 61. What was the appearance of the ground around there? Describe it.

A. Very level, smooth and clean.

X Q. 62. You say you called Brown "Charley;" what were the others called?

A. Ned Chamberlain, Gus Harrington, and John West.

X Q. 63. Was that the way they were generally spoken to and of?

A. Yes.

X Q. 64. About what length of time was Mat Keeney there?

A. I do not know.

X Q. 65. He wasn't there much, was he?

A. I don't think he was; think he went away the day he came, or the next. What makes me remember that is that Gus Harrington went away with him, and Charley Brown said he was damned glad he was gone; didn't any of us think much of him.

1937 X Q. 66. Did either Harrington or Keeney return while you were there?

A. No, sir.

X Q. 67. Was either Harrington or Keeney in Independence when you drove this well?

A. Keeney was not; am pretty sure Harrington was.

X Q. 68. How long after you drove this well before Keeney got there?

A. Don't know.

X Q. 69. After Keeney and Harrington went away who of you remained?

A. Charley Brown, Ned Chamberlain, and myself.

X Q. 70. Were you in Independence all the time, or did you go out in neighboring towns and operate?

A. Went off to one village.

X Q. 71. Did you operate among the farmers?

A. But one.

X Q. 72. You have known a good many persons that answered that name—answered to the name of "Charley," haven't you?

A. Yes, sir.

X Q. 73. Very common name, isn't it?

A. Yes, sir.

X Q. 74. Describe Ned Chamberlain's appearance?

A. A man about 5 feet 7 inches, black curly hair, long black chin whiskers, good sized eye, probably gray, heavy mustache, and a good talker; he was stoutly built, and would weigh 165 or 170 pounds.

X Q. 75. Describe Charley Brown's appearance?

A. Sandy complexion, sandy hair and mustache, pretty good size, heavy and chunky at that time; about same height as Chamberlain, would weigh 180; I weighed then 165 pounds; height, 5 feet 7 and ½ inches; dark hair or dark brown hair, roman nose, chin whiskers and mustache; hair and beard were black; I wore a soft hat; Chamberlain wore a black silk hat, and Charley a soft hat; Chamberlain wore a heavy gold chain and watch; we stayed at the Burr Hotel seven weeks.

X Q. 76. What was the amount of your board bill at the Burr Hotel?

A. We paid $100; Charley Brown paid it.

1938 X Q. 77. Were your names registered at the hotel?

A. I can't say, but presume they are.

X Q. 78. Who was keeping the hotel at this time?

A. Burr; he had a brother clerking in a dry goods store who was interested in the hotel with him; he had another brother boarding there who run the omnibus.

X Q. 79. Did you while there become acquainted with any parties that you now remember?

A. Got acquainted with Traso and Henry Cole, and some others that I don't recollect.

(S'g'd) **JOHN WEST.**

Subscribed and sworn to before me this 13th day of August, 1880.

(S'g'd) **E. M. BARTLETT,**
Notary Public.

An adjournment was here taken until Aug. 14, 1880, at 9 o'clock a. m.

1939 *Testimony of Frank Fargo.*

AUGUST 14—9 o'clock a. m.

Parties met pursuant to adjournment; and then FRANK FARGO being produced as a witness on the part of the complainants and duly sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. Frank Fargo; 29; Warsaw, N. Y.; sewing-machine business.

Q. 2. State whether you are a son of John M. Fargo.

A. I am.

Q. 3. State whether you formerly resided at Independence, Buchanan county, Iowa.

A. I did.

Q. 4. State during what years you resided at Independence, Iowa.

A. From the fall of 1859 until the winter of 1869 or 1870.

Q. 5. State if you are acquainted with what is commonly known and called the "drive well."

A. I am.

Q. 6. State when and where you first saw a driven well.

A. At Independence, in 1865 or 1866; I think 1866.

Q. 7. State why you know it was in 1865 or 1866.

A. I was shot April 15, 1865, and was lame when the well was driven; it was after I was shot.

Q. 8. State whether or not you saw the well driven.

A. I did; the whole of it.

Q. 9. State, if you can, the parties who put down the well at Independence.

A. All I remember is John West and Mel. Chamberlain; John West did the striking.

Q. 10. State whether or not there were any other parties connected with or interested in the well.

A. There were, but I don't know who they were; only what I have heard.

Q. 11. State, if you know, where John West and Mel. Chamberlain then lived.

1940 A. I supposed at Warsaw, N. Y.

Q. 12. State where in Independence this well was put down.

A. About twelve rods west of the new Presbyterian church.

Q. 13. State whether or not there is any building opposite or nearly opposite where this well was put down. If so, state what it was used for.

A. A blacksmith shop, nearly opposite.

Q. 14. State whether or not the well was driven on the same block on which the Presbyterian church now stands.

A. I am sure it was.

Q. 15. State whether or not there was quite a number of people there to see the well put down.

A. There were.

Q. 16. State, if you can, the names of any persons who were present when the well was driven.

A. I don't remember any but Chamberlain and West.

Q. 17. State whether or not, at the time this well was driven at Independence, it was talked of by the people there as a novelty and a new invention.

A. It was.

Q. 18. State whether or not you heard any person state or claim that they had seen or heard of a driven well before at Independence.

A. I did not.

Q. 19. State whether or not, during the time you lived at Independence, you were frequently past the place where the well was driven.

A. Passed it every day.

Q. 20. State whether or not you are acquainted with what is known as and called Stoughton and McClure's second addition to Independence.

A. I don't know which is the second; I know them both.

Q. 21. State whether or not the well was driven on one of Stoughton and McClure's additions to Independence.

A. It was.

1941 Q. 22. State whether or not there is a river running through Independence.

A. There is.

Q. 23. State whether or not both additions are on the same side of the river.

A. They are, but guess one of them reaches across the river a little way.

Q. 24. State, if you know, the number of the block on which this well was driven.

A. I do not.

Q. 25. State whether or not during the years of 1860 or 1861 there was any driven well on the block on which you say this was driven in 1865 or 1866 or on the adjoining block.

A. I did not know of any; I passed there every day.

Q. 26. State whether or not a driven well could have existed and been in use and operation in 1860 and 1861 on the block on which you say this well was driven in 1865 or 1866 or on the adjoining blocks in these years without you having known it.

A. I say it could not unless it was put in in the night and pulled up before morning.

Q. 27. State, as near as you can, the depth of the pipe that was used in driving this well.

A. About 25 feet, I should think.

Direct closed.

X Q. 1. About how many persons were present when this well was put down?

A. My best judgment would be 50.

X Q. 2. How old were you in 1860 or 1861?

A. Ten or eleven.

1942 X Q. 3. Who did you hear speak of this as being a novelty?

A. Couldn't say.

X Q. 4. Can you mention any one you heard speak of it as a novelty and a new invention aside from the parties who were putting it down?

A. No.

X Q. 5. These parties were there to sell rights for the use of these wells, were they not?

A. I believe so.

X Q. 6. When did you leave Independence?

A. December, 1869, and haven't been there since.

X Q. 7. When was this Presbyterian church erected?

A. Before I left; don't know how long before.

X Q. 8. Was this well put down within the bounds of the highway or in a neighboring territory?

A. I can't say; the well, I should think, was about 20 feet south of the Main street walk.

X Q. 9. What kind of a walk was there on the south side of Main street?

A. There was no sidewalk at that time, only a path.

X Q. 10. Was this lot where this well was used for any purpose at that time?

A. It was not.

X Q. 11. Were there any buildings upon it?

A. No, sir.

X Q. 12. Do you know how much territory the second addition of Stoughton and McClure's covered?

A. I do not.

X Q. 13. Do you know what streets run through or over that addition?

A. I do not.

X Q. 14. You spoke of two additions of Stoughton and McClure's to Independence; did they adjoin each other?

A. I do not know.

X Q. 15. Did you know how many or what kind of wells were on the west side of the river in 1860 or 1861?

A. I don't, but there were a good many.

1943 X Q. 16. Do you know how many different kinds of wells were on the west side of the river in 1860 or 1861?

A. I don't.

X Q. 17. Do you know how the people living on the west side of the river in 1860 or 1861 supplied themselves with water?

A. With wells.

X Q. 18. Do you know whether cast-iron pumps were used upon wells on that side of the river in 1861 or 1862?

A. No; I don't.

X Q. 19. About how deep was it necessary to go then in order to reach a supply of water?

A. Twenty-five or thirty feet; sometimes less.

X Q. 20. What was the nature of the soil through which they had to dig in order to reach water?

A. About four feet of black muck, and then sand or gravel.

Cross-ex. closed.

R. D. Q. 1. State whether or not this well was quite a topic of conversation.

A. It was; a good many thought it wouldn't work.

Redirect closed.

R. X Q. 1. In what were you engaged at the time this well was put down?

A. I was on crutches for two years.

R. X Q. 2. Where did you hear this well talked about?

A. On the ground where it was driven, and a good many other places.

R. X Q. 3. Can you tell who you heard speaking about it?

A. No.

Recross closed.

1944 2d R. D. Q. Where did these men stop who put down this well?

A. At the Burr House.

(S'g'd) FRANK FARGO.

Subscribed and sworn to before me this 14th day of August, 1880.

(S'g'd) E. M. BARTLETT,
Notary Public.

1945 *Testimony of Augustus Harrington.*

AUGUST 16, 1886—9 o'clock a. m.

Parties met pursuant to adjournment.

An adjournment was here taken to August 17, at 1 o'clock p. m.

At 1 o'clock p. m., August 17, 1880, parties met pursuant to adjournment.

And then Augustus Harrington, being produced as a witness on the part of the complainants and duly sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. Augustus Harrington; Warsaw, N. Y.; occupation, attorney and counsellor at law; age, 45 years.

Q. 2. State whether or not you were ever at Independence, Buchanan county, Iowa; and, if you were, state when you went there, and how long you remained.

A. I went to Independence, Iowa, May 19, 1866, for the first time; I remained there until the 21st of May; returned to Independence the 23d and remained until June 18, when I left finally. This was all in 1866.

Q. 3. State whether or not there were any other parties from Warsaw, N. Y., with you; and, if so, whom?

A. Charles Brown, John West, M. C. Chamberlain, and Mattison Keeney were all there with me some part of the time.

Q. 4. State whether or not you have seen what is known and called the "driven well."

A. Yes; I have.

Q. 5. State when and where you first saw a "driven well."

A. In this village, on the east side of Main street, on the north side of Genesee street, near the corner, near the Bingham House, in 1865.

Q. 6. State in what business yourself, Charles Brown, M. C. Chamberlain, Mattison Keeney, and John West were engaged in while in Independence.

A. Directly and indirectly they were all engaged in
1946 disposing of wells—driven wells—putting them down and
selling them; I did not put down any wells myself.

Q. 7. State whether or not a well was put down at Independence by your party; if so, by whom and at what time?

A. There was a well put down at Independence May 25, 1866, by John West; he did the work.

Q. 8. State or describe, as near as you can, the place where this well was put down.

A. As I remember it—I may be mistaken—it was on the south side of the main street, on the west side of the river, at the opposite side of the town from the hotel kept by Burr; it was on the opposite side of the street from a large building then occupied by John Fargo, which had been, as I think, a kind of a hotel; it was on the opposite side of the street from there and farther east.

Q. 9. State whether or not at the time this well was put down there were quite a number of people present.

A. I should say there were, coming and going.

Q. 10. State whether or not this well was talked about by the people there as being a novelty and a new invention.

A. At this distance of time, of course, I can't remember everything that I heard at that time, but there was a good deal of talk among the citizens in regard to the well, some of it addressed to me and some between the citizens. I heard persons ask West "how he could get water;" if he was certain he could get water, and talk to that effect; it was talked about as a novelty and a new invention.

Q. 11. State whether or not, while at Independence, you talked with a good many people in regard to this well.

A. I did.

1947 Q. 12. State whether or not, while at Independence, you heard any one state or claim that they had ever see or heard of a driven well at Independence previous to the one put down by West.

A. I did not.

Q. 13. State at what hotel yourself, Charles Brown, M. C. Chamberlain, John West, and Mattison Keeney stopped while at Independence.

A. We all stopped at a hotel on the east side of the river—on the north side of the main street of the village—on the corner near the court-house, kept by Burr & Bro., I think, called at that time the National Hotel.

Q. 14. State whether or not one of the parties that was there with you and interested in this well was known and called by the name of "Charley."

A. Mr. Brown's name was Charles, and he was generally called "Charley" by everybody then.

Q. 15. State, if you can, the length of the pipe that was used in the construction of this well at Independence.

A. It was 21 feet deep—I think 21 feet—until we struck water.

Q. 16. State where the pipe and the pump used upon it were obtained.

A. I can't state positively that I have any particular recollection of the pipe that went into that well, but think it was bought in Dubuque.

Q. 17. State whether or not, while you were at Independence, you had any pipe, pump, or tools shipped to you from any place; and, if so, from whom?

A. All we had came from Dubuque, but we bought some of Hart, Ball & Hart in Buffalo and had them shipped to Dubuque.

Q. 18. State whether, while you were at Independence, you received a box of pipe, tools, or pumps, sent to you from the city of Buffalo, N. Y., by express.

1948 A. We received a box there that had been sent by express from Buffalo, but it had been received before it got to Independence and then forwarded. The box that we received had been sent from Buffalo.

Q. 19. State about how far it is from the village of Warsaw, N. Y., to the city of Buffalo, N. Y.?

A. About 50 miles.

Q. 20. State whether or not you have any books or memoranda by which you fix the date of the putting down of this well at Independence.

A. I have a diary—memoranda—made at the time.

Q. 21. State whether or not you received from any person in Independence after your return to Warsaw a communication in which one of the parties who was with you at Independence was referred to as "Charley."

A. I received a letter written by Mr. Burr, of the National Hotel, about the last of July, 1866, which I hold in my hand.

Q. 22. Will you allow the notary to copy the letter which you say you received from Mr. Burr about the last of July, 1866?

A. I have no objection. The paper is just as I received it, with the exception of the words "Burr, July 29," at the upper corner on the back, which is in my own handwriting.

The following is a copy of the letter:

"INDEPENDENCE, *July* 29.

"Mr. Harrington.

"DEAR SIR: Yours of July 25th was received in due time. I spoke to Lawyer Jameson, and he said he would send at once. In regard to claims, I received the full amount the day Charley left here, and have delivered the deed and will ship, as directed, some time this week.

"Respects to the boys. Chamberlain left here July 27, after trading with Fargo, for the State of Indiana.

"Yours truly, A. L. BURR."

1949 (On the back of the letter is the following:)

"Yankee Robinson's show, Aug. 1, 1866;" "Frank Howe's show, July 30, 1866;" Burr, July 29."

Q. 22½. State whether or not, while you were at Independence, you sold to parties there any territory or the right to use these wells; if so, to whom.

A. There was sold at that time territory. I drew the papers of the sale. The first sale in Iowa was Buchanan county, sold to Elmer B. Heusted May 18, 1866. On the 2d day of June Delaware county, Iowa, was sold to Elmer B. Heusted. On the 4th day of June, at Independence, Du Page county, Ill., was sold to G. W. Burr. There were other sales made.

Q. 23. State whether or not, while you were at Independence, you made an application for a patent upon an improvement to this well.

A. I did.

Q. 24. State whether or not you made any paper or papers in relation to it which were witnessed by any person at Independence; if so, whom.

A. I made a specification of the claim to accompany the application for a patent, during my stay at Independence, to forward to Washington, which was executed, my impression is, about June 14, 1866, and witnessed by T. J. Burr and A. L. Burr, the same one who wrote the letter in evidence, and who was at the hotel—the National Hotel.

Q. 25. State whether or not you know of any newspapers published at Independance while you were there; if so, give the names.

A. There were published two that I know of. The Guardian, of Independence, was one and the Buchanan County Bulletin was another.

Q. 26. State whether or not the specifications made by you at Independence were forwarded by you to the Patent Office, at Washington.

A. They were. The specifications were connected with patent number 61536, dated January 29, 1867. That is the date of the issue of the patent.

1950 Q. 27. State whether or not you now have in your possession any papers published at Independence, Iowa, during the time you were there in 1866, in which there are articles referring to this well; if so, state the names of the papers and the date of the issue.

A. The Guardian, of Independence, dated May 30, 1866, contained an article referring to the well in question entitled "A great curiosity." I have a copy of the paper in my hand, which I obtained at the office at the time it was published. The Buchanan County Bulletin, dated June 5, 1866, contained an article headed "Subterranean reservoir wells." There were other articles. The Guardian, of Independence, dated June 6, 1866, had an article with reference to the well in question entitled "Well, what of that well?" The Guardian, of Independence, dated June 13, 1866, contained an article concerning the well in question entitled "The water still comes."

Q. 28. State whether or not you know who wrote the articles you have referred to.

A. They were all, as I understood, written by the editors of the respective papers. They were not written by me or any one of our party, to my knowledge.

Q. 29. Will you now allow the notary to take the papers you have named and copy the articles you have referred to?

A. Certainly.

The following is a copy of an article from the Guardian, of Independence, dated May 30, 1866:

"A great curiosity.

"It is worth one's while to go over the bridge and look at the pump that is pulling up water in any quantity right out of the ground. We last week saw some strangers pounding an iron 1951 tube into the earth, while boys and men, with mouths agape, were wondering what was to pay; whether they were 'borin' for ile' or sounding for gold was a mystery; but at last we 'caught the cat out of the bag.' They were putting down one of 'Chamberlain's new patent subterranean reservoir wells;' in other words, they were going to get an exhaustless cistern of water by simply driving a rod down anywhere in the ground. We passed by incredulous, but wisely held our peace; such seeming impossibilities do come to pass in our day; and sure enough next day we found a pump going on top of the tube, and such a stream of such clear, sweet water as poured forth hour by hour it was a pleasure to see and to drink. This is a genuine invention and no mistake. A reservoir is carefully dug out at the bottom of the tube (in this case 22 feet down), and thus a supply is continuously kept up without danger of caving in, since any loosening earth still leaves the cavity the same. Anywhere that a well can be dug this better well can in a few hours be shoved down, and when you move (everybody out West keeps moving) you can pull up your well and shoulder it off to the new 'diggins.' Why, for aught we can see, poor pilgrims can now carry a a well on their camel's back, and suck out cool, fresh water anywhere from the burning sands of Sahara's desert. Do, reader, go and look at one of the greatest inventions of our age.

"P. S.—We learn that Mr. E. B. Heusted has obtained the right from Messrs. Harrington & Brown, proprietors, and will operate the improvement for this county, making his headquarters here at Independence."

The following is a copy of an article in the Bulletin, dated Independence, Iowa, June 5, 1866:

"Subterranean reservoir wells.

"One of those remarkable inventions is exhibited in full operation on the west side of the river. An iron tube is driven perpendicularly into the earth until water is reached, when a reservoir is excavated just below the tubing as a source of supply; a pump is then attached to the top of the tube, and the well is ready for use.
1952 The first question naturally arising is, 'Can an abundant
supply of pure water be permanently secured in this manner?' This sample well runs into quicksand, which is the bane of ordinary wells, yet the water obtained is unlimited in quantity, cold, and perfectly pure, not a particle of sand having been raised. This well can be sunk both cheaper and more quickly than ordinary wells, whenever there is no rock to stop the tubing. Proprietors, Messrs. Harrington and Brown. Mr. E. B. Heusted, at the Burr House, has the right for this county. He will furnish all further desired information, and dispose of township rights on reasonable terms."

The following is a copy of an article published in the Guardian, of Independence, of the date of June 6, 1866:

"Well, what of that well?

"It keeps pumping still, and the reservoir seems to be inexhaustible. Time only confirms the first impression that this new patent tube well is a first-rate affair. It may be a mystery to many how such a continual supply of clear, cold water can be sucked out of the earth with so little ado; 'but the proof of the pudding is in the eating,' and if any one doubts just let him go to this pump on the west side and see for himself. A large reward is offered to any one who will pump it dry."

The following is a copy of an article published in the Guardian of Independence, of the date of June 13, 1866:

"The water still comes.

"See the advertisement of that wonderful well which we insert today. Everybody speaks well of the well, and it is sure to go. So well are we assured of this that we have already bargained for one on our premises to show our faith by our work. Go thou and do likewise.

"P. S.—We are just informed that the State of Minnesota has
1953 been sold out to Chandler & Turner, of Independence, for $2,000. The thing is going like hot cakes."

An adjournment was here taken to August 18, at 1 o'clock p. m.

AT 1 O'CLOCK P. M.

Parties met pursuant to adjournment, and the examination of AUGUSTUS HARRINGTON was continued:

Q. 30. You stated that you had a diary which aided you in fixing some of the dates to which you have testified. Will you point out to the notary the references on your diary that refer to the time of the putting down of this well at Independence, and to any other date to which you have testified, and allow him to copy them?

A. I will.

(A diary of 1866 here shown, from which the following entries were taken:)

"Saturday, May 19, 1866.—Julien House, Dubuque; left for Independence 10 a. m.; at National Hotel, Burr & Bro.

"Sunday, 20th.—Independence; tea with H. Cole.

"Monday 21st.—Dubuque, Julien House.

"Wednesday, 23d.—Arrived at Independence at 2½ o'clock p. m.

"Thursday, 24th.—At Independence.

"Friday, May 25, 1866.—Got a well at Independence, 21 feet.

"Monday, May 28th, 1866.—Sold Buchanan county for $300 to Elmer B. Heusted.

"Saturday, 2.—Sold Delaware county, Iowa, to E. W. Heusted, $200.

"Monday, 4.—Sold Du Page county, Ill., to G. W. Burr, $150, Downer's Grove, Du Page county, Ill.

1954 "Tuesday, 5.—Sent model by mail.

"Wednesday, June 6th, 1866.—Sold reamer, rod, &c., to Heusted for $14.00.

"Saturday, June 9th, 1865.—Sold Minnesota to J. W. Chandler and J. B. Turner, dated 11th.

"Wednesday, 13th.—West went to Winthrop.

"Thursday, 14th.—Sent papers to Alexander & Mason with $20, First National of Independence, Iowa, on Williams & Whittlesey, New York, No. 558, $20; Keeney came to Independence.

"Friday, June 15th, 1866.—Sold Butler county, Iowa, to Harley Day and Josephus Dimmick, $150; put down Stephenson's well, 25 feet.

"Monday, June 18th, 1866.—Left Independence at 2.30 p. m.; at Julien House.

"Wednesday, 30th (May).—Brown left for Waterloo 2.30."

Q. 31. State whether or not the different entries to which you have referred in your diary were made by you at the time they bear date.

A. They were made at those precise dates; generally on the very day of the occurrence; always within a day or two.

Q. 32. State whether or not any other well was put down by West or your party at Independence than the one you have described as having been put down on the west side of the river; if so, for whom?

A. Yes; for a man by the name of Stephenson, at Independence, on the 15th day of June, 1866; it was done by the party—by West—but think they never got any pay for it; think it was put down by Heusted, because he didn't know how to put them down, and so this was put down for his benefit.

Direct ex. closed.

X Q. 1. You speak of Brown's leaving Independence at a certain date; was that the Charles or Charley Brown, you have referred to?

A. It was.

1955 X Q. 2. Did he return to Independence again while you were there?

A. At this moment I am unable to say positively whether he did or not, but think he did.

X Q. 3. Have you any definite recollection as to whether he returned or not after May 30th?

A. I haven't much doubt but what he came back. I know he was back there very soon. I can't now state positively when he came back, but think he did before I left.

X Q. 4. Have you any entry on your diary showing when he returned?

A. No, sir; the 31st May I wrote Brown at the Central House, Waterloo; June 1st I wrote Brown at Waterloo; Saturday, June 2d, Howden, the magician, was at Independence and gave a performance at Independence, and I am confident that Brown was there at that time. The next entry I find in regard to Brown—that is, definite as to his whereabouts—was Saturday, June 23d. I was at Aurora, Ill., and wrote to Brown at Independence.

X Q. 5. On what business did Brown leave Independence and go to Waterloo?

A. On the business of this well company; don't know that he had any other business.

X Q. 6. Did Brown make any sales of territory while at Waterloo or put down any wells?

A. I couldn't say that he put down any wells there, but I think he did sell or negotiate the sales of some territory; but one occurs to me now.

X Q. 7. Of what territory was that?

A. I can't tell much about it now. I recollect he took as part payment about 50 hickory rustic chairs, which were afterwards shipped here.

X Q. 8. Did you and Brown go together to Independence; if so, who went with you?

A. I should think that the day we went there, West Chamberlain, Brown, and I went together; went there at pretty near the same time.

X Q. 9. At what time did Keeney come to Independence?

A. June 14, which was Thursday, and he left Independence with me the 18th.

1956 X Q. 10. While at Independence did your party talk up this well as being a new invention quite extensively?

A. I presume so. That was their business.

X Q. 11. You referred to some articles published in newspapers at Independence. Were they printed in the interests of your party?

A. No, sir; they were not procured by our party to be printed; were printed as matters of news.

X Q. 12. Did you or any of your party furnish any of the data or alleged facts published in these articles concerning the drive well?

A. I did not; think none of the others did.

X Q. 13. Did you become acquainted with the editors of either of these papers?

A. Yes, sir; I presume with both of them.

X Q. 14. You say that the first well of this kind that you ever saw was put down in this village. Did you know the parties or any of them?

A. When they came I knew nothing of them; afterwards I talked with them. I do not know where they came from, but understood they came from near the center of the State; not very far from here.

X Q. 15. Did you obtain any information as to how long they had been engaged in putting down these wells and how many they had put down?

A. My understanding was gained from them that it was a new invention, and that they had been engaged in putting them down but a short time; don't know how long they remained in this vicinity.

X Q. 16. Do you know how many wells of this kind they put down here in the village?

A. No.

X Q. 17. Was this well here a success, as far as its operations were concerned, in pumping water?

A. I can't tell at this moment.

X Q. 18. When did you become interested in this driven well?

A. Early in 1866.

X Q. 19. In what way did you become interested?

A. Chamberlain was the patentee of an improvement in this business, and Keeney was interested in it; Keeney called my
1957 attention to it, and I subsequently became the assignee of a part of Chamberlain's interest. I think our party at Independence operated as a company. Chamberlain's patent was on the reservoir and the mode of forming it at the bottom of the tube.

X Q. 20. Your business most at Independence was to sell off this patent?

A. Yes.

X Q. 21. Had your company been operating in any company previous to going to Independence; if so, where?

A. Yes; some in this State; more in Michigan, and some in Minnesota.

X Q. 22. After leaving Independence did you continue in this drive-well business; and, if so, for how long a time?

A. I should think the business was substantially closed up in July.

X Q. 23. Do you still retain any interest in any patent in this drive well?

A. Yes; the patent which I obtained and an undivided interest in the Chamberlain patent.

X Q. 24. Did you know of any process of constructing wells by digging a hole down to the water, inserting a tub or some other vessel bottom side up, boring a hole in the bottom of such vessel, then running a pipe down from the surface to the bottom of the pipe through the hole in the vessel, then filling up the pit or excavation with the earth thrown out, attaching a pump to the end of the pipe, and in this way obtaining water?

A. I don't know that I ever did.

(Signed) AUGUSTUS HARRINGTON.

Sworn and subscribed before me this 17th day of Aug., 1880.

(Signed) E. M. BARTLETT,
Notary Public.

An adjournment was here taken to Aug. 18th, 1880, at 1 o'clock p. m.

1958–1966 August 18th, 1880.—Parties met pursuant to adjournment, and an adjournment was then taken to August 21st, 1880, at 1 o'clock.

August 21st, 1 o'clock p. m.—Parties met pursuant to adjournment, and a further adjournment was then taken until August 23d, 1880, at 10 o'clock a. m.

(Signed) E. M. BARTLETT, *Notary.*

1967 Proceedings adjourned until 8.30 o'clock a. m., August 7th, 1880, at this place.

SATURDAY, August 7, 1880—8.30 o'clock a. m.

Convened pursuant to adjournment.
Present: As before.

HORACE DIBBLE called for complainants.

Q. 1. State your name, age, residence, and occupation.

A. My name is Horace Dibble; my age is 78 years past; my residence is Cortland village, and my occupation is wool carding and cloth dressing.

Q. 2. How long have you resided here in Cortland village?

A. Since April, 1833.

Q. 3. Did you know Colonel Nelson W. Green while he lived here in the village?

A. I did.

Q. 4. Did you know that he was acting colonel of the
1968 76th Regiment New York Volunteers, for a while quartered
on the fair ground near this village?

A. He was.

Q. 5. How was Colonel Green's residence situated with reference to your carding-mill or factory?

A. It was on the opposite side of the road, and a little west of it; five or six rods from the factory.

Q. 6. How was your own residence situated with reference to your carding-mill or factory?

A. I should think about 25 rods east of it, on the same side of the rod and towards the center of the village.

Q. 7. How was the fair grounds situated, where this regiment was quartered, with reference to your carding-mill?

A. About a quarter of a mile north, on the road towards Homer village.

Q. 8. In 1861 were you acquainted with Byron Mudge, James C. Carmichael, and Heman F. Robinson?

A. I was pretty well acquainted with Mr. Mudge and Mr. Carmichael; I knew Mr. Robinson by sight.

Q. 9. Prior to the fall of 1861 had you become pretty well acquainted in the county of Cortland and its vicinity?

A. I was pretty well acquainted in this part of the county.

Q. 10. How long, at that time, had you carried on in this county the business of wool carding and cloth dressing?

A. Since the spring of 1833.

Q. 11. During that time had you done what is termed "custom work" at your carding-mill?

A. I had.

Q. 12. State whether your business circle embraced pretty generally this county or not.
1969 A. It embraced custom for from five to ten miles about
here.

Q. 13. Up to the fall of 1861 had you ever known or heard of what has since come to be known here as a driven well?

A. I had not.

Q. 14. What do you know of the experiment of making such a well near Colonel Green's residence here in Cortland in the fall of 1861? Please state.

A. I saw men at work in Col. Green's yard; I went over to see what they were doing; I asked Col. Green what they were doing; he said they were trying to see if they could get water by making a hole in the ground and driving a pipe down, to be taken with him for the purpose of getting water for his regiment when he had got South in camp.

Q. 15. Who was there with Col. Green, if any one, at the time you were there, referred to?

A. Byron Mudge, James C. Carmichael and Mr. Robinson.

Q. 16. Did you see any implements or tools there at the time?

1970 A. I saw a bar of iron, a wooden frame, with an arm projecting from it, and a pulley on it.

Q. 17. Do you recollect whether you saw there at the time any pipe and any beetle or other driving tool?

A. There was a pipe of some kind, or tin tube, laid on the ground there, and they had a beetle there.

Q. 18. Which way from the house were the men standing when you went up to them, and about how far from the house?

A. They were east of the wood shed, or back part of the house; I should think two or three rods away from it.

Q. 19. When you had the conversation you have stated with Col. Green was he and the other men standing near these tools and implements?

A. They were.

Q. 20. What were they doing, if anything?

A. They were at work fixing the frame I have spoken of—a part of them—Mr. Mudge, Mr. Carmichael, and, I think, Mr. Robinson.

Q. 21. What, if anything, was Col. Green doing while you were there?

A. He was giving directions how to do the work, to Mr. Mudge and others.

Q. 22. Had they commenced driving the rod or bar when you came there?

A. I think not.

Q. 23. How long did you remain there with them at the time you refer to?

A. Perhaps ten or fifteen minutes, as near as I recollect.

Q. 24. Were the men there in view to yourself, being at your carding-mill?

1971 A. They are.

Q. 25. Did you see them from your carding-mill there at work after you left?

A. I did.

Q. 26. Did you during the day go to them again; if so, about what time in the day was it? Please state about how long after you were there the first time was it.

A. I went over again; as near as I can recollect I should think it was half an hour or an hour afterwards.

Q. 27. What time in the day was it when you were there the first time?

A. I think it was in the forenoon.

Q. 23. When you were there the second time was Col. Green there?

A. I think he was not; I may be mistaken.

Q. 29. State what was being done while you were there the second time.

A. I think they had made a hole in the ground then.

Q. 30. Are you able to state any more particularly as to what they were doing when you came over there the second time; if so, do so?

A. I do not know that I can—anything more than that they were still at work.

Q. 31. How long did you remain there the second time?

A. I think not but a few minutes; I do not remember exactly.

Q. 32. Did you afterwards observe anything as to the experiment; and, if you did, state what?

A. I saw them pumping there—working the pump.

Q. 33. Where were you at the time?

A. I was looking out of the carding-mill front window.

Q. 34. Are you able to state, Mr. Dibble, whom it was that you saw there working the pump as you state; how many of these persons; was Colonel Green there then?

A. The same ones that were there before, and I could not say whether Colonel Green was there or not; I do not remember

1972 Q. 35. You say they were working the pump. Were you able to see and do you remember whether, when working the pump, it produced water or not?

A. I could see where they were at work, and I am very sure that they were producing water.

Q. 36. Please state at what time in the fall of 1861 it was that you saw this well experiment made there in Colonel Green's yard, and whether or not at that time the regiment spoken of was quartered on the fair ground?

A. They were quartered on the fair ground at that time; I don't recollect the date; it was a few weeks after they went on the fair ground.

Q. 37. You speak of Mr. Mudge, Carmichael, and Robinson. Did you know at that time whether they were connected with the regiment under Colonel Green or not?

A. I understood that they were.

Q. 38. Are you able to state whether they were then reputed to be privates or officers in the regiment; if so, which—privates or officers?

A. Officers.

Q. 39. At the time Mudge, Robinson, and Carmichael were at work in the experiment mentioned are you able to state whether they had on their uniforms as officers or not?

A. Some of them had; I could not say that all had.

Q. 40. Which ones of them, do you remember, had on their uniforms as officers?

A. I think Mr. Mudge and Carmichael had.

Q. 41. Now, Mr. Dibble, state whether or not directly after the experiment you have testified to in Green's yard driven wells commenced to be and became largely in use and are still in use in Cortland and the surrounding country, so far as you have knowledge.

1973 A. Not long after that time they began to be put down, and are continued to be in use since, and they are largely in use now.

Q. 42. Where, in the county, were they first commenced to be put down, according to your knowledge?

A. The first that I knew of it was in the village.

Q. 43. State whether the number of such wells put down has been increasing or not ever since?

A. I think they have been.

Q. 44. Do you remember the shooting affair occurring in the quarters of the regiment, here in Cortland, between Col. Green and Capt. McNett, a captain of one of the companies of the regiment?

A. I do.

Q. 45. About how long after this well experiment, which you have testified to, was made did that occur?

A. I do not recollect how long it was.

Q. 46. Can you state whether it occurred in the same fall and before the regiment left Cortland?

A. It was the same fall and before they left the fair ground.

Q. 47. State whether or not, if you know, that affair led to the suspension of Col. Green's command of the regiment.

A. I could not say whether it did or not.

Q. 48. Do you know whether or not that affair led to excitement and a division of sentiment among the people here in Cortland in respect to the propriety or wrong of Col. Green's action in that affair?

A. I think that it did.

1974 Q. 49. To what extent did it prevail or how general was it that people took sides one way or the other?

A. I think that it was very general.

Q. 50. Do you know whether it led to suits and finally to an indictment against Colonel Green for his action in that affair?

A. He was indicted for it, as I understood it.

Q. 51. Do you know whether it led to any difficulty involving him in the church of which he was then a member?

A. I think it did.

Q. 52. State whether you were yourself a member of the same church at the time; and you may state what this church was of which he was a member.

A. I was a member of the same church; it was the Episcopal church of Cortland.

Q. 53. Did this difficulty in the church result in his expulsion and to his appealing to the bishop for restoration?

A. It led to his expulsion and, I think, he appealed to the bishop.

Q. 54. Has he ever been restored to his membership in the church, do you know?

A. Not that I know of.

Proceedings adjourned until 1.30 o'clock p. m.

1975 1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Cross-examination by Mr. SUGGETT:

X Q. 55. There is a brook, is there not, on the east side of the premises occupied by Green in 1861?

A. Yes; there is one near my house, but not adjoining the premises occupied by Green at that time.

X Q. 56. How far from the place where this experiment was made was that brook?

A. I should think it was from twelve to fifteen rods. I do not know exactly; it is mere guess-work.

X Q. 57. And is the surface of the land between that brook and the place where this experiment was made nearly level?

A. It is some higher, I should think, where the experiment was made than the brook.

X Q. 58. What do you say is the difference of level between the brook and the place where the experiment was made?

A. I could not tell exactly.

X Q. 59. Approximate to it as near as you can.

A. I should not think it would vary far from three feet; it might be more or less.

X Q. 60. And does the surface of the land incline evenly from the brook to the place where the experiment was made?

A. From where the experiment was made it descends somewhat to the east side of the garden.

X Q. 61. Is there also a brook, and was there in 1861, situated south from the place where this experiment was made, just across the road?

1976 A. The water on the south side of the road comes in a ditch to my shop and then runs east of the bridge and empties into the main stream.

X Q. 62. How far is the brook or stream that runs by your shop from the place where this experiment was made? Estimate the distance, as near as you can.

A. From the ditch above referred to it is eight or nine rods, as I should judge; it might be a little more.

X Q. 63. There is also a brook, and there was in 1861, situated westerly or northwesterly from the place where this experiment was made, was there not?

A. There was.

X Q. 64. And this last-mentioned brook makes a bend in towards the house where Green lived in 1861, does it not?

A. It does; I think two or three of them.

X Q. 65. Will you please estimate the shortest distance that it was from this place where this experiment was made to the last-mentioned brook in 1861?

A. I should judge that it was somewhere from two to four rods.

X Q. 66. Is there a river situated northerly from the place where this experiment was made?

A. There is.

X Q. 67. How far?

A. I cannot tell.

X Q. 68. Estimate it, as near as you can.

A. I should judge it was in the neighborhood of sixty rods; it might be more or less.

X Q. 69. What do you say as to the difference of level between the place where this experiment was made and the river?

A. I cannot tell what the difference is.

X Q. 70. Approximate to it, as near as you can.

A. I should think it might be six feet; it may be more and perhaps less; I cannot say.

X Q. 71. What is the difference of level between this brook that you have testified about, situated west of the place of this experiment—that is, the bottom of the brook—and the place of the experiment?

A. I cannot tell.

X Q. 72. Approximate to it, as close as you can.

1977 A. I should say it was two or three feet; it is mere guesswork.

X Q. 73. Taking the tract of land bounded on the east by the brook situated east of Green's house, on the south by the highway from Cortland village to Homer, on the west by the brook situated west of the place where this experiment was made, and on the north by said river, how many acres of land do you estimate there is contained in that tract?

A. I should judge there was in the neighborhood of eight or nine acres, as near as I can guess at.

X Q. 74. And is the general surface of that eight or nine acres level?

A. I think not.

X Q. 75. What do you estimate the difference of level between the highest and the lowest parts thereof?

A. I should think there might be in the neighborhood of five feet; perhaps more or less.

X Q. 76. Are these brooks, the river, and the ditch situated now, substantially, as they were in 1861?

A. I think they are.

X Q. 77. What kind of a soil is it where this experiment was made?

A. Stony, I should think.

X Q. 78. Is it more or less gravelly?

A. I should think it was.

X Q. 79. About how large stone are there?

A. I never dug to see.

X Q. 80. You can tell on the surface, can you not?

A. They are different-sized stone around the surface there.

X Q. 81. They are what are known as round cobble-stones, are they not?

A. I think they are.

X Q. 82. And what would you say is their average size?

A. The stone around there are from the size of a hen's egg to three or four inches in diameter; it might not be right there in that place.

X Q. 83. How wide was the road in 1861?

A. I cannot tell you.

1978 X Q. 84. Give it as near as you can.

A. The road is very narrow there, as it is fenced.

X Q. 85. Give the width as near as you can.

A. In front of Green's house I should think it was not far from three rods.

X Q. 86. And what were the points of the compass, approximately, of that road in 1861?

A. The same as it is now; it runs a little north of west and south of east.

X Q. 87. How far from the north fence of this road to the front side of Green's house was it?

A. I cannot tell you.

X Q. 88. Approximate to it as near as you can.

A. Something less than a rod, I should think.

X Q. 89. Did Col. Green's house, in 1861, consist of an upright part, a wing, and a wood shed?

A. It did; wood shed on back of the kitchen part.

X Q. 90. What was the length and width of that upright part?

A. I cannot tell you.

X Q. 91. Give it as near as you can.

A. I should judge, if I guessed, that it was nearly thirty feet wide; I should think it was as much as thirty-five feet long; it may be more or less, either of them.

X Q. 92. Give the approximate size of the wing, with the woodhouse thereon, as it was at that time.

A. I should guess the whole of them were in the neighborhood of fifty feet; it might be more or less, take it with the barn included.

X Q. 93. Is the house occupied by Green in 1861 on those premises now?

A. Yes; the same buildings are there, except a large barn which was then there and has since been burnt.

X Q. 94. Have those buildings been altered or removed since 1861? If so, please state how.

A. A small barn has been moved from the north end of the present shed; it was an open shed at that time—the lower part of it.

X Q. 95. How far is it from the southeast corner of the upright part of the house, as it now stands, to the place where this experiment was made?

1979 A. I cannot tell you.

X Q. 96. Give it as near as you can, by the shortest distance.

A. I should judge it was from fifty to eighty feet; it is nothing but guess-work.

X Q. 97. How far will you say it is by the shortest distance from the northeast corner of the wing to the place where this experiment was made?

A. I cannot tell you; I should think it is two or three rods as it is now, as near as I can guess.

X Q. 98. You have spoken about a regiment. When did that regiment leave Cortland?

A. I cannot tell exactly. I think it was late in the fall of 1861.

X Q. 99. While that regiment was encamped on the fair ground about how many soldiers did you understand were in it?

A. In the neighborhood of a thousand. I never knew how many.

X Q. 100. When did Colonel Green take possession of these premises which he occupied in 1861?

A. I do not remember. I think he had lived there a year or two.

X Q. 101. Will you swear positively that he had lived there a year?

A. No.

X Q. 102. Will you swear positively as to when he came there?

A. No.

X Q. 103. What had been his business previous to the time of raising this regiment, as far as you know?

A. He had been at work on his place there considerably the first spring after he came there.

X Q. 104. How many acres of land was there with the place?

A. I think there must have been in the neighborhood of twelve acres, more or less.

X Q. 105. Did Colonel Green leave with the regiment when it left?

A. I think he did.

X Q. 106. Do you know?

1980 A. I am pretty sure he did.

X Q. 107. Are you positive that he did?

A. No; I could not say positively that he did.

X Q. 108. After the regiment left did Green's family continue to live there?

A. I think not.

X Q. 109. How soon after the leaving of the regiment did they move?

A. I could not say.

X Q. 110. Did they continue to live there during the ensuing winter?

A. I think not.

X Q. 111. Where did they move to after leaving?

A. I think they went in with Mr. Bradford here in the village.

X Q. 112. Do you mean Daniel Bradford?

A. Yes.

X Q. 113. And where were his premises situated, where they lived?

A. On the west side of Main street, where Masonic Hall block now is.

X Q. 114. And was this Bradford's place in the very business center of Cortland at that time?

A. I do not think it was as much as it was on the other side of the street.

X Q. 115. How far was it from the county clerk's office?

A. I cannot say.

X Q. 116. Give it as near as you can.

A. Ten or fifteen rods, more or less.

X Q. 117. On the same side of the street?

A. Yes.

X Q. 118. Was there a drug store and a grocery store situated just north of this Bradford place on the same side of the street?

A. There was.

X Q. 119. And also was there the engine-house situated on the same side of the street, about eight or ten rods south of this Bradford place?

A. There was, if it was built at that time. I do not recollect as to that.

1981 X Q. 120. Do you say it was not built?

A. I do not remember as to that.

X Q. 121. How far, in 1861 and up to 1865, was the post office in Cortland village from this Bradford place?

A. I do not recollect where it was at that time.

X Q. 122. Supposing it was located in the Schermerhorn block in the bank building, how far would it be from the Bradford place?

A. In the neighborhood of ten to fifteen rods.

X Q. 123. And would the natural and usually travelled route one would have taken in those years from said Bradford's place to the post office be by the engine-house and clerk's office and on the same side of the street?

A. I should think it would be more natural to come down on this side of the street and cross over to the post office than it would be to cross over further up Main street and come down on the other side to the post office.

X Q. 124. How wide was Main street in those days?

A. I do not know; I never measured it.

X Q. 125. Approximate it as near as you can.

A. I should think it was four rods; perhaps more.

X Q. 126. After Colonel Green left with the regiment, as you say, in the fall of 1861, when did he again return to Cortland?

A. I could not say exactly when it was.

X Q. 127. Did he return the next year?

A. I think he did.

X Q. 128. And did he then reside with his family at Bradford's?

A. I think he did for a while.

X Q. 129. And did he so continue to reside with them up to the time when he moved back to his premises near the carding-mill described by you?

A. It is my impression that he did, but I cannot say for certain.

X Q. 130. Did you use to see him in and about the village and on the streets after his return from the army?

A. I seldom saw him in the village here.

1982 X Q. 131. Your time was mostly taken up with your duties in and about your carding-mill, was it not, during the years 1861, 1862, 1863, 1864, and 1865?

A. It was, most of the time.

X Q. 132. And you did not, in the years 1861, 1862, 1863, often go down into the village, did you?

A. I used to go down in those days frequently to the post office—never without I had some errand.

X Q. 133. Did you not employ most of your time night and day, during certain seasons of those years, carding wool?

A. I did; during the summer season.

X Q. 134. And was not most of your time in the other seasons engrossed in dyeing and dressing cloth and your duties on your land and premises around your house?

A. Most of my time was.

X Q. 135. When Colonel Green was in possession of his premises near your carding-mill, as you have testified, did he not do the most of the work done thereon?

A. He did considerable work when he first went there, but afterwards very little.

X Q. 136. In the year 1863 will you swear that Colonel Green did not himself mow the grass and get it on his premises?

A. I cannot say that he did not.

X Q. 137. Will you swear that in 1862 he did not himself mow the grass and do the haying on those premises?

A. I cannot say that he did not; there was very little on the premises to cut. I think he had help in getting it in.

X Q. 138. Will you swear that he had any other help than his own small children?

A. It is my impression that he had; his children were small then.

X Q. 139. I did not ask you for your impression; I ask you whether or not you will swear positively to it?

A. As to the year I do not remember, but I helped him get in some hay there once; whether it is the same year that you have reference to or not, I cannot say.

X Q. 140. Did you ever help him more than once to get in hay?

1983 A. I do not recollect.

X Q. 141. You were his nearest neighbor, were you not?

A. Yes, sir.

X Q. 142. How large a family did Colonel Green have in 1862 and 1863?

A. He had his wife and four children.

X Q. 143. And while living near these premises where your carding-mill was, the family and the Colonel were on intimate terms with you and your family, were they not?

A. They were, as far as I recollect it.

X Q. 144. And during those years did not the Colonel plant his own garden, attend to it, and also work the other cultivated land on the place?

A. I think he planted his own garden; there was but very little work done on the land.

X Q. 145. Did he not during those years raise any grain or plant any corn or raise other vegetables?

A. I do not recollect that he did, except what he raised in his garden.

X Q. 146. Will you swear that he did not?

A. No; there was a time while he lived there that he raised a few vegetables across the brook, but whether it was in either of those years or not I do not know.

X Q. 147. How large a garden was it that the Colonel occupied and planted in those years?

A. It might have been an eighth of an acre; it might have been a little more; he did not occupy as much as is in the garden now—not half as much.

X Q. 148. How much live stock did he keep in the years 1862–1863 on the premises?

A. He kept one cow until his barn and cow were burned up; he did not keep anything after that; I do not know what year it was.

X Q. 149. On the north part of these premises, occupied by Green in 1861 and in the years 1862, 1863, and 1864, there was some standing timber and underbrush, was there not? Please state about how much.

A. There was some standing timber and brush; I cannot say how much land it occupied.

1984 X Q. 150. And do you not know that in the years 1862 and 1863 and until March, 1864, Colonel Green was frequently engaged in getting timber there for fire-wood and cutting down the underbrush and clearing or partly clearing up the land?

A. I do not know that he did much work there; he cleared off some old logs there, I think, for the wood; he took some wood out of the creek.

X Q. 151. Did he not get all the fire-wood there during those years that was used at his house?

A. I do not think that he did.

X Q. 152. Will you swear that he did not?

A. I think I can say that he did not.

X Q. 153. Mr. Dibble, you apparently do not understand my question. My question is, Will you swear positively that he did not during those years get all of his fire-wood used at his house off his own premises? Please answer directly.

A. I think I can testify that he did not.

X Q. 154. Will you swear positively, then, that he did not so get his fire-wood?

A. I think I can; I have seen wood drawn there that did not come from those islands on his own premises.

X Q. 155. How many loads of wood are you willing to swear positively to that you saw drawn onto those premises of Green's during those years?

A. One or two; perhaps more.

X Q. 156. Will you now swear positively that you saw more than two loads of wood so drawn on during those years?

A. No.

X Q. 157. During those years did you not see Colonel Green often at work getting wood—flood-wood and other wood—out of the streams and water on his premises and piling the same on the bank to dry out?

A. Not often.

X Q. 158. Have you not seen him thus engaged?

A. I have; I helped him get flood-wood once.

X Q. 159. On one of these islands, on the north part of his place, did he not during those years fix up a swing for his children?

1985 A. I could not say that he did; I never saw it.

X Q. 160. Will you say that he did not?

A. I would not say that he did not.

X Q. 161. Did you understand that he did?

A. I think I have heard something said about it; by whom I do not know.

X Q. 162. What do you understand the distance to be from the place where Col. Green lived, near the carding-mill, to the post office in the village of Cortland, during the years 1862 and 1863 and up to March, 1864?

A. From a half to three-quarters of a mile.

Proceedings adjourned until Monday, August 9th, 1880, at 10 o'clock a. m., at this place.

1986 & 1987 MONDAY, *August 9th*, 1880—10 o'clock a. m.

Convened pursuant to adjournment.

Present: D. L. Hurlbut, Esq., for complainants; defendant appears specially, as before, by John W. Suggett, Esq., and Irving H. Palmer, Esq.

Complainants' counsel ask that the further cross-examination of the witness, Horace Dibble, be suspended for the day.

Defendants' counsel do not consent, unless this witness be produced in time for the full completion of his cross-examination before the time allotted to complainants to close their rebutting testimony expires.

TUESDAY, *August 17th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: William D. Andrews, Esq., one of the complainants, and D. L. Hurlbut, Esq., for the complainants, and Irving H. Palmer, Esq., appearing specially for the defendant.

1988–1993 Mr. John W. Suggett here also appears for defendant, as above.

HORACE DIBBLE is here produced for further cross-examination.

1994 2 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: D. L. Hurlbut, Esq., for complainants, and John W. Suggett, Esq., for defendant.

Cross-examination of HORACE DIBBLE resumed:

X Q. 163. You have stated, on your direct examination, that you saw some men from the window of your shop at work in Colonel Green's yard; how many men did you see?

A. I think there were four there.

1995 X Q. 164. You have stated that Colonel James C. Carmichael, Heman F. Robinson, and Byron Mudge were there; who else?

A. Colonel N. W. Green.

X Q. 165. What time in the day was it that you thus saw them?

A. I think it was in the forenoon.

X Q. 166. What hour in the forenoon?

A. I could not state what hour.

X Q. 167. State as near as you can.

A. I should think it was between seven and twelve.

X Q. 168. Is that as near as you can give it?

A. I could not state any particular hour.

X Q. 169. From which window in your shop did you see the men?

A. From the middle window in the carding-room.

X Q. 170. That room is in the upper story at the west end of the carding-mill, is it not?

A. It is.

X Q. 171. What had you been doing that morning?

A. I was carding.

X Q. 172. What time in the year do you usually commence to card?

A. From the 1st to the 10th of June generally.

X Q. 173. And how long do you continue?

A. We generally card steadily until September, and then occasionally until November or December.

X Q. 174. Are you sure that you had been carding on this morning that you saw these men in Green's yard?

A. Yes.

X Q. 175. Will you swear that you had not been repairing and overhauling your carding machine that morning?

A. I might have been cleaning some part of the machine that morning, and might not; I do not remember; it was something we had to do pretty much every day.

X Q. 176. Who was your nearest neighbor on the west on the side of the road that you lived on?

A. I think it was Timothy Rose, if he lived there at that time; that was the nearest house at that time on the road to Homer.

1996 X Q. 177. Did Timothy Rose live there at that time?

A. I think he did.

X Q. 178. Who lived next to Timothy Rose?

A. I cannot remember who it was; somebody in his house.

X Q. 179. Have you no recollection of who it was, after reflection

A. I cannot tell who it was; there were changes there very often; almost every year.

X Q. 180. Who were the nearest neighbors on the east at that time?

A. I think it was Mr. Messenger.

X Q. 181. Are you sure that Mr. Messenger had moved there then?

A. I think he had, but am not positive.

X Q. 182. Was Timothy Rose in your shop that morning?

A. I do not recollect that he was.

X Q. 183. Would you swear that he was not?

A. I do not think he was, for he did not come into the shop very often; possibly he was, but I do not think he was.

X Q. 184. You base your last answer more upon a process of reasoning than upon your recollections, do you not?

A. I have no recollection of his being there that day.

X Q. 185. What was the day of the month that you say you saw these men there?

A. I could not tell you.

X Q. 186. What was the month that you saw them there?

A. I do not recollect; it was in the fall.

X Q. 187. What months do you include in the term fall?

A. September, October, and November.

X Q. 188. Now, will you please give your best recollection as to what month it was?

A. It was soon after the regiment went onto the fair ground, I think; my impression now is that it was in September; it might have been in October.

1997 X Q. 189. After you have carded wool for the farmers and your customers they come after it usually in the fall, and especially in the month of September, about fair-time, do they not?

A. No more than at other times that I know of.

X Q. 190. Who came after wool on the morning of the day on which you saw these men making this experiment?

A. I cannot tell you.

X Q. 19. Have you got any memorandum or data by which you can tell?

A. If I could recollect the day I could tell who took rolls away.

X Q. 192. Who was in the shop there with you?

A. My son Eustace.

X Q. 193. Do you remember distinctly of his being there in the shop with you on that day?

A. I do.

Proceedings adjourned until Wednesday, August 18th, 1880, at 8 o'clock a. m., at this place.

WEDNESDAY, *August* 18, 1880—8 a. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of HORACE DIBBLE resumed:

X Q. 194. You say that there was a frame up; will you please describe that frame?

A. There was an upright post and near the top was an arm, and a pulley on the end of the arm and a brace under the arm.

1998 X Q. 195. What was the size of that upright part? Give its breadth and thickness.

A. I could not tell exactly.

X Q. 196. Give it as near as you can.

A. I should think it was five or six inches square; it might not have been exactly square; I do not remember as to that.

X Q. 197. What was the breadth and thickness of the arm that projected out?

A. I could not tell exactly.

X Q. 198. Give it as near as you can.

A. I should think, as near as I can recollect, from four to six inches.

X Q. 199. Was the upright part fastened in the ground?

A. I should think not.

X Q. 200. How was it kept in an upright position, then?

A. I think it was fastened to a timber that lay upon the ground.

X Q. 201. What was the size of that timber that lay upon the ground? Give its breadth, thickness, and length.

A. I have no particular recollection as to the size of it.

X Q. 202. Give it as near as you can.

A. I do not know as I can give it any different than I have done.

X Q. 203. It was not smaller than the upright post, was it?

A. I presume not.

X Q. 204. Was this upright post fastened to any other timber than the one you have described that laid upon the ground?

A. I do not recollect that it was.

X Q. 205. Did not this arm project at right angles from the perpendicular plane of the timber that laid upon the ground?

A. I presume it did.

X Q. 206. I did not ask for your presumption, but for what you know; will you please answer the question?

A. I made a mistake; it was the same plane.

1999 X Q. 207. What was the length of the horizontal arm that projected from the upright post?

A. According to my best recollection it was not far from three feet; it might have been a little more or a little less.

X Q. 208. Give your best judgment and recollection of one-half of the length of the timber that laid upon the ground.

A. I have no particular recollection as to the length or half of the length of it.

X Q. 209. Now, Mr. Dibble, can you not give us some opinion or judgment as to what was the length of half of that timber that laid upon the ground? Please try to do so.

A. I have no particular recollection as to the length; it must have been long enough to form a support to the post.

X Q. 210. Is that the best answer that you can give?

A. It is according to my present recollection.

X Q. 211. From the underside of this arm, that projected out, what was the distance down to the top side of this timber that laid upon the ground?

A. I do not know exactly.

X Q. 212. Give it as near as you can.

A. I should think about six feet; not far from that.

X Q. 213. Was there any rope used with this pulley?

A. I think there was.

X Q. 214. Will you give the size of that rope as near you can?

A. I should think from half to three-quarters of an inch in diameter.

X Q. 215. Now, upon reflection, do you not remember that it was a clothes-line?

A. I do not remember that it was.

X Q. 216. Will you swear that it was not?

A. No.

X Q. 217. What was the length of the rope?

A. I could not tell.

X Q. 218. How was the rope used?

A. I did not see it used after it was there.

2000 X Q. 219. What did you understand from Col. Green or any of the workmen was the object of the frame of which you have testified?

A. I understood it was for the purpose of assisting in drawing the iron bar or rod from the ground.

X Q. 220. How did you understand that the rod was to be drawn out by means of this frame-work? Please describe.

A. I did not see it used, but supposed it was to be tied around the rod and passed over the pulley.

X Q. 221. How long was this rod that was used?

A. Five or six feet, according to the best of my recollection.

X Q. 222. And what was its diameter?

A. As near as I can recollect, from an inch and a half to two inches.

X Q. 223. Did they use a beetle to pound it down or did they raise it with their hands and chuck it down as a person would an iron bar in making a hole for a stake?

A. I think I did not see them use it at all for that purpose.

X Q 224. Then you did not see any of the operation?

A. In making the hole in the ground, I did not.

X Q. 225. No; you did not see any driving done, did you?

A. I think not.

X Q. 226. The hole had not been made, then, when you went over, but they were simply preparing to make the hole, and the tools lay upon the ground; is this not so?

A. It is so; they had not commenced.

X Q. 227. They had a tin boat-pump there, did they not?

A. They had a pump there.

X Q. 228. What kind of a pump was it? Please describe.

A. My impression is it was tin, but it might have been sheet iron.

X Q. 229. How was it constructed?

A. I could not tell whether it was round or square; it had a spout near the top, according to my best recollection.

2001 X Q. 230. The pump was made substantially as follows, was it not: A tin tube about one inch in diameter and of the same diameter for about five feet was made; at one end of this tin tube there was placed a tin funnel-shaped piece, just under which there was made a tin spout; in this tin tube, thus prepared, there was placed a wooden stick about one-half inch in diameter, to the bottom end of which stick was made a cone-shaped leather valve, there being at the upper end a small cross-piece to form the handle; this wooden rod being about five feet long, and was operated up and down more or less rapidly in this tin tube to produce water?

A. I could not tell anything about the construction of it farther than I have done, only I saw them using a pump from my shop window.

2002 X Q. 231. You did not see them, then, use this beetle at all?

A. I think not.

X Q. 232. And you do not know that the beetle was used, do you?

A. I did not see it used, as I recollect.

X Q. 233. When was it you saw Col. Green there?

A. It was the first time I went over.

X Q. 234. And was he there when you left?

A. I should think he was.

X Q. 235. Will you swear positively that he was?

A. I am sure that he was.

X Q. 236. Now, Mr. Dibble, upon reflection, at the moment of Mudge, Carmichael, and Robinson driving up there with their tools in the wagon was not Col. Green suddenly called to camp, and did he not immediately mount his horse and ride away and not return until they had commenced pumping?

A. I have no recollection about that circumstance—of their coming and his going away.

X Q. 237. You were not present there after this conversation that you had with Green?

A. I think I was over there again the same forenoon.

X Q. 238. Are you sure that you were?

A. Pretty sure.

X Q. 239. The second time that you were over there this experiment was through with, was it not?

A. I should not think it was.

X Q. 240. What were they doing when you were over there the second time?

A. I think they were still making preparations.

X Q. 241. What was they doing?

A. I could not specify what; not now.

X Q. 242. Do you mean they were making preparations preparatory to commencing actual operation this second time you were over there?

A. That is what I meant.

2003 X Q. 243. You were not actually present when they were pumping water out with the pump, were you?

A. No.

X Q. 244. Nor while they were driving or forcing the rod down, nor while it was in the ground, nor while they were removing it, were you?

A. No.

X Q. 245. After Col. Green returned from the army, in 1862, did the friendly relations between you and your family and him and his family still continue?

A. Yes.

X Q. 246. Mr. Dibble, you being an old man, you do not claim that your memory is as retentive and as good as it formerly was, do you?

A. No.

X Q. 247. And this conversation that you had with Green having taken place over 18 years ago, you do not claim, do you, that you have given it accurately, word for word, as it occurred?

A. I do not claim that my testimony is word for word as it was then, but how it varies I cannot tell.

X Q. 248. And that conversation having taken place over 18 years ago, and your memory, as you say, not as good and retentive as it used to be, do you now claim that you may not even be mistaken in the substance of what you testified to?

A. I think my statements are substantially correct.

X Q. 249. Will you swear positively that you are not mistaken?

A. I think I can.

X Q. 250. Will you now swear positively that you are not mistaken?

A. I will swear that the conversation is substantially correct.

X Q. 251. Where were most of these visits of Colonel Green made during these years, at your house or shop?

A. I think oftener at the house than at the shop—occasionally at the shop.

X Q. 252. From his return from the army in 1862 up to 1866 did not Col. Green apparently have a great deal of business?

2004 A. He was away from home a great deal daytimes; I do not know what he was about; he was down-town somewhere a great deal of the time.

X Q. 253. Did you use to see him go by your shop or house and go down to the village about every morning, noon, and night, and return during those years?

A. I saw him frequently; not every noon or night or morning;

there were weeks that I did not see him along after he came back from the army.

X Q. 254. Will you now swear positively that there was ever a week passed during those years that Col. Green did not go down to the village and return?

A. I think I can.

X Q. 255. Will you swear positively that there was any two weeks passed at any one time that Col. Green did not go down into the village and return?

A. Not positively, but I think there were times he was gone more than that, as I understood, to Washington and that way.

X Q. 256. Were you testifying in your last answer to positive knowledge that he went to Washington or elsewhere, or did somebody tell you?

A. That is my understanding—that he had been there—and I am very sure he told me himself; that is my recollection now.

X Q. 257. Did he used to discuss war news with you and read the papers?

A. He frequently talked about his troubles connected with his military affairs; I do not know about his reading the papers.

X Q. 258. Did he not also talk about the general war news of the day?

A. I never heard him say but very little about the general war news—occasionally.

X Q. 259. Did he apparently have any legitimate business which he followed?

A. His business after the war, as far as I knew, was connected with his troubles of military affairs.

X Q. 260. Question repeated.

2005 A. I do not recollect of any except his common, family affairs; there was a time, I think, he studied law, but cannot tell when.

X Q. 261. From the time that he moved to that place up to the time of the formation of this regiment did he have any legitimate business?

A. I do not recollect of anything except what was connected with his home then?

X Q. 262. And after his return from the army, in 1862, did he pursue any legitimate calling, profession, or business that you know of, excluding in your answers anything in relation to any alleged troubles of his?

A. I do not recollect that he did; I do not recollect whether it was before or after he came back from the army that he studied law.

X Q. 263. Did he raise enough from this place to support himself and family?

A. I should think not.

X Q. 264. Do you know that that was not so?

A. According to my best judgment, I do not think he could raise enough.

X Q. 265. Do you remember of Byron Mudge returning from the army in the spring of the year 1862?

A. I recollect of his returning from the army, but I could not state when now.

X Q. 266. Do you remember that after he (Mudge) returned from the army the first time he commenced sinking driven wells, so called?

A. I remember of his driving wells, but do not remember the time it was.

X Q. 267. Was it not as early as the years 1862 and 1863?

A. I could not state the time.

X Q. 268. Did not James Suggett also, at an early date, drive wells in and about the village of Cortland?

A. I think he did.

X Q. 269. And did not you hear or learn that he was driving wells in Cortland during the early years of the war?

2006 A. I learned that he was driving wells, but the year I could not say; it was during the war, I think.

X Q. 270. Did you not frequently see him or his employees passing along in front of your house with tools, bars, pipes, pumps, wagons, and teams during these early years of the war?

A. I think I have seen him pass with such implements; not very often.

X Q. 271. Have you not also seen Byron Mudge pass with tools and implements for the making of driven wells?

A. I do not recollect of seeing him pass with them.

X Q. 272. When James Suggett commenced to make driven wells in Cortland did you not hear it said that he had hit upon a good thing and was in a fair way to make some money out of it, and that he was making money out of it, or something to that effect?

A. I did.

X Q. 284. And did you learn that he was extensively engaged in making wells all around the village and followed that as a business?

A. I understood so; I do not remember the time; it was after they were introduced some.

X Q. 285. During those early years your business during the summer required that your carding-mill be run all night; is this not so?

A. I did require it.

X Q. 286. And from about what time during the year and up to about what time did you run the mill nightly?

A. From about the middle of June to the last of August or September, and sometimes later in the season.

X Q. 287. And when you were not engaged in running the carding-mill you were engaged in dyeing the cloth and dressing the same, were you not?.

A. I was quite extensively until late years.

X Q. 288. When did you thus cease to dye and dress cloth?

A. I have not done anything much since the war.

X Q. 289. And were you quite extensively engaged in dyeing, pressing, and dressing cloth during the years of the war?

2007 A. I did considerable at it, but not so much as I had formerly—30 or 40 years ago.

X Q. 290. During the early years of the war you did not go to the village very often, did you, but were detained at your mill, were you not?

A. I seldom went to the village in the daytime, but frequently went down in the evening after the mail.

X Q. 291. About how many rods would you say that James Suggett lived from the residence of Colonel Green during the years that he (Suggett) was engaged in driving the driven wells?

A. I cannot tell, but should guess from 75 to 100 rods.

X Q. 292. Otter creek supplies the water for your mill-race and did in 1861, did it not?

A. It did.

X Q. 293. And in 1861 and during the years of the war your mill-race and Otter creek was considered a very good trout steam, and was resorted to by people and sportsmen of the village and elsewhere for the purpose of fishing; is this not so?

A. I think it is so.

X Q. 294. And during those years did you not often see Col. Green engaged in fishing in this creek or mill-race or the other streams around his house?

A. Not often.

X Q. 295. Did you not frequently see him?

A. Not frequently.

X Q. 296. Have you not seen him fishing there?

A. I think I have; I do not recollect any particular time.

Proceedings adjourned until 1.15 o'clock p. m.

1.15 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of HORACE DIBBLE resumed:

X Q. 297. Do you remember the raising of the 157th regiment during the war in the summer of 1862?

2008 A. I do.

X Q. 298. Do you remember that Col. Green made speeches and went to adjoining counties to assist in helping to raise this regiment?

A. I do not recollect.

X Q. 299. Will you swear that he did not?

A. No.

X Q. 300. Col. Green was somewhat of a society man in the village during those years, was he not?

A. I think he was more before the McNett affair than he was after.

X Q. 301. I did not ask you for that. Will you please answer my question?

A. He was somewhat.

X Q. 302. His wife and family also mingled in society here in the village during those years, did they not?

A. They did to some extent; I do not know how much.

X Q. 303. And his children attended the academy during those years, did they not?

A. I think the two oldest ones did.

X Q. 304. And you had children also who attended the academy, did you not?

A. I had.

X Q. 305. And did you not learn or know that Col. Green was usually present on Friday afternoons weekly when public rhetorical exercises were held in the academy? State in this direction what you heard or know.

A. I did not know that he was usually present; I think I heard of his being there occasionally.

X Q. 306. What was the number of the members of the Episcopal church in 1861?

A. I could not tell.

X Q. 307. It was very small, was it not?

A. It was small in comparison to some of the other churches.

X Q. 308. And this trouble with Dr. Meacham, the rector of that church, was caused by Col. Green's insulting and abusing him; is this not so?

A. I suppose it was in consequence of their difficulty.

2009 X Q. 309. Did you not understand that Col. Green used blasphemous language toward Dr. Meacham, the rector?

A. I heard so.

X Q. 310. And you did not uphold Col. Green in what he said and done toward Dr. Meacham, the rector, did you?

A. No; I did not uphold him.

X Q. 311. And did you not understand that Dr. Meacham subsequently withdrew all charges against Col. Green?

A. I do not know as I understood so.

X Q. 312. How many churches were there in the village at that time?

A. I think there were five.

X Q. 313. And Col. Green and his family after leaving the Episcopal church attended at the Presbyterian church, did they not?

A. I think not; they attended the Baptist.

X Q. 314. Were you sworn on behalf of Wm. D. Andrews and others in the years 1872 or 1873?

A. I was sworn about that time; I think it was one of those years.

X Q. 315. Previous to the time you were so sworn or during the time how many times do you think that Wm. D. Andrews was at your house or shop?

A. I do not recollect of his ever being at my house, but he was at my shop once or twice.

X Q. 316. The same question as to Orlando Bennet, commonly known as Capt. Bennet?

A. He was there with Mr. Andrews at the shop.

X Q. 317. The same question as to the Hon. Milo Goodrich and Joseph C. Clayton, the complainants' counsel, or either of them?

A. I do not recollect of either of them being there.

X Q. 318. All of these gentlemen stopped at the Messenger House in this village at that time, did they not?

A. I suppose they did, but do not know whether they all did or not.

X Q. 319. Were you not at the Messenger House a number of times, in the room of complainant, Wm. D. Andrews, preparatory to being sworn in that case, and have you not since so stated?

2010 A. I was there once or twice; I do not recollect more than twice.

X Q. 320. Will you swear that you were not there more than a half a dozen times?

A. I will; I was not there as many times as that, I think.

X Q. 321. And was not your son, Eustace D. Dibble, subsequently appointed by the complainant, Wm. D. Andrews, to collect royalties on driven wells in this county?

A. He was.

X Q. 322. And did he not accept that appointment and enter upon its duties in this village and county?

A. He did.

X Q. 323. And did you not understand that that appointment was given to him in part consideration at least for what you and he had done for the complainants, William D. Andrews and Nelson W. Green?

A. I do not so understand it.

X Q. 324. Will you state, then, how you do understand that he got that appointment?

A. I do not know how he got it.

X Q. 325. He was living at your house at the time he got it, was he not?

A. He was.

X Q. 326. And have not you stated to more than one individual that that appointment was given to him in consideration of what he and you had done for Wm. D. Andrews and Col. Green?

A. I do not recollect of making any such a statement.

X Q. 327. At that time he was collecting royalties here; the people were very indignant, and you were asked how your son came to engage in this business, were you not?

A. I think I was asked that question by some one; I do not know who.

X Q. 328. Were you not asked that question or substantially that question by a number of citizens?

A. I do not recollect that I was.

2011 & 2012 X Q. 329. Will you swear that you were not?

A. I do not think I was asked that question by a number of persons.

X Q. 330. Did not the citizens talk with you more or less about it—about collecting royalties?

A. Some of them did.

X Q. 331. And he had been a witness in that case, had he not?

A. He had.

X Q. 332. And was there nothing said about the friendship that existed between Col. Green and you and your said son being the cause of the appointment of the latter?

A. I do not recollect anything.

X Q. 333. Was it not understood by you and your family that that was the cause?

A. It might have been to some extent.

Redirect examination:

R. D. Q. 334. You say that Col. Green did not go into society as much after the shooting of McNett and his expulsion from the regiment; did you attribute that fact to his difficulties?

A. I supposed that that was the cause.

R. D. Q. 335. Did you understand the difficulty between Col. Green and Dr. Meacham had arisen from Col. Green defending himself as to the shooting of McNett and using perhaps improper language against those who decided against him, and that Dr. Meacham took sides against Col. Green as to his shooting McNett?

A. I understand that that was the principal cause of their difficulty.

(Signed) HORACE DIBBLE.

Examination of this witness closed.

Subscribed and sworn before me this 18th day of August, 1880.
[SEAL.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

2013 HIRAM CRANDALL called for complainants:

Q. 1. State your name, age, residence, and occupation.

A. My name is Hiram Crandall; age, 62 years the 14th of May last; residence, Cortland village, N. Y., and my occupation, a lawyer.

Q. 2. How long have you resided in Cortland village?

A. Since 1843 in Cortland village, and in the town of Cortlandville since 1832.

Q. 3. State whether you were lately the county judge of Cortland county, this county; and, if you were, state from what time to what time.

A. I was; from January 1st, 1860, to January 1st, 1868—eight years; it was two terms in those times.

2014 Q. 4. Do you know Colonel Nelson W. Green, formerly of this village? If so, state when you became acquainted with him, and how well you have known him since that time.

A. I am well acquainted with him; I first became acquainted with him when he first came here, I think in 1860 or in the early part of 1861, and saw him very often during all the time that he resided in this place; I transacted business and drew papers for him and had to do with him about raising the regiment in 1861 here; received moneys for — paid them over to him or according to his directions; visited him and his family at his house; he visited me and my family at my house and was frequently at my office; I met him at the neighbors and in social circles sometimes and conversed with him.

Q. 5. In the fall of 1861 did Colonel Green, as you understood, while acting as colonel, shoot one McNett, who was also then in the regiment of which he was colonel, for an alleged mutiny in camp? If yea, state what official relation you had in reference to such shooting.

A. He did shoot McNett, as I understood, and I, as county judge, issued the warrant for the arrest of Colonel Green for the shooting of McNett; I took the bond of recognizance for his appearance on that charge; I think I was one of the members of the court of oyer and terminer of Cortland county when the case was tried; I was a member of all the courts of oyer and terminer held in
2015 Cortland county from the fall of 1861 until his case for the shooting of McNett was finally disposed of, in about the year 1866 or 1867; the case was called up at every term in the oyer and terminer and was put over at each term until it was finally tried and disposed of. There were two courts of oyer and terminer held each year in Cortland county during that time.

Q. 6. Was he indicted on that charge; and, if so, what was the indictment for and when found?

A. He was indicted, at the first court having a grand jury after the offense, for assault and battery with intent to kill; that is my recollection.

Q. 7. What public position did you occupy, if any, in relation to military preparations which were made in the county during the late civil war? If you state that you occupied any, state when it commenced and how long it continued.

A. I occupied the position of a member of the committee appointed by the board of supervisors of Cortland county for the purpose of raising troops to fill the quota of Cortland county, except the town of Solon; I was appointed about the year 1864, and it continued, I suppose, until the close of the war; I was also appointed commissioner by the Governor of New York to superintend the draft, and in that capacity I heard the excuses of men who had been returned as liable to be drafted for a month or two prior to the draft, which I afterwards superintended for the county of Cortland, and which took place; as a member of the committee for raising volunteers I was appointed a subcommittee to sell to the town of Solon the surplus men the committee had enlisted, after filling the quota of all the other towns of the county, and I sold thirteen such surplus men for seven hundred and twenty-five dollars apiece.

Q. 8. Were you conversant with the raising and organ-
2016 izing of the 76th Regiment of New York Volunteers, raised here in the summer and fall of 1861? If so, state what you had to do, if anything, and how much you knew of the proceedings in the raising and organizing of the regiment.

A. I knew of the organizing of the 76th regiment, raised in this county in the summer and fall of 1861; I signed a recommendation for Green, with others, when they attempted to start a regiment. I was up at the fair grounds where the camp was established when the men came together; I was up there from time to time while the regiment was being formed, and was called upon from time to time to go there by some of the officers of the regiment, in my official capacity as surrogate and county judge, for the purpose of appointing guardians for minors who were enlisting, so that the guardians could consent to the enlistment; I also joined the squad of men at Squire's Hall, to be drilled by Colonel Green and Heman F. Robinson, who had both been cadets at West Point, and by Carmichael (James C.) and Byron Mudge; we went there from time to time before the regiment was formed and were drilled in military exercises.

Q. 9. You say you signed a recommendation for Green with others; what was that recommendation for?

A. It was to give the persons who might wish to volunteer in the regiment to be formed confidence in Colonel Green as to his being a man educated and versed in military tactics at West Point, and to his being a fit and suitable man to get up a regiment. I can only state my impressions as to that recommendation; I have not seen the recommendation in a good many years and do not remember how it reads; therefore I only wish to be understood as giving my impressions in regard to the recommendation.

2017 Q. 10. Was Colonel Green the active and leading man in forming the regiment and disciplining those men in the drill squads?

A. He was; Robinson, Carmichael, and Mudge were under him, and the rest of us were under the whole of the four.

Q. 11. What was the military name of the commander of the 76th regiment on the fair ground at Cortland?

A. Camp Campbell, I think.

Q. 12. How frequently were you in the camp of the regiment after it went into camp?

A. I was there very frequently; every day or two or few days; I cannot state how often.

Q. 13. Who was in command as the highest officer of the regiment at the camp?

A. N. W. Green.

Q. 14. In what capacity at that time did James C. Carmichael, Heman F. Robinson, and Byron Mudge, then of this village, occupy in the regiment of which you say Col. Green was the commanding officer?

A. They acted as subordinate officers to Col. Green in the regiment; I think Mr. Robinson acted as adjutant; I cannot state what positions the other two occupied.

Q. 15. Were they connected with the regiment under Col. Green during its formation?

A. They were.

Q. 16. When you were in camp state whether or not you saw these men named acting in official capacities subordinate to the command of Col. N. W. Green in matters connected with the camp or regiment?

2018 A. They were acting in subordination to Col. N. W. Green in the camp, on parade, and marching through the village streets.

Proceedings adjourned until 1 o'clock p. m.

1 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Examination of HIRAM CRANDALL resumed:

Q. 17. Do you know anything of the origin of the driven well, so called? If so, state what you know about it.

A. I know something about it; I heard Green (N. W. Green) say that he thought he could get water for his regiment when they went South by making a hole in the ground with an iron rod and by inserting a pipe in the hole, with a pump on the top of the pipe, and I heard it talked that Green stated or thought that he could get water in that way; the idea was ridiculed by these various persons who heard Green talk about it and by myself also; I was going up to Camp Campbell one day from the village here, passing the residence of Col. Green, nearly opposite the carding-machine of Mr. Dibble, and I saw J. C. Carmichael's horse and wagon, with some articles in it, in the rear of Green's house—northerly of his house, I should say; I saw J. C. Carmichael, Heman F. Robinson, and Byron Mudge erecting apparently some structure for putting down a driven well, and I was informed that they had been detailed to make experiments by Col. Green as to the feasibility of his plan of getting water by making a hole in the ground, putting in a pipe with a pump on top of it, and pumping water out of the hole
2019 in that way; I heard that they succeeded in getting water in that experiment; I was afterward on the fair ground at Camp Campbell and inspected a driven well there which had been made after Green's idea, and which was used by Julius A. Graham and Wheeler, who had the contract for victualling the regiment; it worked well apparently, and was used to supply water for cooking and other purposes of the regiment there.

Q. 18. When was it, in reference to the experiment at Col. Green's house in making the driven well, that Col. Green stated to you his ideas and method of getting water for the regiment to take with them?

A. It was prior to the assembling on the fair ground of the troops and prior to the two wells being made that I have mentioned. It was after the surrender of Mulligan, on the Missouri river, to the rebels for want of water, as stated in the reports, and it was after accounts had been published in the newspapers stating that the rebels, when they retreated before the Union troops, had poisoned the springs and wells in Virginia, as I recollect. This was in the summer or fall of 1861.

Q. 19. Were there any other persons other than yourself and Col. Green present at the making of the statement by him?

A. I do not recollect. It occurred, I think, in Mrs. Emeline B. Reynolds' parlors on West Court street, in this village.

2020 Q. 20. Please state, further, whether that statement was the first knowledge or information you had received of such a process of obtaining water.

A. I do not think it was. I think I had heard it talked that Green had made that statement.

Q. 21. Did you hear it so talked just a short time before Green made the statement to you, and in such talk was the credit of that process of obtaining water given to Green; and, if so, how was it regarded?

A. It was but a short time before the conversation, if I heard it before, and when I heard it the credit of the notion was always given to Colonel Green, and it was talked among those I heard converse on the subject, about the time of my conversation with Green on that subject, that the scheme was a visionary one and impracticable. I entertained exactly the same idea and so expressed myself.

Q. 22. State, further, whether Colonel Green's description of the process for obtaining water was such that, assuming its practicability, you could have followed the description given in putting down a well by the process he described.

A. I could.

2021 Q. 23. Do you know how driven wells that are now commonly in use in the village of Cortland and elsewhere are made?

A. I do.

Q. 24. How do they differ from the process that Col. N. W. Green described to you in 1861, as you say, if they do differ?

A. The ordinary mode of putting down a well now is by driving an iron gas pipe having its lower end perforated with holes or slots and having a steel point with a shoulder on the upper end of the point, or near it, so that the point fits into the gas pipe which sets on the shoulder of the point, and driving the gas pipe thus perforated and pointed into the ground and into the water standing in the ground; then by attaching a common iron pump to the top of the gas pipe the well is made; but in localities where cobble-stones or other difficulties interfere with the driving of a gas pipe an iron rod is still used in the first instance and the hole made through these difficulties, and then the iron rod is withdrawn from the hole and the gas pipe with the perforated lower end and steel point is then inserted and driven to the necessary depth, and the pump then attached to the gas pipe at the upper end, and the well is made.

Q. 25. The second process that you have described, with the exceptions of the perforated point, was like the process suggested by Colonel Green, was it not?

A. The second process is like the process suggested by Green, except the steel point and the perforations in the lower part of the pipe.

Q. 26. What did Colonel Green say, if anything, at the time of this statement, as to his own belief of the practicability of the process for obtaining water?

2022 A. He said he was confident he could get water by the process he described.

Q. 27. State whether, after you heard the statement from Colonel N. W. Green and during the fall, the process of obtaining water in the way described by Colonel Green was a topic of conversation here in the community; and, if so, state to what extent it was publicly talked about, to your knowledge.

A. It was a topic of conversation here to some extent. I cannot say how extensively. He had gas pipes cut off so that they were five or six feet in length, so that they could be transported conveniently from place to place on their march and screwed together when wanted for use to make a well with. I saw the gas pipes so prepared on their way to the depot about the time the regiment left for Albany. I refer to Colonel Green.

Q. 28. How was the result of the experiment mentioned in proving the practicability of obtaining water by that process received here in the community as to its being or not a new process of obtaining water?

A. It was received as a new process of obtaining water and was a uniform surprise.

Q. 29. Who, so far as you know, was publicly conceded to be the originator or inventor of that process of obtaining water, and whose process was it called, in what you heard said of it during that fall and the following year or two?

A. N. W. Green; and it was called Green's process for getting water.

2023 Q. 30. Before the experiments were made for testing the practicability of Green's process of obtaining water his associates expressed their disbelief in its practicability. Please state which of his associates expressed their disbelief, so far as you remember.

A. They all did that I heard speak on the subject. I heard several, but cannot specify their names. I do not remember.

Q. 31. State the date of the arrest of Colonel Green for the shooting of McNett, as you have testified to the date of his being admitted to bail, and who his sureties were.

A. I cannot state either of those dates accurately without consulting the records. It was in the fall of 1861, I think, in the month of October, within a few days of the shooting referred to. Some fifteen or twenty names were on the recognizance. Most of the officers of the regiment signed it. I cannot remember the month, nor the day of the month. The recognizance, I think, was taken the next morning after the warrant was issued.

Q. 32. State whether you have knowledge of what Colonel Green did and how much he did, and what portion of his time was spent in the raising and organizing of the 76th regiment. If so, state what you know in these respects.

A. I have knowledge of the work he did in raising 2024 the 76th regiment; he spent apparently his whole time in raising and drilling the regiment, so far as I know, and attended to no other business.

Q. 33. State how the occurrence of the McNett affair affected the community here in point of excitement—whether it divided the people here into parties for and against Colonel Green in reference to the matter; and, if so, how generally the division prevailed through the village and county, and what the intensity of the feelings for and against were, and how long they continued with reference to the date of Colonel Green's trial on the indictment for the shooting of McNett in April and May, 1866?

A. The shooting of McNett occasioned a very high state of excitement in this vicinity and extending through the county; the Democrats were most all against Green, and it was rumored around that they would go to the camp and lynch him. They talked as though he ought to be hung. The rumor reached the camp and they sent to Truxton for the cannon which was there to protect themselves from an expected attack from those who wished to punish Green. A few Republicans sided with the Democrats in condemning the action of Green in the shooting. Green's friends talked loud and long in sustaining order in the camp and in arguing that the state of affairs at Camp Campbell, where the Seventy-sixth regiment was encamped, was bordering on a mutiny headed by McNett, and that McNett's refusal to obey Colonel Green's orders was done by McNett with a view of bringing on an open mutiny in the camp, and that in that emergency Green was justified in having his orders obeyed at the muzzle of the pistol. Everybody, man, woman, and child, were excited and took sides, to a large extent, in the controversy. There was no exception, so far as I observed. McNett had sent on charges against Green to Albany previous to the shooting. The result of it all was that Green was suspended from command and General Wood was sent here by the Governor to take 2025 command of the regiment; after the shooting took place, and while the excitement was at its highest point, Mr. Porter, a Democrat, then of Homer, called upon me in my official capacity and requested me to go to the Messenger House (it then was the Eagle Tavern), to which McNett had been removed after the shooting, and administer an oath to McNett for the purpose of issuing a warrant for the arrest of Green for the shooting of McNett; I told Mr. Porter it was not my business to issue warrants in such cases and take examinations, and that he should go before a justice of the peace, but that if McNett appeared before me and made complaint I would issue the warrant; Mr. Porter and Mr. McNett soon appeared before me in my office; I administered an oath to Mr. McNett and issued a warrant upon his affidavit for the arrest of Green; I was then informed by Mr. Green's counsel, Mr. Ballard, that Colonel Green would be at his house the next morning with some sureties to go on his bond for his appearance at court, and requested me to go up there the next morning and take his recognizance for the purpose of saving any ill feeling and the consequences which might result from bringing Green through the streets under arrest; a copperhead demonstration was expected against Green when he should be brought down in the custody of the sheriff through the streets; the next morning I went up to Green's house, at the north end of this village, and he and several others signed the recognizance; I then went from there on to Camp Campbell and other officers of his regiment there signed the bond, and I let him to bail upon that recognizance; the excitement continued until his trial in 1866; it would die down between the courts, but whenever the courts were held the fever seemed to be up; at every term of the oyer and terminer the indictment was pressed for trial by the district attorney and McNett's counsel, and during the time from when the indictment was found until the trial at every oyer and terminer it was sworn off by N. W. Green, or on his behalf, on the ground of the absence of the officers and men of his regiment, who were 2026 alleged to be necessary witnesses for Green on his trial, except, perhaps, one or two terms when he himself was absent in the service; I may be mistaken as to its being sworn off at every term, but that is my present impression.

Q. 34. Was the shooting of McNett followed by other controversies here involving Colonel Green, to your knowledge. If so, give such statements of them as you are able.

A. It was; he was sued by Elijah Wheeler for livery bill for teams used in going to and from Camp Campbell and the village by Green and his officers; he was sued in a justice's court in the town of Solon; when the trial day came on Green or some of his family were sick, so that he could not go without great impropriety; F. D. Wright, his counsel, was unable to go for some reason; judgment was taken by default; the case was appealed to the county court upon affidavits; Solon is nine or ten miles east of this place; all the parties resided here; I ordered a new trial in the case, setting the judgment aside, before a justice in this place, on a certain day; the justice in this place was named Stephen Brewer and the justice in Solon was named Samuel McGuire; the plaintiffs did not appear before the justice where I ordered it, and the suit went down; he was again sued by the same parties on the same account in the town of Homer; he had a litigation with Thomas G. Meacham for libel or libel and slander; Meacham was the Episcopal 2027 clergyman here in 1861; in the libel suit Green, from time to time, examined witnesses as they came home on furloughs from the army, and the papers showed that he drew up a portion of them himself. That suit dragged along in the courts until after his trial on his indictment. He also was obliged, in consequence of the shooting of McNett, to give bail at Albany before Judge Gould on account of an alleged irregularity in the first recognizance taken before me. The recognizance which I took was drawn up by Judge A. P. Smith, who had been a district attorney of the county of Cortland, according to my recollection. He also was compelled to appear before a court of inquiry held in Albany, and from there he went on, I think, with his regiment to Washington, and after being there a few months in command of his regiment he was suspended from command. Commissions were sent, I think, to various places in the South where his witnesses were supposed to be, but the witnesses being on the move constantly the commissions were not executed so as to allow the case to come on to trial till 1866 or 1867. He was in a controversy with the authorities at Washington and those at Albany from the time he was suspended until the time of his trial in regard to his being restored to his command and also in getting pay for his services, and he was engaged in making journeys to Washington and to Albany and in looking up the law as to his cases, the military law as to his being suspended and the law as to his criminal case and his libel case, and in consulting his lawyers about his different cases, I should say, the greater part of his time. He was also in a controversy with the Episcopal church here, where he was a member, before the bishop of this diocese on the complaint of Thomas G. Meacham, and the result of that was that he was expelled or excommunicated from the church. The minister (Meacham) had reprimanded him for the intemperate language he had used with reference to Democrats who sympathized with the rebellion, and Green said that if the Episcopal Church required him to call them anything but rebels—or to that effect—the church might go to hell.

Proceedings adjourned until Friday, August 13, 1880, at 9 o'clock a. m., at this place.

2028 FRIDAY, *August* 13, 1880—9 o'clock a. m.

Convened pursuant to adjournment.
Present: As before.

Examination of HIRAM CRANDALL resumed:

Q. 35. Was it stated on the appeals in the cases against Nelson W. Green decided before you and did it appear why Colonel Green was sued in the town of Solon, the parties having resided in this town? Please state what there was about it.

A. Wheeler and Terry were Democrats; Green was Republican; Solon was strongly Democratic and the justice there was strongly Democratic. The Democrats were violently opposed to N. W. Green after the shooting of McNett, and some Republicans also. Justice Brewer was Republican.

Q. 36. How frequently after Colonel Green's return to Cortland in 1862 down to his trial on the indictment in 1866 did you see and converse with him?

A. Very frequently; several times a week; nearly every day when he was here.

Q. 37. Did he resort to you for advice, legal or otherwise, under the difficulties surrounding him and growing out of the controversies spoken of?

A. I do not think he did resort to me for advice.

Q. 38. Did he resort to you to assist him in selling or mortgaging his property in order to raise money to carry on his defense in the several actions spoken of? If so, please state what was done.

2029 A. He resorted to me to assist him in buying the farm called the Etz place, where he lived in 1861, and also to assist him in raising money by mortgaging and selling his property to support himself and family and to carry on the litigation he was engaged in. The selling of the property was more particularly, I think, for the purpose of raising funds to carry on his defense of the indictment for shooting McNett. He deeded the property which he still owned in 1866 to H. J. Messenger. The money was placed, I think, in my hands by Messenger to pay off the mortgages which were on the premises. One mortgage, I think, was held by James A. Calvert, of this place, and one, I think, by the estate of David R. Hubbard, deceased, of which I was administrator. I am not positive as to the last-named mortgage. One mortgage was held by Green's brother; I cannot state his given name. He had been clerk or was clerk at the time of the county where he resided; I think his name was George, but am not positive. I corresponded with him, and my recollection is that the mortgage from Green to his brother was upon the property here, and also upon fifty acres of land, I think, in Livingston county, N. Y., on which an old lady had a life estate. Part of the Green mortgage to Green was paid up and the land here released from the mortgage and the fifty acres retained to secure the balance of the mortgage. The balance of the money, after paying these mortgages, was drawn upon me by Green as he desired.

Q. 39. The Etz place was the place at the carding-mill where the experiment was made, was it not?

A. That was part of what he bought of the Etz farm.

Q. 40. Green purchased that place prior to the fall of 1861, did he not, and did he buy any other property after that within the county or elsewhere?

2030 A. I do not remember at what time he bought it, but he was in possession of the house prior to the fall of 1861. He did not buy any real property in the county of Cortland or elsewhere that I know of after the Etz property.

Q. 41. About how many acres were there in the property that you sold where Colonel Green and his family had mainly resided here in Cortland from 1861 during his stay here?

A. I should judge there was somewhere between seven and ten acres of the land which I assisted him in selling to Messenger, but I may be mistaken as to the amount.

Q. 42. When was the place finally sold by Green for the purpose of raising money, as you have stated?

A. About October, 1866.

Q. 43. Can you state what it realized by the sale to Messenger over and above the incumbrances?

A. I am not certain that I can. The book in which I think had an account of this I cannot find, but on my cash book I find that on the 8th of November, 1866, I received on check from Messenger bank, in Green matter, six hundred and thirty-seven dollars and ninety-nine cents, which, I think, was the balance going from Messenger to Green after the incumbrances were disposed of and paid.

Q. 44. When were these mortgages on Green's place given, giving their dates and amounts?

A. The mortgage given by N. W. Green and wife to James A. Calvert was dated November 25th, 1862, for twelve hundred dollars, recorded November 25th, 1862, in the Cortland county clerk's office, covering fifty acres of land in the town of Springwater, Livingston county, N. Y., and also upon eight and one-half acres of land in Cortlandville, N. Y., including the dwelling-house occupied by Green in 1861. The second mortgage was given by N. W. Green to David R. Hubbard, dated 2031 October 25th, 1864, for eight hundred dollars, recorded October 26th, 1864, at 11 o'clock a. m.; it covered the same lands mentioned in the Calvert mortgage. The third mortgage was given by N. W. Green to George W. Green, dated February 20th, 1866, for fifteen hundred dollars, and covered the same land mentioned in the Calvert and Hubbard mortgages. The release by George W. Green of the eight and one-half acres in Cortlandville from the mortgage was dated October 13th, 1866, and recorded November 3d, 1866; it was acknowledged October 22d, 1866; the Calvert mortgage was discharged November 3d, 1866.

Q. 45. Out of the moneys realized from the sale of Colonel Green's property to Messenger was five hundred dollars paid to the brother of N. W. Green to apply on the mortgage on the Springwater fifty acres?

A. My recollection is that I sent him five hundred dollars to apply on the mortgage of George W. Green on both pieces, and the eight and one-half acres was thereupon released from that mortgage. The five hundred dollars was part of the Messenger purchase-money.

Q. 46. Had Colonel Green any other property except his household furniture that you know of at that time?

A. No; he had not, that I know of.

Q. 47. After Colonel Green returned to Cortland in 1862, state whether he mingled freely with the people here, as he had formerly been accustomed to.

A. He did not.

Q. 48. Do you know where what is known as Messenger Place was located from 1861 to 1866? If so, please state.

A. I do. It was situated on the west side of North Main street, in Cortland village, on the corner where Main street turned off toward the northwest, toward the carding machine, and it extended on the road towards the carding machine to Dibble's house lot, perhaps ten or fifteen rods from the turn, and extended south from the turn ten or fifteen rods and possibly twenty rods each way.

2032 Q. 49. And were you acquainted with Main street in this village and its extension north towards Homer up to and past the premises formerly owned and occupied by Colonel Green, on the easterly side of the street, being the premises upon which he lived at the breaking out of the war?

A. I was.

Q. 50. State whether there was, from 1861 to 1867, any sidewalk along the street from Green's house spoken of, on the easterly side of the street, down to the post office in the village? If so, state upon which side or sides along over that distance.

A. From Green's house southeasterly to the turn on the northeasterly side of the street, and south on the easterly side of Main street to where Grant street now is, and down nearly to the marble factory of Benjamin Brothers, there was no sidewalk in 1861 nor for several years afterwards. For the rest of the distance to the post office on the east side there was a gravel or dirt sidewalk in 1861. There never has been any sidewalk from Green's house down to the turn on the northeasterly side of the street up to this time, as I know of. From the turn down to Grant street there is not at this date and has not been much of a sidewalk. From Grant street down to the post office, on the east side of Main street, there is and has been for quite a good many years a walk of plank or stone; on the west side of Main street there has been a walk of gravel, plank, or stone from the corner down to the post office, I should say, since 1861. From the Messenger corner running northwesterly, on the south side of the street, in 1861, there was a graveled walk, but I do not think it was a gravel walk to the carding machine, but for a good many years there has been a plank or gravel walk from the corner to the carding machine.

Q. 51. Did Henry Bates and Henry Woodruff, during the years 1862 and 1863, own property situate on the easterly and northeasterly side of Main street, where you say there was no sidewalk at that time?

A. Mr. Bates did own where Mr. Woodworth now owns, north
of the turn. Mr. Woodruff lives now and did then south
2033 of the marble factory, and there may have been a sidewalk
there then; there probably was, of dirt or gravel, the same
as from that down to Mill street. I can only state these facts about
walks from my best recollection.

Q. 52. On which side of the street were foot-passengers accustomed to walk, from 1861 to 1866, from Green's house down to and past the Messenger place?

A. On the west side exclusively, I should say.

Q. 53. Do you remember that there was an experiment made by James Suggett in front of what is known as the engine house here, in 1863 or 1861, to make a well? And, if so, state what became of it, and whether it was abandoned or not.

A. I think there was an effort made, but it was not successful, and, I think, was abandoned; I cannot state what year it was put down. I am not certain it was made by Mr. Suggett. I am not clear on the subject of the first efforts there.

Q. 54. Do you remember of contributing something for a sword to Byron Mudge? And, if so, state whether it was done while he was an officer of the 76th regiment. Please state what there was about it.

A. I have a recollection that I did contribute something towards the purchase of a sword to be presented to Byron Mudge as an officer in the 76th Regiment of New York Volunteers.

2034 Q. 55. Did the men and officers of the 76th Regiment New York Volunteers have their uniforms while at Camp Campbell?

A. As a general thing they did, according to my recollection.

Q. 56. Were eminent counsel employed to assist the district attorney in the trial of Gol. Green's indictment, and was extraordinary efforts made on the part of the people in the trial of the indictment as well as on the part of the defense?

A. Yes.

Proceedings adjourned until 2 o'clock p. m.

2 O'CLOCK P. M.

Convened pursuant to adjournment.
Present: As before.

Examination of HIRAM CRANDALL resumed:

Q. 57. Were you acquainted with William Andrews, of Homer; was he a justice of the peace in 1862, and is he now deceased?

A. I was.

Q. 58. Are you somewhat acquainted with his handwriting?

A. I am.

Q. 59. I show you the docket of said Justice Andrews, kept by him in the year 1862, and refer you to the case of Wheeler & Terry against Nelson W. Green (Elijah Wheeler and James C. Terry), and ask you if the record of that case is in the handwriting of said justice.

A. It is, on pages 85, 112, and 116.

2035 Q. 60. Do you recognize that as the original docket of said justice?

A. I think it is.

Direct examination of this witness closed.

Cross-examination:

X Q. 60*a*. You stated on your direct examination that you became acquainted with Nelson W. Green on his first arrival here in this town; state how that was.

A. I became acquainted with him on his first arrival in this town.

X Q. 61. What led to your acquaintance?

A. I do not know any particular circumstance. I was a resident here and he came here and we became acquainted.

2036 X Q. 62. You met him frequently while he resided here in society, did you not?

A. I did.

X Q. 63. At what places?

A. At his house, at my house, and, probably, at other neighbors'. I do not remember now; also in the streets and in my office.

X Q. 64. Did you meet him occasionally at the residence of James A. Schermerhorn in this village, and at the residence of other persons in this village?

A. I did. I do not swear absolutely that I met him at other houses than James A. Schemerhorn's and those I have mentioned, but I think I did.

X Q. 65. Did these social meetings occur during the whole period of time he resided here in Cortland, from 1859 up to about 1867?

A. Yes; more or less.

X Q. 66. About how frequently did you meet him thus socially?

A. Once in a week or two at his house, my house, or some of the neighbors; that was so for a time until his troubles oppressed him and then I did not meet him so often, except at the houses of his particular friends—those who remained his friends after the shooting.

X Q. 67. What class of persons constituted his particular friends after the shooting?

A. They were Union people who did not condemn him for the shooting of McNett before his trial.

X Q. 68. Was not Green's failure to meet and mingle freely with the citizens of Cortland due in part to the fact that he had estranged and affronted many persons with whom he had been on friendly terms at one time by his intemperate language and harsh conduct?

A. Yes.

X Q. 69. At the time of the shooting of McNett by Colonel Green did you not understand that McNett was under arrest and in confinement in the guard-house at Camp Campbell or in his, McNett's, quarters in the camp, and that immediately preceding his arrest McNett had preferred charges against Colonel Green to the Governor or the military authorities of New York State, at Albany,
2037 and that McNett had disclosed to some person the fact of his making such charges against Colonel Green and that that person had informed Colonel Green of McNett's action in respect thereto, and that these facts and circumstances led to and produced the arrest of McNett by Colonel Green's orders?

A. I understood that McNett had obtained leave of absence to visit the place from which he came to obtain more men for the regiment, and that instead of going to Cattaraugus or Allegany counties for the men he went to Albany and preferred charges against Colonel Green, and that in a conversation between Green and McNett Green charged him with getting this leave of absence fraudulently, and ordered him to his quarters under arrest, and that then McNett refused to go and then the shooting took place.

Just previous to the last answer Hon. Milo Goodrich came in and continued his appearance for complainants in this case.

X Q. 70. McNett had been confined in some structure within the limits of Camp Campbell, under arrest, as you have stated, several hours at the time of the shooting took place; Colonel Green had ordered McNett to retire away from the door of the room in which he was confined, and he had refused to so retire, whereupon Colonel Green aimed his pistol and discharged it, the ball or missile therefrom striking the structure immediately over the door where McNett stood; that then Colonel Green repeated the order to McNett to retire, and, upon his not doing so, aimed his pistol at McNett and shot him, the ball striking him in the face; is not this so?

A. That is substantially the way I understand it.

X Q. 71. McNett was charged with no other offenses than that he had obtained a furlough upon the pretense of going home to recruit, and of employing the leave of absence thus obtained in going to Albany to prefer charges against Colonel Green, and had, after his arrest therefor, disobeyed the order of Colonel Green to retire from near the door of the place of his confinement, was he?

A. He was, as I understood it.

2038 X Q. 72. What other offense?

A. With inciting his men whom he brought here to mutiny, and that he was, at the time he was ordered back into his quarters, making signs and motions to his men; that he had met several times some of the copperhead element at the Eagle tavern here, with a view of a scheme for taking possession of the regiment and conspiring to turn over the regiment to the rebellion.

X Q. 73. That was the defense of Colonel Green to the indictment and upon his trial for the shooting of McNett, was it not?

A. It was one branch or so of the defense, as I understood it.

X Q. 74. Was there any other defense as you understood it?

A. I suppose there was.

X Q. 75. Was there any other defense upon the facts and upon the merits as you understood it?

A. There was the defense that he was not answerable to the civil law, but to the military law, and I suppose that would be a defense upon the merits as far as this indictment was concerned; I do not remember of any other defense upon the facts and merits.

X Q. 76. Was there any other defense upon the law, as you now remember; if so, state it?

A. I think there were two or three; one, I think, was an objection to the grand jury—that it was not properly constituted; I think another was that the proclamation of the sheriff for the holding of the court where the indictment was obtained had not been legally published; I am not positive that I have stated the grounds of these pleas in abatement correctly or not, but there were two or three pleas in abatement interposed to the indictment.

X Q. 77. What signs, if any, did McNett make to his men, and what men, if any, were discovered to have observed the signs made by McNett previous to the shooting? State what you know about it.

A. I know nothing about it.

X Q. 78. It was claimed, upon the trial of the indictment 2039 for the shooting of McNett, that McNett had winked in the presence of Colonel Green, and this was interpreted as a sign indicating his disloyal and infamous purpose of inciting a mutiny in the regiment; marching boldly through the lines of the Union troops at Washington into the lines of the rebel army in Virginia; is this not so?

A. I think not, alone.

X Q. 79. McNett subsequently entered the 151st New York State

Volunteers as a volunteer; served during the war with distinction; remained in the service until after the war had closed; lost an arm in the service, and was promoted for gallant and meritorious conduct upon the field, and finally became an officer of the Regular Army of the United States. Is this not so?

A. I do not know; part of it I have understood to be so.

X Q. 80. Which part of it have you understood to be so?

A. That he volunteered in a Union regiment, lost one arm in the Union service, was promoted, and afterwards went into the regular army.

X Q. 81. You stated on your direct examination that you were county judge of Cortland county from January 1st, 1860, to January 1st, 1868. During that period you were a member of the court of oyer and terminer, presiding judge of the court of sessions, judge of probate or surrogate, and county judge of the county of Cortland. The records of all these courts are or should be contained either in the county clerk's office of said county or the surrogate's office of the same, and these records are kept within five or six rods of the place where this examination is taking place. Is not this so?

2040 A. That is all so except as to the distance; it may be a rod or two more.

X Q. 82. You have testified on your direct examination respecting mortgages, deeds of conveyance of real estate, a release and discharge of mortgages. These are all subjects of records in the county clerk's office, situated within a few rods of this place, are they not?

A. Yes.

X Q. 83. There is a statute of the State of New York requiring justices of the peace to keep a book called a docket, in which the justices of the peace of the State are required to enter in writing the title of each civil cause, the service of process, the appearance of the parties, the pleadings, or an abstract thereof when the same are not in writing, the issuing of a *venire* for the summoning of a jury if any is summoned, and an abstract of all the other proceedings in a cause down to and including the judgment. Is not this so?

A. Yes.

X Q. 84. The statutes of this State also make such justice's docket or a transcript therefrom, duly certified, the only competent proof of the facts contained therein in the courts of this State. Is not this so?

A. No; not as I understand it.

X Q. 85. Will you please mention the exception?

A. I suppose that the papers which are mentioned in the docket (the original papers) could be introduced in evidence without being certified upon being proved to be such. I suppose, also, in case of the loss of a docket the substance of it may be proved by parole; I suppose the swearing of a witness in a justice's court may also be proved by parole; the papers filed in the cause may themselves be produced in evidence without the production of the docket or a certified copy thereof. The suit itself between the parties may also be proved without the production of a docket or a certified copy thereof. This is all I recollect at present.

X Q. 86. There is also a statute of the State requiring the docket of a justice of the peace, after the expiration of his term of office, or
after his death during his term of office, or at his resignation
2041 from office, or at his removal from the town in which he
held the office, to deposit the same with the town clerk of the
town wherein he was justice. Is not this so?

A. It is so.

X Q. 87. Will you swear positively that the trial of Colonel Green upon the indictment for shooting McNett was postponed at each term of the oyer and terminer in the county of Cortland from the time of the indictment, in 1861 or 1862, until he was finally tried upon the same, in 1866, upon the application of Colonel Green?

A. I am strongly impressed with the belief that that was so; I will not swear positively.

X Q. 88. Is it not true that the trial of Colonel Green upon said indictment was postponed upon the application of the district attorney for the prosecution on one or more occasions, and for the alleged reason that certain commissions for the taking of testimony for the prosecution had not been executed and returned, and upon the ground that Colonel McNett, the prosecuting witness, was absent engaged in the service of the United States Army in the field, and that other witnesses for the prosecution were similarly situated?

A. It may be so, but, if so, I have forgotten it; it was my opinion that the district attorney always pressed the indictment for trial at every term of the oyer and terminer.

X Q. 89. You have stated that you were a member of a committee appointed by the supervisors of Cortland county for the purpose of raising volunteers to fill the quotas of the several towns of the county except the town of Solon; the record of the appointment of that committee is a part of the record of the board of supervisors of the county of Cortland for the year 1864, the date of the appointment of the committee mentioned by you, and these records may be obtained and produced to prove that fact; is not this so?

A. I suppose it is so.

X Q. 90. You stated that you were also appointed commissioner by the Governor of New York to superintend the draft; have you
had a certificate of that appointment?
2042 A. I have had a certificate or notice of that appointment.
X Q. 91. What has become of it?

A. I think it is in my office; I have not looked for it.

X Q. 92. You also stated that you were the subcommittee to sell the town of Solon the surplus men the committee had enlisted after filling the quota of all the other towns of the county; was any record made of your appointment as such committee; and, if so, where was such record made and kept?

A. I think Delos McGraw was the secretary of this committee to raise volunteers; I think in his minutes would be found my appointment, but I do not remember.

X Q. 93. Did this committee mentioned by you, of which you were a subcommittee, make a report? If yea, to whom was the same made; was the same in writing, and where and in whose custody was the same deposited, filed, or kept?

A. The committee did report in writing to the board of supervisors, and after the report was made the proper place for the keeping of the same would be among the records and papers of the board of supervisors, in this village, within a few rods of this place.

X Q. 94. The appointments of guardians for minors enlisting in the Seventy-sixth Regiment N. Y. Vols., so called, and the proceedings had in relation thereto are all matters of record in the surrogate's office of the county of Cortland, situated in this village, within a few rods of the place where this examination is being held; is not this so?

A. Letters of guardianship and petitions granted by the surrogate should be filed in his office, but those granted by the county judge should be filed in the county clerk's office.

X Q. 95. How frequently did you meet with other citizens of the village at Squires' Hall for squad drill, as testified to by you. and whom did you observe there giving instructions in the capacity of drill-master? State fully.

A. I cannot state the number of times; I went as often as
2043 I could, and was drilled with other men until they went up to the fair ground; the men who controlled us were Heman F. Robinson, J. C. Carmichael, and Byron Mudge, who had charge of the squads.

X Q. 96. Were each of these several gentleman last mentioned by you prominent, and did they take an active part in the instruction of the citizens in military tactics and exercises then in vogue in this village, and did J. C. Carmichael subsequently enter and become lieutenant colonel of the 157th N. Y. Vols., and did Byron Mudge subsequently enter the 185th N. Y. Vols. as an officer in that regiment?

A. Yes; substantially as I understood it.

X Q. 97. In whose handwriting was the recommendation mentioned by you—signed by yourself and others—and upon whose solicitation or procurement did you sign the same, and by whom was the same signed besides yourself?

A. I cannot tell in whose handwriting the recommendation was, nor by whose procurement or permission I signed it; all I can say as to who signed it is from recollection; it was signed by the leading Union men of this village; the men I have in my mind as being active in it was Horatio Ballard, A. P. Smith, and N. W. Green.

X Q. 98. Did you understand that Col. Green desired you and others to sign the recommendation in question, and were it done in part in accordance with his wishes and at his solicitation?

A. I think so.

X Q. 99. You have stated that you were very frequently at Camp Campbell while the 76th regiment was stationed there; what was the occasion of those visits?

A. I went up to see the officers of the regiment and see how things looked sometimes, and sometimes I went up and appointed guardians for minors who were there without parent or guardian to consent to their enlistment so as to make it regular.

X Q. 100. Previous to and at the time of the shooting of McNett by Colonel Green none of the officers held commissions; is not this so?

A. That is so, unless the authorization of Green by the 2044 Governor of the State to raise the regiment could be called a commission; I think they did not have commissions; I do not know but they did have commissions, but my impression is they did not.

X Q. 101. Have you not been informed and do you not understand that the officers of that regiment held no commissions as officers of the regiment at that time?

A. I do not know that I have been so informed; all I can say further is that my impression is that their commissions had not come at that period.

X Q. 102. Do you know the date of what you term authority from the Governor of the State to Colonel Green to raise the regiment? If so, state what it was.

A. I do not know the date; the authority I spoke of was authority to establish and maintain the post at the fair grounds in addition to the authority to raise the regiment; that is the way I understood it.

X Q. 103. How did you obtain your knowledge of that authority, and from what source is it derived?

A. I think it is from evidence that I have heard on the trial of the indictment against Green and from what the officers and others have said; I think I have never seen the paper.

Proceedings adjourned until Saturday, August 14th, 1880, at 8.30 o'clock, a. m. at this place.

SATURDAY, *August* 14, 1880—8.30 o'clock a. m.

Convened pursuant to adjournment.

Present: D. L. Hurlbut, Esq., for complainants, and Irving H. Palmer, Esq., appearing specially, as before, for defendant.

Cross-examination of HIRAM CRANDALL resumed:

X Q. 104. Have you ever seen the docket number two, purporting to be the docket of William Andrews, an alleged justice of the peace, of the town of Homer, before the same was exhibited to you during this examination?

A. I think I have.

X Q. 105. Will you swear positively that you ever saw it?

2045 A. I will not.

X Q. 106. When, where, and under what circumstances do you think you saw it?

A. At Homer, at William Andrews' office, when I have been there to attend suits before him and to see him on other matters.

X Q. 107. Have you ever made any examination of the docket previous to the presentation at this examination so as to enable you now to swear that this is the same book or docket you saw on the occasions referred to by you?

A. I cannot remember that I have.

X Q. 108. Is it not quite possible that the book or docket you saw on those occasions was another and not this?

A. It is possible.

X Q. 109. You have stated on your cross-examination that you met Colonel Green in a sociable way between 1859 and 1867. Did you also meet him frequently upon the street and at your office during that period; were these meetings casual or business meetings? State how this was.

A. Both.

X Q. 110. Were the meetings at your office mainly of a casual or business character?

A. I cannot state of which kind of meetings there were the most. I do not remember.

X Q. 111. About how frequently did you meet Colonel Green during the period between 1861 and 1866?

A. Sometimes every day, when we were both at home in Cortland, and sometimes not so often.

X Q. 112. At these meetings was the war news and the general topics of the day the subject of general conversation and discussion; if so, to what extent?

A. Yes; to a large extent.

X Q. 113. From what source do you derive your knowledge of the relations of Heman F. Robinson, Byron Mudge, and J. C. Carmichael to the 76th regiment and to Colonel Green in the fall of 1861?

A. From Colonel N. W. Green's statements and Heman F. Robinson's, J. C. Carmichael's, A. P. Smith's, Charles P. Cole's,
2046 Horatio Ballard's, and officers and men of the 76th regiment
and others, and from statements in the newspapers, and probably from other writings which I may have read.

X Q. 114. Do you know under whose supervision the barracks at Camp Campbell were constructed?

A. J. A. Graham and, I think, Elijah Wheeler.

X Q. 115. Were not these barracks constructed under the supervision and direction, in whole or in part, of Colonel J. C. Carmichael?

A. They may have been.

X Q. 116. Do you recollect the examination taken in a case of interference pending in the Patent Office, to which Byron Mudge, James Suggett, and Colonel Green were parties, and was that examination taken and reduced to writing by you?

A. I recollect it, and it was taken and reduced to writing by me.

X Q. 117. Was that examination and interference in relation to the alleged invention of the driven well?

A. It was.

X Q. 118. When and where did you first hear Colonel Green mention the method of obtaining water by driving a rod into the earth and water standing therein, and withdrawing the bar and inserting a pipe in place thereof, and attaching a pump to the pipe, and who was present?

A. It was in this village; I think in Mrs. Reynolds' parlor, who lived where M. M. Waters now lives, on West Court street. It was in the summer or early fall of 1861, before the camp was established on the fair ground.

X Q. 119. How came yourself and Colonel Green to meet there on that occasion?

A. It was a place where Col. Green and myself visited oftener than at any other house at that time. Mrs. Reynolds was the widow of my former partner, Robert O. Reynolds. Green and she were active members of the Episcopal church of this place, and they were both strong Union people. The Episcopal church I refer to was usually called Grace church.

2047 X Q. 120. Do you intend to be understood by your last answer that you met Col. Green on the occasion referred to at a social party?

A. I do not; it was an accidental meeting on the part of Green and myself, and not by appointment or invitation.

X Q. 121. Who were present besides yourself and Col. Green, and who took part in this conversation?

A. I do not remember.

X Q. 122. Can you name a single individual who was present besides yourself and Col. Green?

A. I cannot.

X Q. 123. Is it your best recollection that others were present or not?

A. My best impression would be that there were other persons in the room, but I do not remember.

X Q. 124. Who comprised the family of Mrs. Reynolds at that time?

A. Mrs. Reynolds and her daughters, Catharine and Emma, and some boarders—I think, Mr. F. D. Wright, Dr. Munroe Frank, and perhaps some others.

X Q. 125. Do you remember, so as to be able to state, any other topic of conversation or anything else that was said on that occasion?

A. I do not.

X Q. 126. Will you swear positively that Col. Green mentioned the attaching of a pump to the top of the pipe after the same had been driven into water in the ground?

A. I think that was part of the statement; yes, I think I am positive of it.

X Q. 127. Col. Green was sworn before you in the interference before mentioned, was he not, and during his examination in that proceeding gave a description of the process for making a driven well as he then claimed to have invented it?

A. I believe so.

X Q. 128. Is it not possible that you have associated in your mind the description given by Col. Green of his alleged invention on that examination before you with the conversation between yourself and him at the residence of Mrs. Reynolds as to some of the details?

A. I may have done so.

2048 X Q. 129. Where did Col. Green live during his residence in this village?

A. He lived a portion of the time in a portion of a dwelling-house next south of the brick building now occupied by William Riley and then owned by Daniel Bradford, of this place, who then lived in the other portion of the dwelling-house referred to; the house stood on the site of the present Masonic Hall block. After that he lived in the dwelling-house on the Etz place, a little beyond the carding machine, on the road towards Homer; those are all the places I remember.

X Q. 130. Did he not live on the Etz place, opposite the carding-mill, before he lived in the house of Mrs. Bradford and when he first came to this place?

A. I think he did live in the Etz house before he lived in the Bradford house?

X Q. 131. Did he not live in the Bradford house from April, 1862, until some time in the summer or fall of 1863?

A. He may have done so; my best recollection is that he was living in the Bradford house in 1862; I cannot tell when he went there or when he left, but in 1861 he was living in the Etz house.

X Q. 132. What business was Colonel Green engaged in aside from that connected with the raising of the 76th regiment while he lived in Cortland, if any?

A. Prior to commencing raising the regiment I think he was studying law with Judge Smith, and the buying and selling of the Etz place, prosecuting his libel suit against Thomas G. Meacham, trying to get reinstated in his office as colonel of the 76th regiment, defending himself on the indictment and on the different suits commenced against him, raising money by mortgaging and selling his real estate, studying up his cases, and consulting with his lawyers and friends, visiting Albany, Washington, and George R. Green's residence, out in the west part of the State, in relation to his money difficulties, and his indictment and the other suits make up about all I know of his occupation while he was here; his church difficulties also occupied a portion of his time.

X Q. 133. Did he pursue any trade, profession, or avocation while he lived in Cortland; if so, what, and for what time? 2049

A. Aside from what he did in the law office of Judge Smith, before the raising of the regiment, I know of no profession or avocation which he followed except as colonel of the 76th regiment.

X Q. 134. Did he not, after his dismissal from the army, apparently have considerable leisure time at his disposal?

A. No; I do not think he had any; he was continually occupied, as far as I knew, in preparing for his trials and in his efforts to get restored to command.

X Q. 135. He was never actually in the service after his dismissal therefrom June 2d, 1862, was he?

A. I think he was never recognized by the higher authority to be in the service after June 2d, 1862, and I think was never in actual service after that time that I know of.

X Q. 136. How many suits in justices' courts had he, that you know of, from June, 1862, to 1867?

A. I am not certain that he had any; the Perry & Wheeler suit was one; there may have been one other after June, 1862, for a stove used at Camp Campbell, but I cannot say but that it was before June, 1862.

X Q. 137. About how much time do you say he employed in defending these two suits in justices' courts?

A. I do not of my own knowledge know that he spent any.

X Q. 138. How much time should have been expended in the preparation for trial of these two suits in justices' courts?

A. I do not know how long it would take; there was a question in those cases unfamiliar to the profession here, and that was whether an officer authorized by the State to raise a regiment was individually liable for property purchased or hired for the use of the regiment, or whether the State was liable for his contracts, as the agent of the State, and it might require a considerable time for a person to ascertain what the law was on that point, and to arrange the authorities and to collect them together in proper shape, to properly defend himself in the trial of such a case.

2050 X Q. 139. He employed able and experienced counsel, whose duty it was to have prepared the defense on the questions of law you have mentioned, was it not?

A. He did employ able and experienced counsel to try the case; and if they were employed to ascertain the law of the case, in my judgment it would be their duty to make a brief on the subject; but in the case of N. W. Green he did not have an abiding confidence in any counsel that he ever employed that I am aware of, and it was his practice and habit to examine the legal questions in his cases for himself, because he was unwilling to trust his lawyers; he was afraid they would leave him to his adversaries or go back on him.

X Q. 140. You do not know of your own knowledge that he prepared his own defense in these two suits, do you?

A. I do not.

X Q. 141. What you have stated in answer to question 139 is derived as an inference from your knowledge of the character of Colonel Green and from your knowledge of these cases, is it not?

A. It is not entirely; I know the fact that he made briefs and studied up the law upon the questions and difficulties in which he was involved, except in the justices' court cases.

X Q. 142. Did you see any briefs made by him in these cases in justices' court, and was any made by him to your knowledge?

A. I did not see any brief, and none was made to my knowledge in these cases in justices' court.

X Q. 143. From the time of Green's indictment for shooting of McNett until the close of the war, in April, 1865, McNett, the prosecuting witness, and other witnesses for the prosecution, as well as some of those for the defense, were absent in the army in the field, and their attendance could not be procured at the several terms of the court of oyer and terminer held in and for the county of Cortland, at which the indictment was triable, and the same was postponed from term to term on that account; is not this so?

A. That is partially so, except that McNett was in at-
2051 tendance at several of the terms of oyer and terminer, on furlough, as I suppose, and some of the witnesses were here at one oyer and terminer and some at another, but not all at one time. All the witnesses on both sides were never here at one term of the court so that the trial could go on until the case was tried, I think, in the spring of 1866.

X Q. 144. On how many different occasions will you swear positively McNett was present as a witness at the oyer and terminer after the indictment and before the trial?

A. I do not want to swear positively that he was here at any of them. My impression is that he was here at the North, where he could be reached by telegram if the case should be set down for trial.

X Q. 145. Were you present at any court of inquiry, held either at Albany or Washington, convened to investigate charges against Colonel Green for the shooting of McNett, and have you any personal knowledge of such court or courts?

A. No.

X Q. 146. Were you present on any occasion when Colonel Green gave bail before Judge Gould, at Albany, upon the indictment against him for the shooting of McNett, and have you any personal knowledge of the giving of such bail?

A. I was not present at the giving of bail by Colonel Green before Judge Gould, at Albany, on the indictment for the shooting of McNett, but I think I have seen the papers at the clerk's office of Cortland county, taken on that occasion, but I will not swear positively to that.

X Q. 147. The giving of bail before Judge Gould, at Albany, by Colonel Green was occasioned by an alleged defect in the recognizance, and did not necessarily occupy much time, did it?

A. It would not necessarily.

X Q. 148. Were you present at any court convened by the Episcopal church for the trial of Colonel Green for any alleged miscon-
duct in any way connected, directly or indirectly, with the
2052 shooting of McNett, or proceedings before the bishop of this
diocese in relation thereto, or have you any personal knowledge thereof?

A. No.

Proceedings adjourned until 1.15 o'clock p. m.

1.15 O'CLOCK P. M.

Convened pursuant to adjournment.
Present: As before.

Cross-examination of HIRAM CRANDALL resumed:

X Q. 149. Was there any other occasion than that which you have stated as taking place at the residence of Mrs. Reynolds in this village when Colonel Green described to you or in your presence the process of making a driven well? If, yea, state when and where it was and who was present.

A. I do not remember distinctly of any other occasion.

X Q. 150. On your direct examination you spoke of an occasion when you were going from the village to Camp Campbell, when you saw J. C. Carmichael's horse and wagon, with some articles in it, in the road near Green's residence, nearly opposite the carding-mill, and at the same time you say you saw J. C. Carmichael, Heman F. Robinson, and Byron Mudge engaged in erecting a structure. Describe that structure and the articles you saw in that wagon.

A. My idea is that then there were two upright pieces of scantling, and one across the top of them, in the rear of the house where these men were. That was my idea of the structure referred to. It seems to me that in the wagon there was a tin liquor pump or something like one, and a stick or two of scantling, and perhaps a crowbar. I am not positive.

X Q. 151. Did you stop or halt on that occasion?

A. I did not, that I remember of.

X Q. 152. Which direction from Green's residence was this structure, and what was being done about this structure?

A. It was north of the house, according to my recollection. I do not know what they were doing about the structure; they seemed to be putting it up, I should think.

2053 X Q. 153. Was not the structure in a northwesterly direction from the house?

A. It may have been; I cannot remember.

X Q. 154. State anything more that you observed about the structure, the articles in the wagons, or what the gentlemen mentioned by you were doing on that occasion.

A. I have told all I now remember.

X Q. 155. You stated on your direct examination that you have — informed that Carmichael, Robinson, and Mudge had been detailed to make an experiment at that place. What was the source of your information?

A. I think I was informed when I got up to camp that they were trying to get water under Green's notion, and that Green had detailed them to experiment and see if it could be done. My source of information was from some of the officers of the regiment. I cannot name the person or persons who informed me.

X Q. 156. Will you swear positively that you obtained this information at the camp on your arrival there, and may it not have been acquired subsequently and from another source?

A. I think I got information at the camp on that occasion. I will not swear positively as to that. It is possible that I may have acquired it subsequently from some other source. I think I afterwards talked with Carmichael, Robinson, and Mudge about what they had done.

X Q. 157. You have stated that afterwards you inspected a driven well on the fair ground. Describe what you saw of that well.

A. I think there was a gas pipe in the ground inside of a metal pipe; I think a zinc pipe with a pump on top of the gas pipe, attached so that water was pumped from it while I was there, according to my recollection.

X Q. 158. Will you swear positively that the interior pipe mentioned by you was a gas pipe, and of what material was it made?

A. If a gas pipe it was made of iron. I will not swear positively it was a gas pipe.

X Q. 159. Will you swear positively that the interior pipe was not an ordinary lead pipe?

2054 A. I will not.

X Q. 160. About what was the diameter of the exterior or zinc pipe? State also about the diameter of the interior pipe.

A. I should think the exterior pipe was about an inch and a half in diameter and the interior about an inch.

X Q. 161. Did the interior pipe fit loosely within the exterior pipe?

A. I should think it did.

X Q. 162. When was it, with reference to the time you saw Mudge, Carmichael, and Robinson engaged with the structure northerly from Green's residence, that you saw the well mentioned by you?

A. I should think it was within two or three weeks after.

X Q. 163. Describe the pump you saw attached to the interior pipe.

A. I think it was the ordinary patent iron pump.

X Q. 164. How were you enabled to see the pipe to which the pump was attached and the exterior pipe surrounding it?

A. By looking at them, I suppose, and examining them. It was in the daytime.

X Q. 165. Was there a platform or support to which the pump was also fastened or upon which it rested?

A. I do not remember of seeing any platform.

X Q. 166. Was the pump an ordinary cast-iron pitcher-spout pump cast with a flange upon the bottom, with arch-shaped openings above the flange and below the cylinder of the pump, through which might be seen the pipes employed in the construction of the well?

A. I do not remember.

X Q. 167. Is not the pump described in the above question the form of pump usually used at that time for a cistern pump?

A. I do not remember.

X Q. 168. Who was present on the occasion when you saw this pump and well?

A. I do not remember.

2055 X Q. 169. Was the well exhibited and its construction explained to you by any person on that occasion? State your best recollection.

A. I have an impression that Julius A. Graham was there, but I am not positive.

X Q. 170. State the language or its substance of anything you heard said by any person present at the time when Colonel Green first described the process or method of obtaining water by means of a driven well; I mean other than Colonel Green.

A. I told him I did not think it was a practicable idea of getting water in that way; I do not remember of anything that anyone else said, except Green and myself.

X Q. 171. Do you now recollect anything said by any person other than yourself or Colonel Green on the subject of driven wells prior to the year 1864? If yea, state by whom it was said and what it was?

A. I heard several talk on the subject, but I do not remember who they were nor what was said.

X Q. 172. Can you remember any place or occasion when anything was said on that subject? If so, state the place or occasion.

A. I cannot remember.

X Q. 173. Did you not hear of the construction of a driven well by James Suggett for George N. Copeland, of this village, in the cellar of the grocery store then occupied by him, and was not said well a topic of conversation in this community at the time and soon after its construction?

A. I think I did hear of that well in the cellar. I do not remember of any discussion; I do not remember of any conversation on the subject.

X Q. 174. Will you swear that you did not, during the fall and winter of 1862, hear this well made a topic of conversation in this community?

A. I will not.

2056 X Q. 175. Did you not hear of the construction of a driven well by Byron Mudge upon the premises of James A. Schermerhorn in the spring, summer, or fall of 1862, and was not said well a subject of discussion and conversation in this community at that time?

A. I do not remember that it was; I do not remember that I ever heard of it. I did not know till now that he had a driven well on his premises; I may have heard of it, but if I have I have forgotten it.

X Q. 176. Did you not hear of the construction of a driven well upon the premises then occupied by Cornelius Brown on Port Watson street, in this village, by James Suggett, assisted by others, in the spring, summer, or fall of 1862; and was not said well, at the time of its construction and afterwards, a topic of conversation in this community?

A. I do not remember.

X Q. 177. Did you not hear of the construction of a driven well by James Suggett on the premises then occupied by Myron H. Mills, in 1863, as a hardware store, situate on Main street, in this village, and was not said well a topic of conversation in the community?

A. I do not remember.

X Q. 178. Did you not hear of the construction of a driven well made by Byron Mudge on the premises owned and occupied by Henry Bates at the head of North Main street, in this village, in 1863 or 1864, and was not said well, at the time of its construction and afterwards, a topic of conversation in this community?

A. I do not remember it now.

X Q. 179. Did you not hear of the construction of a driven well made by Byron Mudge on the premises of Henry Woodruff on North Main street, in this village, about the year 1862, and was not said well, at the time of its construction and afterwards, a topic of conversation in this community?

A. I know about that well; I was there, and saw them at 2057 work at it; in 1861, I think, it was; it was not a success at that time, and I am not aware that it has since been made a success; not that I remember.

X Q. 180. Was it in process of construction at the time you saw it?

A. It was.

X Q. 181. Who was then at work at it?

A. James Suggett and Byron Mudge are the only persons that I remember of; there may have been another man assisting when I saw them.

X Q. 182. State when it was, as near as you are able, that you saw Mudge and Suggett at work constructing this well.

A. It was in 1861; I should think in September or October.

X Q. 183. Have you ever been upon the spot where this well was being constructed since that time? If so, state when it was.

A. I never have.

X Q. 184. Where was your residence in 1861 and 1862, with reference to the residence of James A. Schermerhorn, with reference to the grocery store of G. N. Copeland, with reference to the coffee-house of Cornelius Brown, situate upon Port Watson street, before mentioned; with reference to the hardware store of Myron H. Mills. with reference to the residence of Henry Bates, at the head of Main' street, in this village; with reference to the residence of Henry Woodruff, on North Main street, in this village, and with reference to the planing-mill of Reed Peck or Peck & Mudge, on Railroad street, in this village?

A. In 1861 and 1862 I lived first at the Eagle Tavern, corner of Main and Port Watson streets, until that was burnt down; then I lived with Mrs. Reynolds, on West Court street, and then at the Eagle store, corner of Main and Tompkins streets, moving into my present residence, number 9 or 10 South Main street, in October of 1862, where I have resided ever since; James A. Schemerhorn's residence joins my residence on the south; his house is about ten or twelve rods from mine; Copeland's grocery store is about fifteen rods north of my residence, on Main street; Cornelius Brown's place, on 2058 Port Watson street, is forty or fifty rods southeast from my residence; Mills' hardware store was about twenty rods north of my residence, on the west side of Main street; Henry Bates' house was nearly a half mile north from my residence; Henry Woodruff's was about seventy or eighty rods north of my residence, on the same side of Main street, and the planing-mill, I should say, was about a hundred rods east of my residence.

X Q. 185. Did you not hear of the construction of a driven well made at the planing-mill of Peck & Mudge or of Reed Peck, situate on the south side of Railroad street, near the Syracuse, Binghamton and New York railroad depot?

A. I heard or understood that they were trying to drive a well there at one time, but I do not know with what success.

X Q. 186. Were you informed that the well was constructed to supply water to the boiler connected with the engine which supplied the motive power for propelling the machinery used in the planing-mill?

A. I do not remember that I ever heard for what purpose the water was to be used.

X Q. 187. Did you see a well in process of construction by James Suggett in 1863 in front of the engine-house, in this village?

A. I think I saw him making a well at one time there; I cannot tell the year; there have been several attempts made there, and I have got them slightly confused, but I think the first man I saw there was James Suggett; Brewer and Winters worked there later than the time mentioned in the question.

X Q. 188. Describe what you saw.

A. He undertook to drive a rod or pipe—it may have been both—to make a driven well, but did not succeed in getting water.

X Q. 189. What was the diameter of the pipe which you saw him driving?

A. I cannot remember distinctly, but I have an impression that it was larger than the pipe commonly used in putting down these wells; I think it was an inch and a half or two inches.

2059 X Q. 190. May it not have been as large as four inches in diameter?

A. It may have been, for aught I know; I cannot remember.

X Q. 191. Was not the hand fire engine connected or attached to that pipe after it was driven, and was not water pumped therefrom with said engine on several occasions?

A. I do not remember.

X Q. 192. Will you swear positively that water was not pumped from said pipe with the hand fire engine after the pipe was driven?

A. I will not.

X Q. 193. What tools or appliances were used in driving this pipe? Please describe the same.

A. I think an iron rod and a gas pipe and an iron sledge.

X Q. 194. Was not a contrivance constructed and operated after the manner of a pile-driver also used in driving this pipe, and was not the same a conspicuous object upon the street?

A. Not that I remember, in the case of Suggett.

X Q. 195. Will you swear positively that such an appliance was not used in driving this well?

A. I will not.

X Q. 196. Do you not recollect an occasion when such a machine stood for several days at or near the spot where this pipe was driven?

A. I do not remember.

X Q. 197. When Colonel Green lived in the house with Daniel Bradford, which stood upon the site occupied by the present Masonic Hall block, was not the spot where this pipe was driven in front of the engine-house in plain view of that residence, and what was the distance from said residence to the place where said pipe was driven?

A. I should think it would be ten, twelve, or fifteen rods from the place, and the ground was nearly level, and there was no obstruction, unless it was the shade trees, between the two points.

2060 X Q. 198. Do you recollect whether shade trees were so situated as to obstruct the view between the two points?

A. I think they would some.

X Q. 199. Where was the post office in this village situated in 1862 and for several years thereafter?

A. I think it was where the gas company's office now is, on Court street, in the Schermerhorn block or in the rear thereof.

Proceedings adjourned until Monday, August 16th, 1880, at 10.30 o'clock a. m., at this place.

MONDAY, *August* 16, 1880—10.30 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of HIRAM CRANDALL resumed:

X Q. 200. Was not the direct and usually traveled route from the Bradford residence, where Colonel Green resided in 1862 and 1863, to the post office directly past and within a few feet of the well constructed by James Suggett in front of the engine-house, in this village?

A. It was; he could have crossed the street before reaching the engine-house and gone down on the other side of the street; one way would have been just as direct as the other.

X Q. 201. At that time there was a cross-walk across Main street at its intersection with Court street, upon which the post office was situated, was there not?

A. I think there was.

X Q. 202. Was there any other cross-walk across Main street between its intersection with Court street and Mill and Cortland streets at that time?

2061 A. I am not positive, but I think there was one up near Bradford's bookstore and Graham or Burst's store, where the Garrison block now stands; I think, if there was one, that it was nearly in front of Bradford's store, near Riley's fish market and grocery.

X Q. 203. Was there any other cross-walk as convenient for pedestrians going from the Bradford residence to the post office as that which crossed Main street at its intersection with Court street?

A. Probably not; I should say not.

X Q. 204. How wide or about how wide was Main street in front of the engine-house at that time?

A. I should say six to eight rods.

X Q. 205. How wide was it between the sidewalks?

A. From four and one-half to six rods, I should judge; perhaps not over four rods.

X Q. 206. About how far was it from the Bradford residence to the post office, where it was situated in 1862?

A. Thirty to forty rods, I should judge.

X Q. 207. Where did Col. Green reside after removing from the Bradford House?

A. I think he went back to the Etz place, near the carding-mill.

X Q. 208. You stated on your direct examination that there was no sidewalk from 1861 to 1867 from the place of Green's residence, near the carding-mill, on the northeasterly side of the street and south on the easterly side of Main street, to nearly where the marble factory of Benjamin Brothers now is; was there any sidewalk on either side of the street at the time mentioned? State fully how that was.

A. I think there was a sort of a gravel walk on the west side.

X Q. 209. Was there a plank road running past the Etz place, where Col. Green resided, down to nearly opposite the Cortland House at that time?

A. I think there was.

X Q. 210. Did this plank road lead past the premises of Henry Bates, situate on the northeasterly side of Main street, at that time; if yea, how near did the plank road run to the house of Bates?

2062 A. It did; at the distance of two or three rods.

X Q. 211. Would not a pedestrian coming from the Etz place, where Col. Green resided, down into the business part of Cortland village and to the post office, usually walk upon the plank road or the gravel walk mentioned by you on the southwesterly and west side of Main street?

A. Yes; I think he would.

X Q. 212. How near to the house of Bates would this route take him?

A. From three to six rods, I should think.

X Q. 213. On your direct examination, in response to question 27, you described some of the materials prepared for the construction of the driven well to be taken with the 76th regiment; were there not also zinc pipe, constructed like a stove pipe in lengths, made of sheet zinc, prepared to be taken with the regiment for this purpose?

A. I do not remember of seeing anything but the gas pipes.

X Q. 214. In whose charge or custody was this gas pipe at the time you saw it?

A. I think it was in John H. Rollo's charge; it may have been some other Rollo.

X Q. 215. This Rollo was a relative of Byron Mudge, was he not?

A. I think so.

Proceedings adjourned until 1.15 o'clock p. m.

1.15 O'CLOCK P. M.

Convened pursuant to adjournment.
Present: As before.

Cross-examination of HIRAM CRANDALL resumed:

X Q. 216. You stated, on your direct examination, that the result of the experiments at or near Green's residence, near the carding-

mill and upon the fair ground, sometimes called Camp
2063 Campbell, was received in this community as a new process
of obtaining water and was a uniform surprise; whom do you now remember to have given expression to such thoughts or ideas?

A. I did myself; I do not remember now the names of any other persons who thus expressed themselves.

X Q. 217. Can you now mention any time or place where you heard such thoughts or ideas expressed after these experiments which you have mentioned?

A. Cortland village was the place where I heard surprise expressed. I frequently heard it from time to time from the time the wells were put down and for years afterwards. I cannot be specific as to times.

X Q. 218. Can you be any more definite as to the place?

A. I cannot, except that without doubt a portion of the remarks I heard in my office.

X Q. 219. Will you swear positively that you heard such remarks in your office?

A. I will not.

X Q. 220. Do you know anything of the intensity of excitement produced by the shooting of McNett by Green at or near the time of its occurrence other than was manifested in Cortland village?

A. Yes; I think I knew something about it.

X Q. 221. State the source of your information on the subject.

A. I heard the remarks of people who came into Cortland from different parts of the county and beyond the county on the subject of the shooting of McNett by Green.

X Q. 222. Was there any demonstration or attempt to use personal violence against Col. Green on the part of any one, so far as you know, as a result of that excitement?

A. Col. Green's barn was burned near his house; that might be considered a demonstration, perhaps.

X Q. 223. Did not the burning of Col. Green's barn occur after his trial in 1866, and about five years after the shooting occurred?

A. It may have been so. I do not remember whether it was before the trial or afterwards; it was claimed by Green and his
2064 friends that it was set on fire by Green's enemies; there was
no proof of that fact, to my knowledge.

X Q. 224. Was not the barn of Josiah P. Ingraham, a prominent Democrat and an opponent of Col. Green and a member of the Episcopal Church, or a member of the congregation of which Col. Green was also a member, burned shortly after the burning of Col. Green's barn, and was it not claimed at the time to have been burned by Col. Green or his friends, and was there not as much proof of the one as of the other?

A. Mr. Ingraham's barn was burned soon after Green's barn was burned, and it was claimed by Green's enemies that Green's friends burned it. I never heard it charged upon Green himself, as I know of, but it might have been. I never heard of any proof having been discovered as to who burned either barn.

X Q. 225. Was not a subscription circulated in this community by Col. Green's friends shortly after the burning of his barn to raise money wherewith to rebuild the same, and was not a large sum of money raised in this community by subscription for the alleged purpose of erecting a new one in the place of that which was burned, and did not Col. Green receive a considerable sum of money thus raised?

A. A subscription paper was circulated and subscriptions were obtained upon it to aid in building a new barn or to assist in making up the loss to him on account of the barn having been burned, but how much the subscription list amounted to or how much Col. Green received of it I do not remember.

X Q. 226. Did the opponents of Col. Green resort to any measures except to procure his arrest upon the warrant and the indictment and resort to such remedies as the law provided?

A. They, in addition to procuring his arrest upon the warrant and his trial under the indictment for the shooting of McNett, sought to procure his removal from the command of the 76th regiment and also to turn him out of the church.

2065 X Q. 227. Was Col. Green removed from the command of the 76th regiment and was he expelled from Grace church, Cortland?

A. Yes.

X Q. 228. Stephen Brewer, the justice of the peace before whom you ordered a new trial after setting aside the judgment granted against Col. Green by Justice McGuire on default, was a staunch Republican and an adherent of Col. Green's, was he not?

A. He was a Republican when not an abolitionist. Whether or not he was an adherent of Col. Green's I do not remember. He was a justice whose office was within forty rods of the plaintiff's residence and within half a mile of the defendant's and was in the same town where all the parties resided.

X Q. 229. Were the relations existing between the plaintiffs in that action and Justice Brewer friendly or otherwise? State, if you know; I mean at that time.

A. I never knew that there was ever any but friendly relations between Stephen Brewer and the plaintiffs in that action.

X Q. 230. Will you say that they were not then on unfriendly terms?

A. I think they were not. I have no reason to suppose that they were.

X Q. 231. Who were the attorneys for the respective parties in the action brought by Col. Green against Thomas G. Meacham for libel or libel and slander?

A. I think it was M. M. Waters and F. D. Wright, of the firm of Waters & Wright, for Col. Green; I do not remember who Thomas G. Meacham's attorney was.

X Q. 232. Was not that action withdrawn by Col. Green after his trial upon the indictment for the shooting of McNett?

A. I do not know whether it was withdrawn or settled. It was never tried. It was discontinued by an agreement at the same term of court at which a *nolle prosequi* was entered in the indictment, after the trial and the disagreement of the jury.

X Q. 233. Justice McGuire, before whom the action was brought by Wheeler and Terry in Solon, although a Democrat, was a 2066 member of the 10th regiment of New York Volunteer Cavalry, in which he was a volunteer, and was wounded in the service and honorably discharged, was he not?

A. I do not know.

X Q. 234. Have you not been so informed?

A. I have been informed that he was in the service. As to the other things stated in the question, I do not know that I have been.

X Q. 235. You have stated on your direct examination how Colonel Green was employed during the period of time between June, 1862, and 1866. What portion of this time was his time most completely occupied by affairs which resulted from the shooting of McNett?

A. I do not know that there was any difference up to the time of his trial on the indictment. His mind seemed to be entirely taken up with his difficulties.

X Q. 236. Was he not more completely occupied at and for two months before his trial on the indictment than during any other portion of this period?

A. I do not know that he was. His mind seemed to be occupied all the while with his lawsuits, including the indictment; with his efforts to get reinstated in command and procuring counsel and watching them to see that they kept loyal and true to him; examining the law in relation to these matters, and in procuring money to defray the expenses of his suit and supporting his family. He seemed to be unable to talk on any other subject except his troubles and seemed to be pretty near insane on the subject of his difficulties.

X Q. 237. Can you state how much money passed through your hands as the avails of loans made and the sale of Green's property? If yea, state fully in relation thereto.

A. There was eight hundred dollars from David R. Hubbard and five hundred of the fifteen hundred dollars which George W. Green lent him passed through my hands by my sending it to George W. Green to get the land here released from the mortgage when he finally sold it to Messenger; but this five hundred was not handled by me until October or November, 1866. Twelve hundred 2067 dollars of the Calvert loan passed through my hands and six hundred and thirty-seven dollars and ninety-nine cents of money received from Messenger on the sale of the eight and one-half acres, which would make in all a little over thirty-one hundred dollars, of which twelve hundred and interest was paid to James A. Calvert to satisfy the Calvert mortgage, and eight hundred and interest was paid to David R. Hubbard or his estate to pay up the Hubbard mortgage, and five hundred was paid to George W. Green upon his fifteen-hundred-dollar mortgage to get the eight and one-half acres here released, and six hundred and thirty-seven dollars and ninety-nine cents I paid to or for N. W. Green according to his direction.

X Q. 238. What was the consideration of the sale by Green to Messenger?

A. I do not know that I can tell; I think it was thirty-five hundred dollars.

X Q. 239. Was not the natural and usually traveled route from the residence of Col. Green, near the carding-machine, to the post office and business part of the village past the residence of Henry Woodruff, on the east side of Main street, crossing main street at its intersection with Merrick street? I refer to the time from the year 1861 to the year 1866?

A. I do not think there would be much, if any, difference between the east and west sides of the street.

X Q. 240. Was not the walk usually the best over the route mentioned in question 239, and was not the walk poor past the Cortland House, and was it not frequently obstructed by teams and vehicles in front of the Cortland House?

A. I never have discovered any difference, that I remember of, between the walks on the east and west sides of the street; in front of the hall of the Cortland House teams would be driven up to load or unload customers or guests of the house from time to time; when teams were standing there foot passengers were in the habit of passing onto and over the length of the piazza of the Cortland House.

2068 X Q. 241. Was not the main portion of the business part of the village situate on the east side of Main street from 1861 to 1866, and was not Main street south of the Cortland House wider than Main street north of the Cortland House, making a jog or angle of the Cortland House, on the west side of Main street, of some twenty feet, rendering the walk on the west side of the street less convenient and less frequently used from Merrick street south than that upon the east side of Main street at the time above mentioned?

A. The most of the business was done then on the east side of Main street; there was a jog at the Cortland House; Main street was wider south of the Cortland House than it was north of the Cortland House, but most of the jog or angle which a passenger would describe in passing on the west side south by the Cortland House on the ground was occasioned by the projection of the piazza and front steps of the Cortland House; to the east of the Cortland House eight or ten feet of the jog was occasioned by said piazza and steps; I think the steps and piazza occasion less than half of the jog; as to the convenience for a person north of the Cortland House who had business to do on the west side of Main street I think it would be the most convenient for him to stay on the west side of Main street; if a person had business to do on the east side of Main street I think it would be most convenient for him to cross to the east side at Merrick street and go down.

X Q. 241½. You stated on your direct examination that Col. Green was publicly conceded to be the inventor of the process of obtaining water by means of a driven well about the year 1861. State the name of any person whom you heard state, in substance, that Green was such inventor, the place where you heard the statement made, and who was present.

A. I cannot.

X Q. 242. Did you not hear it frequently stated in this community, during the period from 1864 to 1867, that Byron Mudge was the inventor of the method of obtaining water by means of a driven well, and was not the credit of the invention quite generally claimed for Byron Mudge in this community at about the time mentioned?

2069 A. I do not think it was; I heard Mudge was driving these wells, but I did not hear that he was the inventor; it was understood to be Green's conception or invention.

X Q. 243. You stated on your direct examination that testimony was taken before you in the suit of Col. Green against Thomas G. Meacham; did Green appear before you when said evidence was taken, and was he attended by counsel? If yea, give the names of the counsel.

A. He did attend personally before me, and F. D. Wright attended as his counsel; I do not remember of any other counsel appearing on behalf of Green on that occasion.

X Q. 244. On how many occasions? State as nearly as you can.

A. I am unable to state now whether there was anything more than the examination of the parties themselves in the libel suit, but I think there were two or three witnesses examined at different times *de bene esse*, as they came home from the army, but whether they were examined in the libel suit or on the trial of the indictment I am unable to say.

X Q. 245. Was the defendant (Meacham) present at any of these examinations?

A. He was at some of them, if not all, where he was concerned.

X Q. 246. Was he attended by counsel; and, if so, by what counsel?

A. I am confident he was attended by his counsel, but I am now unable to state who the counsel was.

X Q. 247. When did these examinations occur, or about when?

A. I should say about the year 1864.

X Q. 248. About how much time was occupied in these examinations?

A. I should think from one to two hours to a witness.

X Q. 249. How many witnesses were sworn, and about how much time altogether was consumed in this examination?

A. In the examination of the witnesses and the parties I should think it might have occupied the best part of two or three days in all.

2070 X Q. 250. You have stated that Colonel Green drew some of the papers in the proceedings for the examination of these witnesses and parties; what papers were they?

A. The papers necessary to get an order to examine a witness *de bene esse*, I suppose, would be an affidavit and an order for the judge to sign who grants it and a notice to the party or to his attorney of the time and place of the examination and of the names of the witnesses to be examined; how many of these papers were in the handwriting of N. W. Green I am unable now to state; copies, of course, had to be made to serve; I think, also, there would be a subpœna necessary to serve on a witness; I will not swear as to that.

X Q. 251. Do you wish to be understood that the examinations in question were *de bene esse?*

A. I wish to be understood they were *de bene esse* or conditionally, or that they were the examination of the parties to the suit.

X Q. 252. Forms for the papers you have mentioned (affidavit, order, and notice) were contained in books of forms and practice then to be found in the offices of most lawyers having libraries in this village at that time, were they not?

A. They were.

X Q. 253. And any person of ordinary intelligence, with a few months' experience as clerk in a law office, could prepare these papers, could he not?

A. No; he could not, unless he had been instructed in that branch.

X Q. 254. Does not the preparation of such papers usually devolve upon the clerks employed in law offices?

A. Yes; under the direction and instruction of the lawyer.

It is conceded that the witness, Hiram Crandall, may now stand aside, to be produced for the completion of his examination at any time before the close of the time to which the complainants are limited in taking evidence on rebuttal.

Proceedings adjourned until Tuesday, August 17th, 1880, at 9 o'clock a. m., at this place.

2071 Hiram Crandall produced for further cross-examination:

By Mr. Palmer:

X Q. 255. How many times have you been sworn in relation to the patent of Colonel Green in the driven-well cases?

A. Twice.

X Q. 256. On what occasions?

A. This time and in the case of Andrews ag'st Carman.

X Q. 257. About what time was you examined in case of Andrews ag'st Carman?

A. Well, I should say 7 or 8 years ago; in 1872 or 1873.

X Q. 258. Have you refreshed your recollection by reference to your testimony in the case of Andrews *et al.* ag'st Carman?

A. I have.

X Q. 59. Who first proposed to you to be a witness for complainants in the case of Andrews and others against Carman?

A. I think it was Wm. D. Andrews or Milo Goodrich, or both together; I do not remember which.

X Q. 260. Milo Goodrich was then engaged as counsel for complainants in the case of Andrews and others against Carman?

A. He was.

X Q. 261. How came they to know that you could give testimony for the complainants in that case?

A. They asked me questions and I answered them, and I suppose that they knew from papers in the clerk's office that I had had to do with N. W. Green's arrest for the shooting of McNett and taking the recognizance for him to appear upon an indictment to be preferred against him, and that I was a member of the different courts of oyer and terminer held in Cortland county from the time McNett was shot until Green was tried, and that I set aside a judgment obtained in Solon in favor of Wheeler and Terry against Green, and granted a new trial and ordered it to be tried before Stephen
2072 Brewer, of this village, and depositions *de bene esse* or conditionally of various witnesses to be used in Green's trial had been taken before me as county judge. I supposed, also, that they knew through Green that I had had to do in the raising of money by mortgaging and selling his real estate or from the records in the clerk's office of Cortland county.

X Q. 262. What led you to suppose that Mr. Goodrich or Mr. Andrews had acquired such knowledge from the Cortland county clerk's office?

A. One reason is because they employed me to make copies of the recognizances and of the appeal papers in the case of Wheeler and Terry against Green, and of other papers in the clerk's office with which Green was connected or in which he had been concerned. Another reason is that I did not volunteer the information myself.

X Q. 263. Were you employed by them in the case of Andrews and others against Carman otherwise than for the purposes you have just mentioned? If so, state what.

A. I think I was employed to do another thing than what I have mentioned, and that was, according to my recollection, to ascertain when Hunter owned the tub factory on the north side of Elm street, which was afterwards burned, near the Syracuse and Binghampton railroad track, and, I think, to ascertain, if I could, who worked there when the engine was put in, and to invite some witnesses or persons to call at Mr. Goodrich's or Mr. Andrews' rooms at the "Messenger House;" also, I think, to examine my books and data to get the dates of the transactions in relation to which they might wish to examine me.

X Q. 264. How much money did you receive from William D. Andrews or the complainants or their counsel in that case?

A. Including what I paid out for assistance in making copies of papers they required copies of, I received, according to my recollection, forty dollars; also including clerk's certificates in the forty dollars, if I obtained them.

X Q. 265. Did you receive any other moneys or thing of
2073 value from the persons mentioned in the last question in the years 1872 and 1873? If so, state what and how much.

A. The forty dollars I received from Wm. D. Andrews; I received no other money from the complainants or their counsel in that case. I have received a verbal promise from William D. Andrews that if I would send him a description of any driven wells that I had that he would give me a license for them. I sent him a description of the wells, but have never received any license. This agreement or promise to give me a license for my wells free was said to be in consequence of a request from N. W. Green to license the wells owned by such persons as were on the subscription paper which was circulated here after Green's barn was burned to assist him in rebuilding the barn, or to apply toward compensating him for that loss, and I was one of those subscribers. I have not received any other valuable thing from the complainants or their counsel in regard to the matter.

X Q. 266. You say "in regard to the matter," alluding, I suppose, to the case of Andrews and others ag'st Carman. Have you so received anything for any other matter from these parties?

A. I have never received one cent from these parties or their counsel on behalf of the complainants, except as above stated.

X Q. 267. Do you own any territorial right under this patent granted to Col. Green for a process of obtaining water?

A. Under this patent, I did not.

X Q. 268. Do you own any territorial rights under a patent granted by the United States to N. W. Green for a process of obtaining water by the device commonly known as the driven well?

A. I have a deed from N. W. Green for the right, I suppose, to make and use the driven well for the county of Barry, Missouri, under the first patent obtained by Green, and which patent was surrendered *as*, as I understood it, when the present patent was obtained, which deed was a gift to me from Col. N. W. Green.

X Q. 269. What was the date of that deed?

2074 A. I cannot state now, without reference to the deed itself; I think it was soon after the patent was granted.

X Q. 270. What kind of a barn was that of Col. Green's which was burned, and about what was its value?

A. It was an old farm barn for a farm, say, of 50 acres. I was never in it that I remember. It was probably worth 100 or 125 or 150 dollars.

X Q. 271. It was in a poor state of repair at the time it was consumed, was it not?

A. I should think it was, from its appearance.

X Q. 272. You were sworn in behalf of the complainants in the case of Andrews and others ag'st Carman, were you not?

A. I was.

X Q. 273. You say you were employed by complainants to examine your books for data concerning matters about which they were to examine you. What were those matters about which the complainants were to examine you?

A. It was in regard to what my books might show as to the time money was borrowed or obtained by Green, I think. I think, also, in reference to the deed to Hunter of the planing-mill, which was afterward made into a tub factory, north of Elm street, and the time when Hunter sold the planing-mill to Horace Baker, as I had drawn the contract between Hunter and Baker at the time the mill was changed into a tub factory; I cannot remember anything further now.

X Q. 274. What were the names of the persons whom you employed to request to call at the rooms of Mr. Goodrich or Wm. D. Andrews, at the "Messenger House," and who did you so request to call?

A. Martin Luce was one. I think Nathan D. Peck and Mr. Horace Dibble were two others I think there were others, but do not remember their names; am not certain that I invited Peck or Dibble.

X Q. 276. Who asked you to invite these persons to call at the "Messenger House?"

A. Mr. Milo Goodrich or Wm. D. Andrews; I am not certain which.

2075 X Q. 276. How many interviews did you have with either of the complainants or their counsel upon matters connected with the case of Andrews against Carman?

A. Perhaps a dozen; maybe more and maybe less.

X Q. 277. Were these interviews all before you were sworn in that case?

A. No.

X Q. 278. How many of them were before you were sworn?

A. I cannot tell; the interviews were continued during the time they were taking testimony in this village.

X Q. 279. Who were usually present at these interviews, and where did they occur?

A. Mr. Goodrich was sometimes present only; sometimes Mr. Andrews only; sometimes Mr. Goodrich and Mr. Andrews were present only, and sometimes Mr. Goodrich, Mr. Andrews, and Capt. Bennett were present, and sometimes Mr. Goodrich or Mr. Andrews and some other person or persons were present, whose names I do not now remember; and I have been in their room at the "Messenger House" when Mr. Clayton was present. These interviews took place sometimes in my office, sometimes in the street in Cortland village, sometimes in Mr. Andrews' room, and sometimes, probably, in Mr. Goodrich's room, but do not remember. When I speak of Mr. Andrews' room I mean his room at the "Messenger House," in this village, and think I have met one or both in the county clerk's office.

X Q. 280. Did Mr. Goodrich or Mr. Andrews inform you or suggest to you before your examination what subject they wished to examine you upon?

A. They did inform me on some of the subjects on which they proposed to examine me.

Meeting adjourned until Thursday, August 19th, 1880, at 9 o'clock a. m. at this place.

2076 THURSDAY, *August 19th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: D. L. Hurlbut, Esq., of counsel for complainant, and Irving H. Palmer, Esq., of counsel for defendant.

Cross-examination of HIRAM CRANDALL resumed:

X Q. 281. Who composed the family of Colonel Green during his residence in this village?

A. Himself and wife and three or four children, according to my recollection.

X Q. 282. Two of the children attended school at the academy in this village during that time, did they not?

A. I think the two eldest, a boy and a girl, probably did some part of the time; it may be the whole time; I do not know.

X Q. 283. Was it not Colonel Green's custom to attend the public rhetorical exercises on Friday afternoon at the academy of each week during the period from 1862 to 1866?

A. I do not remember.

X Q. 284. Did not Colonel Green frequently attend places of public amusement, social gatherings, etc., in this village during the period above mentioned?

A. I do not remember that he did after 1861, except that he met the families of those he considered his friends from time to time.

X Q. 285. Was not the difficulty between Colonel Green and Thomas G. Meacham, rector of the Episcopal church, the result of intemperate, profane, and insulting language used by Colonel Green towards Dr. Meacham?

A. It was the result of a controversy between them, as I understand it; it commenced by Meacham's reproving Green for his intemperate expressions against those in rebellion South and against the sympathizers of that rebellion North, which led to insult-
2077 ing and intemperate expressions on the part of Green towards Christianity and the Episcopal church, if the Christian doctrine and the duty of a Christian or member of the Episcopal church required him (Green) to refrain from condemning the rebellion and its sympathizers.

X Q. 286. Do you not understand that Colonel Green had on several occasions denounced members of Grace church, of which Dr. Meacham was the rector, as copperheads and rebels, or used language of that import, which led Dr. Meacham to remonstrate with Colonel Green, and that this led to the controversy between them?

A. Yes; I suppose that had to do with it; Meacham was a copperhead and Green was a Union man, and that, I suppose, had to do with it.

X Q. 287. Did not this controversy between Dr. Meacham and Col. Green have its origin and commencement prior to the shooting of McNett by Colonel Green?

A. It did.

X Q. 288. And the shooting of McNett merely embittered this controversy already begun, and was not the origin of it?

A. Yes.

X Q. 289. Have you kept up a correspondence with William D. Andrews since 1872, and occasionally communicated with him by letter?

A. A few letters have passed between us.

X Q. 290. Did you procure the appointment of your brother or other near relatives as the agent of William D. Andrews, or the complainants, for the collection of royalties on the driven well?

A. I assisted in procuring the appointment of my brother; I was his bondsman.

X Q. 291. Was his appointment made upon your application, solicitation, or recommendation?

A. I think I wrote to Mr. William D. Andrews, favoring my brother's appointment, but whether he was appointed solely on my letter or not I do not know.

X Q. 292. Where did this brother reside at the time of his appointment, and what was the territorial limit of his agency?

2078 A. He resided at Laporte, Indiana, and the agency was, I think, for the county in which Laporte was situated.

X Q. 293. What is this brother's name?

A. Richard O. Crandall.

X Q. 294. Do you know Noah J. Parsons, one of the complainants in this cause?

A. I do.

X Q. 295. And his wife?

A. Slightly.

X Q. 296. Was Mr. Parsons the owner of some real estate situated in the village previous to July, 1879?

A. I believe he was.

X Q. 297. Were you employed by him to make a deed of conveyance of those premises about the 1st of July, 1879?

A. I think I was.

X Q. 298. To whom was the conveyance made?

A. I think it was to Mr. Blanchard, Mr. Parson's father-in-law, but I may be mistaken.

X Q. 299. Did Mr. Blanchard immediately, or soon after, convey these same premises to Mrs. Parsons, the wife of the complainant?

A. I believe he did if Mr. N. J. Parsons is the complainant.

X Q. 300. Do you not understand that Noah J. Parsons is one of the complainants in this cause?

A. Yes.

X Q. 301. Was it not talked and understood that Mr. Parsons was making this conveyance of his real estate to his wife in view of the litigation upon which he was about entering in respect to infringements of the patent granted to N. W. Green for the process of obtaining water by the use of a driven well, and that this was
2079 a device for placing his real estate where a judgment against
the complainants in this and other actions would not be a lien thereon or subject to execution?

A. I think not.

X Q. 302. Was it not intimated that such was the purpose of the conveyances?

A. No; I think not; I think he said he was away a good deal and he wanted to provide for his wife against whatever might happen to him.

X Q. 303. Was anything said, at or about the time of these conveyances, about these suits in which Mr. Parsons was complainant?

A. I do not think there was.

X Q. 304. Are you positive that these suits were not mentioned?

A. I think I am quite positive that they were not.

Redirect examination:

R. D. Q. 305. You have stated that you saw, in the fall of 1861, a driven well at the fair ground at the camp of the 76th regiment. Do you know how deep that well was?

A. I do not. It was down to water, so that they pumped water from it.

R. D. Q. 306. You say that you observed an outside pipe at that well. Do you know how far that extended into the ground?

A. I do not. I only saw it above the ground.

R. D. Q. 307. Do you know whether or not the inside pipe did not extend some six or eight feet down below the outside pipe?

A. I do not.

R. D. Q. 308. Did you observe sufficiently to be able to state whether there was not dirt placed and compacted between the two pipes as it appeared near the surface?

A. I did not.

R. D. Q. 309. Are you acquainted and have you been acquainted generally with the people of the town of Preble, in this county, for the last twenty-two or three years?

A. Pretty well with some of them.

2080 R. D. Q. 310. And have you been acquainted with Moses Tallman and William E. Tallman, in his lifetime, during that time?

A. I knew them.

R. D. Q. 311. Did you ever hear of either of those men making a driven well prior to the invention of the driven well by Col. Green in 1861?

A. No.

R. D. Q. 312. Did Col. Green, in conversation, after his difficulties arising from the shooting of McNett, in 1861, usually run off into his troubles?

A. He did, and did not seem able to get his mind on anything else or talk about anything else. He appeared depressed over it, and did not seem willing to be out among people.

Recross examination:

R. X Q. 313. Was not Col. Green almost daily upon the streets of this village when in town?

A. Probably he was, nearly every day or evening. He did not appear to want to be much on the streets in the daytime, but made frequent visits at his friends' houses in the evening.

R. X Q. 314. He was more frequently upon the streets in the daytime during the years 1863, 1864, 1865, and 1866 than he was immediately after the shooting of McNett, in 1861, was he not?

A. I do not know that he was.

R. X Q. 315. He usually went armed after shooting McNett, did he not?

A. I do not know that he did, except during the time he was in command of the regiment.

R. X Q. 316. His avoidance of appearing in the streets in the daytime may have resulted from his apprehension of meeting some person who would attempt to avenge the shooting of McNett by personal violence against him, may it not?

A. No; I think not; because the assassin was more to be feared in the evening and in the dark than in the daytime and in public.

2081 R. X Q. 317. Personal violence towards Col. Green would not necessarily imply his assasination, would it?

A. Not necessarily.

R. X Q. 318. The aim of one who might attempt personal violence would necessarily be more accurate in daylight than in the dark, would it not?

A. I think it would, especially if it was with a gun or pistol or other ordnance.

R. X Q. 319. Did not Col. Green frequently appear upon the streets, engaged in conversation with citizens of this place, from 1862 to 1866?

A. Sometimes, but not very often; he kept himself rather secluded from the public.

R. X Q. 320. About how often did you see him thus engaged in conversation upon the streets during that period?

A. I do not remember that I did at all. I cannot specify an occasion when I did, but I think I must have seen him once in a while on the street in conversation with individuals.

R. X Q. 321. Was it not a characteristic of Col. Green to have a pet hobby, and was his tendency to talk about his troubles such hobby?

A. I think so, to some extent.

R. X Q. 322. Was not this characteristic strongly marked in him?

A. It was, in regard to his troubles.

R. X Q. 323. Have you never observed a similar tendency on his part with respect to other subjects?

A. I do not know that I have.

R. X Q. 324. Was he not something of an egotist, and rather fond of talking about himself, or subjects in which he had taken a prominent part?

A. He was something of an egotist, in my opinion, and used a large capital letter "I" frequently.

R. X Q. 325. Did you learn from any one the method employed in the construction of the driven well which you saw upon the fair ground in 1861, as you have stated?

A. I do not remember that I did.

R. X Q. 326. What was the nature and materials of the earth at the place where this well was constructed?

2082 A. The surface was grass ground and the soil was loam, I should say, mixed with gravel and small stones, increasing in size to the size of our ordinary cobble-stones of the flat in that part of the village; that, probably, is what the earth consisted of there. I do not think it was as stony there as the flats are in some other parts of the village.

R. X Q. 327. The earth at that place was porous and friable, and extremely liable to cave when excavated or undermined, was it not?

A. I should judge so.

R. X Q. 328. If a rod were driven into the ground and into the water contained therein and withdrawn by means of a lever would not the earth at that point be extremly liable to cave in and close the hole made by the rod?

A. I think it would.

R. X Q. 329. The canting or inclination of the rod, consequent upon withdrawing the same from the earth by means of a lever fastened to one side of the rod by a chain, would be extremely liable to produce a caving of the earth into the hole from which the rod was thus withdrawn, would it not?

A. If this rod was deflected from the perpendicular in withdrawing it from the hole, so as to force the lower end of the rod against the side of the hole, it would have a tendency to loosen the earth which the end of the rod came in contact with at the side of the hole in its passage upward, and would be likely to loosen the earth and small stones so that they would drop into the hole; but I do not think the canting of the upper part of the rod, to the extent necessary to remove it upwards by a chain and lever, would place the point of the rod at the lower end against the side of the hole, opposite to that side to which the top part of the rod was deflected from the perpendicular, enough to loosen the dirt at the end of the rod; the rod would be likely to be bent, at a distance above the point, by the deflection of the rod from a perpendicular, and besides I do not understand that the rod would necessarily be canted over from its perpendicular in removing it upwards with a chain and lever.

Proceedings adjourned until 2 o'clock p. m.

2083 2 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Redirect examination of HIRAM CRANDALL resumed:

R. X Q. 330. Were you ever present and did you ever witness the operation of withdrawing a rod or pipe after the same had been driven to a considerable depth in the earth?

A. I think I have been present when a rod or pipe has been withdrawn from the earth, but I do not know that I can tell the time or place.

R. X Q. 331. Do you mean to be understood that you have been present and witnessed the entire operation and have critically observed the same, or that you have casually observed and noticed a part of the operation, and observed men engaged therein?

A. I cannot say that I have been present when the entire rod has been withdrawn from the earth; what I have seen has been casually observed.

R. X Q. 332. Have you had any experience in driving wells, either with or without the use of a rod to be first driven?

A. I have had one driven in my kitchen which I attended to pretty closely, but I have never driven one myself, and I have seen a number of others driven.

R. X Q. 333. At the time you drew the deeds for Mr. Parsons, which you have mentioned, had he then recently returned from the State of Iowa or from the West?

A. I think he had, not a long while before; it may have been a month or two; I cannot tell how long he had been home.

R. X Q. 334. Was the concentric orifice between the exterior and interior pipe in the well you saw at the fair ground in 1861 closed or stopped with any material, or was it open, so far as you have observed?

A. I have no recollection on the subject.

R. X Q. 335. How long have you known Moses Tallman?

A. Probably twenty years.

2084 R. X Q. 336. How long have you known William E. Tallman previous to his death?

A. I think I first knew him about twenty-five years ago.

R. X Q. 337. Did you make the acquaintance of William E. before that of Moses Tallman?

A. Yes, sir.

R. X Q. 338. What led to your acquaintance with these gentlemen?

A. I cannot tell how; I have visited at William E. Tallman's, in Preble, with my wife.

R. X Q. 339. When was that?

A. I cannot give the year; probably in 1861 or 1862; it may have been in 1863; I was invited there to a sugar eat. I have seen these Tallmans' at court as jurors, etc.

R. X Q. 340. On how many occasions did you visit William E. Tallman?

A. Only once on invitation; I think I have called on him on political matters on other occasions, but I am not positive.

R. X Q. 341. Had you any business relations with either William E. or Moses Tallman?

A. I had not.

R. X Q. 342. Did you ever see the well on the premises of William E. Tallman in Preble, at which a windmill was used as a motive power to pump water?

A. No.

R. X Q. 343. Did you ever see a windmill standing out in the fields on the premises of William E. Tallman in Preble?

A. Never to my recollection.

R. X Q. 344. How frequently have you been at Preble since 1858?

A. Several times a year; some years more and some years less; some years eight or ten times and some years four or five times.

R. X Q. 345. By what conveyance did you usually go?

A. About half the time I went with horse and wagon or cutter, and the other half by railroad.

R. X Q. 346. Which road did you take when you went with a horse?

2085 A. Generally the west road.

R. X Q. 347. Have you been informed or do you now know where the well on the Tallman premises was situated?

A. I do not know where it is situated; if I have been informed I do not remember where I was told that it was located.

R. X Q. 348. Do you know John S. Samson?

A. I do.

R. X Q. 349. How long have you known him?

A. I should think about thirty years; perhaps thirty-five.

R. X Q. 350. Where has he resided during that time?

A. Most of the time in Cortland village.

R. X Q. 351. Do you remember that he resided on North Church street, in this village, next south of the residence of Major Adams?

A. He may have lived there; I do not remember.

R. X Q. 352. Do you remember of hearing of the construction of a driven well on the premises last mentioned, for John S. Samson, in April, 1863?

A. I do not.

R. X Q. 353. You have been intimately acquainted with Samson since you knew him, for thirty years, have you not?

A. I have been intimately acquainted with him for about twenty years last past, and knew him pretty well for quite a good many years before that.

R. X Q. 354. Have you done considerable business for him and with him during that time?

A. I have.

R. X Q. 355. And he has been frequently in your office during that time, has he not?

A. He has.

R. X Q. 356. Has not your acquaintance with Samson been more intimate than with either of the Tallmans?

A. It has.

R. X Q. 357. Was there any gentleman residing in Preble whom you have been accustomed to see and with whom your acquaintance is more familiar than with Mr. Samson?

A. No, sir.

2086 Second redirect examination:

R. D. Q. 358. Who had general supervision of the drilling of the military squads at Squires' Hall?

A. Colonel N. W. Green.

R. D. R. 359. You have stated that Colonel Green, during the time of his difficulties, became suspicious of his attorneys and counsel and thought they had gone back on him and was watching them; was he in that state of mind a considerable time during the difficulties from 1861 to the time of his trial on the indictment?

A. He appeared to be.

R. D. Q. 360. In your judgment, was that suspicion entirely unfounded?

A. It was.

Second recross-examination:

R. X Q. 361. Colonel Green was a somewhat eccentric character, was he not?

A. He was, in my opinion.

R. X Q. 362. And inclined naturally to be somewhat suspicious, was he not?

A. I think so.

The witness here states that in regard to the justice in Solon, before whom the judgment was obtained in the case of Wheeler & Terry *v.* N. W. Green, his name may have been Rufus Rice, a Democratic justice there, instead of Samuel McGuire.

Examination of this witness closed.

(Signed) HIRAM CRANDALL.

Subscribed and sworn to before me this 19th day of August, 1880.

[SEAL.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

2087 JAY BALL, M. D., called for complainants:

Q. 1. State your name, age, residence, and occupation.

A. Jay Ball; aged, 52 years; residence, Cortland, N. Y., and occupation, physician.

Q. 2. State how long you have practiced your profession and how long you have done so and resided in Cortland village, N. Y.

A. I practiced 32 years, and 21 years in Cortland village.

Q. 3. Do you know Colonel Nelson W. Green; and, if so, when did you become acquainted with him; how long and how well have you known him?

2088 A. I knew him well; I became acquainted with him in 1860, I think, and knew him quite intimately during his residence in Cortland.

Q. 4. State whether he was connected with the raising and organizing of the 76th Regiment of New York Volunteers, raised here in the summer and fall of 1861, and state, if you know, how far, in point of time and labor, he gave himself up to the work of organizing and raising that regiment.

A. Yes; as to the first part; I could not tell as to the last part.

Q. 5. Have you seen him actively engaged in the affairs of that regiment—in its organization?

A. Yes.

Q. 6. Do you know of the McNett affair occurring in the camp of the regiment in early part of December, 1861, and did you have knowledge of its effect, in point of excitement, on the people in the community?

A. I could say "yes" to the latter part of the question, and I do not know of my own knowledge as to the first part of the question, only from hearsay; I did not see the affray.

Q. 7. You heard of the shooting of McNett at that time by Colonel Green, did you not?

A. Yes.

Q. 8. State what was the effect, describing the degree of popular excitement occurring here from that affair, its extent, and state whether or not the community was divided here for and against the
Colonel's action therein, the intensity of their feelings for and
2089 against, and how long they continued, with reference to the
date of Colonel Green's trial upon the indictment, in the spring of 1866.

A. The effect was to create an intense hostility towards him in the community, affecting all classes. I think a large proportion of the inhabitants in this community were bitter against him, and looked upon it as an injustifiable outrage. Nearly all of the regiment sustained him at the time. It continued to be a subject of talk here until it was tried, and afterwards.

Q. 9. You knew of his trial on the indictment, did you?

A. I did.

Q. 10. State whether you were also aware of the fact that Colonel Green returned from the army in the spring or summer of 1862.

A. Yes.

Q. 11. State, so far as you knew and understood, in what other controversies or difficulties, if any, the Colonel became involved following or growing out of the McNett affair and his action as the colonel of the regiment mentioned.

A. I think there were two suits, horse suits, and he became involved in trouble with the church here. I think he was suspended.

2090 Q. 12. Were these horse suits, as you understood, litigation
arising from hiring horses for the use of the regiment while encamped here upon the fair ground?

A. Yes.

Q. 13. How much did you see Colonel Green during the period from the time of the McNett affair and after his return from the army and down to his trial upon the indictment, in the spring of 1866?

A. It would be difficult answering that question. I met him occasionally.

Q. 14. State what was the effect on his mind and conduct of the McNett affair and the popular excitement growing out of it and the troubles and controversies involving him which followed.

A. It was a compound effect. He was made jealous; he was embittered; he was hostile; he was apprehensive and in a state of excitement whenever I saw him.

Q. 15. What was the theme of his conversation during that time?

A. His personal troubles.

Q. 16. What did you observe as to the degree of excitement upon him from it and the extent to which he became absorbed in these difficulties at the time?

A. The excitement was intense with him, and was the absorbing topic of conversation whenever he and I met.

Q. 17. Was his dismissal from the service talked of greatly by him? And, if so, state whether it worried him or not, as well as his other difficulties.

A. Yes.

Q. 18. In his conversation at that period were you able to hold his attention for any length of time upon any other subject except that of these difficulties?

2091 A. I do not know that I ever tried; I do not know that I ever had a conversation with him but what he introduced the subject of these various troubles.

Q. 19. During the period of these troubles state whether you did not hear charges of insanity publicly expressed against Colonel Green?

A. Yes.

Q. 20. Was it a very uncommon thing to hear them so expressed?

A. Not very.

Q. 21. Do you know whether Colonel Green during the period referred to did any business other than as connected with the defense of his indictment and the other difficulties you have spoken of?

A. I do not.

Q. 22. State whether you were at that time frequently or otherwise in the office of Waters & Wright, attorneys in this village, and whether you were in the habit of seeing him there in consultation in relation to his trial and other difficulties.

A. Yes; occasionally.

Q. 23. State, Doctor, whether in the state of intense anxiety and excitement in which Colonel Green then was, as you say, during the period he was competent to attend to business, and whether he was likely to devote himself in that direction as he would have been had he not been in that state of anxiety and excitement?

A. He was not, in my opinion, in a condition to attend to business that requires forecast or judgment. I will say no to the latter part of the question.

Proceedings adjourned until Friday, August 20th, 1880, at 8.30 o'clock a. m., at this place.

2092 FRIDAY, *August 20th*, 1880—8.30 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

Direct examination of the witness, Jay Ball, M. D., closed.

Cross-examination:

X Q. 24. Where did you reside in 1861 and 1862?

A. I lived where Dr. Hughes now lives, on North Main street, in Cortland village.

X Q. 25. How long did you reside there?

A. I could not tell the exact length of time.

X. Q. 26. You have removed from there and now reside on Tompkins street, in this village, do you not?

A. Yes, sir.

X Q. 27. When did you remove? State as near as you can.

A. In 1862; I cannot give the month.

X Q. 28. Can you give the season of the year at which you moved?

A. I could not give it with certainty. I first moved into the next house south of the Dr. Hughes house, and remained there perhaps two years; from there I moved to West Court street with Stillwell Benjamin's family, remaining there perhaps two years, since which time I have resided on Tompkins street.

X Q. 29. Can you give the date at which you removed from the house next south of where Dr. Hughes now resides to Stillwell Benjamin's?

A. I could not.

X Q. 30. Can you give the year or the season of the year at which you moved?

A. I could not with certainty.

X Q. 31. When you resided on North Main street where did Colonel Green reside?

A. On the same street.

X Q. 32. Please locate the place of his residence upon the street.

A. It was the house west of Otter creek and nearly opposite the carding-mill of Mr. Dibble.

2093 X Q. 33. Did Colonel Green reside there during the whole period while you resided on North Main street?

A. I believe so, but will not be positive; I had lived on Main street previous to my occupying the house where Dr. Hughes now lives.

X Q. 34. When was it that you lived on Main street previous to the time when you lived in the house where Dr. Hughes now lives?

A. From 1860 to 1861, I think.

X Q. 35. Where did you then live?

A. In Mr. Frederick Ives' house, opposite the Cortland Hotel, taking my meals at the hotel.

X Q. 36. Who kept the hotel at that time?

A. I think Julius Graham and John Wheeler, of the firm of Wheeler & Graham.

X Q. 37. Do you remember the fact that Colonel Green lived at one time in the house owned and occupied in part by Daniel Bradford, on the site of the present Masonic Hall block?

A. I have that impression now, that my attention is called to it, but it had escaped my mind entirely.

X Q. 38. Did not the family of Colonel Green move into the Bradford residence in the fall or winter of 1861?

A. They might have done so.

X Q. 39. And did they not remain there until the spring or summer of 1863?

A. That may be; I could not tell.

X Q. 40. Was it your custom to call upon the family of Colonel Green?

A. Yes; we exchanged calls.

X Q. 41. About how frequently?

A. I could not tell.

X Q. 42. When did you commence calling on Colonel Green's family?

A. Very soon after they came to town.

X Q. 43. When, with reference to the shooting of McNett?

A. Previous.

X Q. 44. And had you been accustomed to call there for some years previous?

2094 A. No.

X Q. 45. Can you give about the length of time?

A. I could not.

X Q. 46. Did you continue your calls after the shooting — McNett?

A. Yes; we called after the shooting of McNett; Mrs. Ball, I think, did most of the calling upon them during his absence in the army, and Mrs. Ball and myself called upon them after his return from the army; we exchanged calls; most of my acquaintance with Green, however, was in meeting him in the streets and at law offices and in stores.

X Q. 47. Did Col. Green call upon your family; and, if so, about how frequently?

A. He did; I could not tell how frequently.

X Q. 48. Were his calls more frequent before the shooting of McNett than afterwards?

A. I could not answer the question.

X Q. 49. Have you no impression about it?

A. No marked.

X Q. 50. When Col. Green resided opposite Mr. Dibble's carding-mill he usually passed our residence on his way to the business part of the village or to the post office, did he not?

A. Yes; when I resided on North Main street.

X Q. 51. On which side of the street was it his custom to walk in coming to the village from his residence?

A. I think he generally passed my house, on the east side of the street.

X Q. 52. Did he usually cross to or from the west to the east side of Main street at or near Merrick street on his way to the village?

A. I could not testify positively as to that; it would be the most natural route for him to take.

X Q. 53. The sidewalks over that route were usually better than by any other at that time, were they not?

A. That is my impression.

X Q. 54. Was it your custom to meet Col. Green in the streets frequently and converse with him?

A. Yes.

2095 X Q. 55. Did that occur as frequently after his return from the army as previous to that time?

A. I could not say; it would be my impression that he talked with me more frequently after his return from the army than previously, but I would not say that it was in the streets always.

X Q. 56. Did you meet him as frequently in stores and shops after his return from the army as you did before?

A. I could not say.

X Q. 57. What is your best rocollection or impression in relation thereto?

A. I do not know that I have any; I have not a very distinct recollection of seeing him in any one particular spot in stores or groceries, either previous to or since his return from the army, but presume I have seen him dozens of times previous and since at groceries and stores; I recollect distinctly about meeting him at Waters & Wright's office, I should think, several times, and a number of times at William O. Barnard's house, and, I presume, at his store; probably I saw him and had conversations with him oftener than a great many people did, because he considered me his friend during these troubles.

X Q. 58. Can you now mention any store at which you recollect having met Colonel Green, either before or after his return from the army?

A. I recollect of seeing him in some store; I have no doubt I have seen him in groceries purchasing groceries, and feel quite condent I have seen him in G. N. Copeland's grocery, on Main street, or in that building.

X Q. 59. Did you usually discuss the war news with Colonel Green when you met him after his return from the army until after the war had closed?

A. I think the talk was generally in reference to his own private affairs and his connection with the regiment; but I should presume there was an occasional allusion to war news. We had a good many things to talk about—the troubles in the church and his troubles with different individuals.

X Q. 60. Did he usually profess to regard himself as grievously abused?

2096 A. Yes.

X Q. 61. Did you usually sympathize with him when you met and conversed with him?

A. I should presume so; my sympathies were with him.

X Q. 62. Did you not converse upon any other topics with him than his personal troubles?

A. Yes.

X Q. 63. What other topics or subjects?

A. Well, we talked upon Dansville matters—where he came from, where I was acquainted, and where I used to live. I recollect a conversation at a party at Mr. Barnard's in which he took part; the subject there was women; what made an impression on my mind was that he appeared to have a very high opinion of them, and extolled them for their virtues; but I noticed that he very soon went off on his old troubles; he did not appear to be able to keep it out of his mind, even at such a social gathering with ladies; I did not think it in good taste.

Proceedings adjourned until 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.
Present: As before.

Cross-examination of JAY BALL, M. D., resumed:

X Q. 64. Did Col. Green ever disclose to you anything of his personal history, as to where he was born, where he had lived, and what his occupation had been?

A. Yes; I am not positive that he told me where he was born, but I presume that is so; I think he told me that he
2097 & 2098 was in the insurance business at Dansville, Livingston county, New York; he was educated at West Point United States Military Academy. My impression is that he told me he had practised law or edited a paper somewhere; I think I got that impression from him; I cannot tell where it was.

X Q. 65. Do you now recall anything further in relation to his personal history that you obtained from him other than what you have stated?

A. I do not.

X Q. 66. Did you learn from him that he had lived at or near Portage or Portageville, Livingston county, at one time?

A. I do not recollect that he ever told me, but I now have that impression that he lived at Portage. I heard it from him or some one else.

X Q. 67. Do you now recall the name of any person from whom you obtained any facts relating to his personal history which occurred previous to his coming to Cortland to reside?

A. Yes.

X Q. 68. Give the name.

A. Theodore Leonard.

2099 X Q. 69. Where did Leonard reside at that time?

A. Dansville, Livingston county, N. Y.

X Q. 70. Does he still reside there?

A. No; he is dead.

X Q. 71. Was Leonard, in his lifetime, acquainted with Green?

A. Yes, sir.

X Q. 72. What had been his relations with him?

2100 A. Neighbor; and Mrs. Green, before Col. Green married her, was a member of his family at Dansville.

X Q. 73. What, if anything, did you learn from Mr. Leonard concerning the personal history of Col. Green?

A. I learned by Mr. Leonard that Green was there in the insurance business.

X Q. 74. Is it not your best recollection that Green told you that he had resided at or near Portage or Portageville, Livingston county, for a time?

A. I could not say that I have any impression as to where I obtained it; it is as likely that I obtained it from Mr. Leonard as from Col. Green.

X Q. 75. Did you ever treat Col. Green as a physician?

A. No, sir.

X Q. 76. Was he ever ill while he resided in Cortland so as to require the attendance of a physician, to your knowledge?

A. No.

X Q. 77. He was a man of large, robust frame and apparently vigorous physical health, was he not?

A. Yes; I think he was. He got some injury to his system in some way; I think he told me at West Point.

X Q. 78. What injury did he receive at West Point?

A. It is my opinion that he said it was a breach; my impression is that he told me he got it in wrestling.

X Q. 79. What was Col. Green's occupation while he lived here?

A. I do not know that he had any occupation while here, excepting to attend to these matters which we have been considering.

X Q. 80. Did you ever see him employed in any avocation such as men usually pursue for a livelihood?

A. I cannot say that I have.

X Q. 81. Did he ever converse with you on the subject of the driven well?

A. Yes.

X Q. 82. When was that?

A. I could not tell when it was.

X Q. 83. Can you approximate?

A. It was after he came back from the army.

X Q. 84. Soon after or some time after?

2101 A. I could not tell; it might have been a year or two years.

X Q. 85. What did he say about it?

A. He was talking about getting a patent; I think he told me he was going to get a patent, and he said something about Suggett's making a claim, and he wished to have me see Suggett and learn what I could from him. I told him that Mr. Suggett was a man whom I thought was not friendly to me, as he was "miffed" about my treating a child of his and thought I left it sooner than I ought to. I gave that as a reason for not saying anything to Mr. Suggett on the subject.

X Q. 86. Was any mention made in that conversation of the fact that Suggett had been engaged in constructing driven wells?

A. That would be my impression; still he might have claimed that Suggett was trying to get a patent; I will not be clear.

X Q. 87. A patent for what?

A. It was something connected with the driven well.

X Q. 88. You think, then, do you not, that it was stated in that conversation between you and Col. Green that James Suggett was making a claim to be the inventor of the driven well?

A. No; I would not say that, but it was some process connected with it.

X Q. 89. You stated just now, did you not, that you had an impression that Col. Green desired you to have an interview with James Suggett and ascertain from him where he obtained the idea of a driven well?

A. I am inclined to that impression.

X Q. 90. And did Col. Green request you to inform him what Mr. Suggett should state to you upon that subject?

A. No; I declined to interview Mr. Suggett.

X Q. 91. Was anything said in that conversation about the wells which Mr. Suggett had constructed?

A. Not that I recall.

X Q. 92. Was Mr. Mudge's—Byron Mudge's—name mentioned in that conversation?

2102 A. I could not say.

X Q. 93. Do you now recollect of any driven wells which had been constructed by any one in this village at the time of the conversation referred to?

A. I do not.

X Q. 94. Did you hear of the construction of a driven well by James Suggett in the cellar of the store occupied by G. N. Copeland in this village in 1862 at about the time it was made?

A. I presume I heard of the well about the time it was made, but I have no recollection as to who made it.

X Q. 95. This well was the subject of considerable conversation in this community after or about the time it was made, was it not?

A. I presume it was, but should not have recalled it from my own recollection if you had not mentioned it.

X Q. 96. Did you hear of the construction of a driven well at the residence of James A. Schermerhorn, in this village, by Byron Mudge about the year 1861?

A. I have no recollection of ever having heard of it.

X Q. 97. Did you hear of the construction of a driven well by Byron Mudge on the premises and at the residence of Henry Woodruff, in this village, about the year 1861 or 1862?

A. I presume I heard about it; I know that he made an attempt at it, because I watched him from my house at work at it; it is my opinion that it was a failure and did not succeed at that time.

X Q. 98. Was it not subsequently completed and made a successful well?

A. I could not say of my own knowledge.

X Q. 99. Have you not been informed that it was completed and made a successful well?

A. I do not recollect; I may or may not have been so informed.

X Q. 100. Colonel Green usually passed the residence of Henry Woodruff on the way from his residence to the post office, did he not?

A. Yes; while he resided opposite the carding-mill.

2103 X Q. 101. Were you in the house built by Henry Bates on the northeast corner of Main street, opposite the Messenger Place, in this village, while it was being constructed?

A. I do not think I was.

X Q. 102. Did you hear that a driven well was constructed in that house for Mr. Bates in 1863?

A. I have no recollection of it.

X Q. 103. Has it not been the custom in this village since 1863, and commencing at about that time, to construct a driven well in the cellar of a house or building about to be built, and to draw water therefrom with which to prepare the mortar or cement used in the construction of the cellar and foundation walls?

A. I can say yes with tolerable confidence if you will put it in 1864 or 1865.

X Q. 104. Did you have a driven well constructed for yourself? If so, state when.

A. I think it was in 1864, by Robert Dalton.

X Q. 105. Driven wells at that period of time were quite common and were usually constructed where a well was desired, were they not?

A. I cannot say.

X Q. 106. What do you know with respect to what Colonel Green did in the organization and equipment of the 76th regiment, so called?

A. He was the commanding officer and had the appointment of the staff officers or selected them. He had the general supervision of the regiment and some of the details.

X Q. 107. Is it not a fact that Colonel Green held no commission as colonel of the 76th regiment, so called, until after its arrival at Albany in December, 1861?

A. I think it is not a fact. I think the fact that his commission antedated the shooting of McNett was proved at his trial at the court-house.

X Q. 108. Was not Colonel Green's commission delivered to him after the arrival of the regiment at Albany, N. Y., in December, 1861, and was not his commission antedated and made to date from October 29th, 1861?

A. I do not know.

X Q. 109. Byron Mudge did not become a member of the 76th regiment and go into the service in that regiment, did he?

2104 A. I do not know.

X Q. 110. What is the source of your knowledge respecting Green's authority as colonel of the 76th regiment, and also what he did with respect to recruiting and organizing the same?

A. He told me he was colonel, I think; I know he acted as colonel; he was recognized as colonel; by his conversation he conveyed the impression that he was colonel; I know he had his staff as colonel; he went to and from the camp acting as though he had control of the regiment; his orders were obeyed by the regiment as colonel, and on the trial he was tried as a colonel.

X Q. 111. You never saw his commission or the commission of any of the other officers of the regiment, did you?

A. No.

X Q. 112. You never saw the indictment against him for the shooting of McNett, did you?

A. No.

X Q. 113. Is not all you know about the horse suits against Col. Green, mentioned by you in your direct examination, what you have heard regarding the same?

A. Yes.

X Q. 114. Is not the same true regarding Col. Green's troubles with the church and the pastor of the church?

A. Yes.

X Q. 115. Did Col. Green ever mention to you any troubles in which he had been involved previous to his coming to Cortland?

A. I think not.

X Q. 116. Col. Green was a rather eccentric man in a general way, was he not?

A. I do not know that he was more than a great many other people.

X Q. 117. He was eccentric in some respects, was he not?

A. He was eccentric in regard to not having any dressing about his neck.

X Q. 118. He was somewhat of an egotist and quite aggressive, was he not?

2105 A. He was aggressive towards his opponents, but I do not know that he was egotistical more than most people are.

X Q. 119. He talked about himself considerably, did he not?

A. He did.

X. Q. 120. He was quite inclined to have a hobby or pet theme, was he not?

A. I could not say that he was more than other people placed in his position would have been; I never heard him talk about any pet scheme other than his troubles.

X Q. 121. At about what time did you see him at the office of Waters & Wright?

A. I could not specify the time; it was after the indictment; he was there to meet his counsel, and I used to meet him there frequently.

X Q. 122. Was it shortly previous to his trial that you saw him there?

A. I could not say as to the dates.

X Q. 123. Did you see him shortly previous to his trial?

A. Yes; I know I did.

X Q. 124. Was he any more absorbed than usual at that time in matters connected with his indictment?

A. He must have been; it was during the holding of the court.

Cross-examination of this witness closed.

Proceedings adjourned until Saturday, August 21st, 1880, at 9 o'clock a. m., at this place.

SATURDAY, *August 21st*, 1880—9 a. m.

Convened pursuant to adjournment.

Present: Noah J. Parsons, Esq., one of the complainants, and Irving H. Palmer, Esq., of counsel for defendant.

By consent, the proceedings were held open on account of the sudden illness of D. L. Hurlbut, Esq., of counsel for complainants.

2106 At 12 o'clock m. parties as above noted appeared, and by consent further proceedings were adjourned until Monday, August 23d, 1880, at 10.30 a. m., at this place.

MONDAY, *August 23d*, 1880—10.30 o'clock a. m.

Convened pursuant to adjournment.

Present: D. L. Hurlbut, Esq., of counsel, and Noah J. Parsons, Esq., one of the complainants, and Irving H. Palmer, Esq., of counsel for defendant.

Proceedings adjourned until 2 o'clock p. m.

2 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: Hon. Milo Goodrich and D. L. Hurlbut, Esq., of counsel for complainants, and Irving H. Palmer, Esq., of counsel for defendant.

Redirect examination of JAY BALL, M. D., by Mr. GOODRICH:

R. D. Q. 125. You speak on your cross-examination of a driven well put down on the street where you lived at the time and not far from your own residence for Mr. Henry Woodruff by Byron Mudge. Please state on what part of his premises, whether in front or rear of his dwelling, that well was put down or attempted to be put down, whichever it was.

A. It was in the rear of the upright of Mr. Woodruff's dwelling. It was a failure, as far as I knew anything about it.

R. D. Q. 126. State, if you please, whether the locality of the well or the attempt to make a well there was so situated, with reference to the street or sidewalk of the street, that a person passing along that sidewalk must necessarily have observed the work being done, or would have naturally observed it, so as to have known that
2107 it was the work of putting down or attempting to put down a driven well.

A. I think that not one in a hundred passing along would have noticed it so as to know what was being done; I think that they could not have seen that any work was going on there, unless at a point even with the front of my house, south.

R. D. Q. 127. State how far south of Mr. Woodruff's house yours was; about how far, I mean.

A. About fifty feet, I should think.

R. D. Q. 128. After Col. Green's return from Washington, in the spring or summer of 1862, as you state, have you any recollection that enables you to state that his intention was ever called to the work of putting down or attempting to put down a driven well there for Mr. Woodruff or of any other driven well, in Cortland village or elsewhere, prior to his asking you, as you say he did, to have a talk with Mr. James Suggett?

A. No.

R. D. Q. 129. You say, upon your cross-examination, that you were not able to give the exact year when Col. Green asked you to have that conversation with Mr. Suggett; is there any event or transaction which you can recall and which is associated in point of time with the date of that request, and which enables you more certainly to fix the time when that request was made? If so, state what that event or transaction was.

A. There was a circumstance in connection with it which might enable others to fix the time, and that was the fact that Green was having or was to have a contest with Suggett, and he wished me to learn certain things so as to be a witness for him; it is my belief that he was already engaged in a litigation about the patent.

2108 R. D. Q. 130. Was that a litigation in which they were taking testimony here in Cortland over the patent, according to your present best recollection?

A. That is my impression.

R. D. Q. 131. Do you remember whether Mr. Mudge was a party to the same litigation in which the testimony was being taken here in Cortland?

A. I remember hearing so.

R. D. Q. 132. Do you recall whether the proceeding was called an "interference" proceeding between the contestants for the driven-well patent or not?

A. I have heard that term used a great many times—whether at that particular time I could not say; it was discussed about the streets a good deal.

R. D. Q. 133. Whatever the proceeding was that is associated in point of time in your mind with the request that Colonel Green made to you, to have the talk with Mr. Suggett, in order to your being a witness on that proceeding, are you able now to give the date of that proceeding; I mean the year of it?

A. I am not.

R. D. Q. 134. Is there any fact or circumstance that enables you to say that that proceeding and that request of Colonel Green's which is associated with it in your mind did or did not occur in 1866 or 1867; can you say it did not occur in one or the other of these years?

A. No, to both of these questions.

2109 R. D. Q. 135. Now, Doctor, will you state whether or not, when you saw Colonel Green after his return from the service and prior to his trial on the indictment here, you discovered in his appearance and conduct any change in appearance or not? If so, state what it was.

A. I had that impression—that he looked crestfallen when he came back.

Redirect examination of the witness closed.

Recross-examination by John W. Suggett, Esq., who appears to cross-examine the witness by reason of the indisposition of Mr. Palmer:

R. X Q. 136. When were you last upon the stand as a witness previous to your examination here to-day?

A. Friday, I think.

R. X Q. 137. Since then how many conversations or interviews have you had with the complainants, William D. Andrews, Noah J. Parsons, D. L. Hurlbut, or Milo Goodrich, or any or either of them?

A. I have spoken with Mr. Parsons twice. I have had two conversations at which Mr. Andrews was present and at which was present Mr. Hurlbut at both and Mr. Goodrich was present at one of them, according to the best of my recollection.

R. X Q. 138. Did those conversations take place at Mr. William D. Andrews' room, at the Messenger House?

A. One conversation did.

R. X Q. 139. After leaving here last Friday night were you not requested by the counsel, D. L. Hurlbut, or some one of the persons named, to go to the complainant's room at the Messenger House?

A. No. I was told that Mr. Hurlbut would like to see me at the Messenger House, and I saw him at his room the same night.

R. X Q. 140. Was this question of the time as to where you had this conversation with Green with reference to Suggett brought up, directly or indirectly, personally to you or in your presence at any of the conversations you have mentioned?

A. Yes.

2110 R. X Q. 141. And was it there suggested that the litigation in Cortland, called the interference case, would be a good thing for you to fix the time by, or something to that effect?

A. No; I do not think it came in any such shape as that. Mr. Hurlbut asked me some questions as to the time. He told me that there was a contest between these three parties, called the interference case, between Mudge, Suggett, and Green, in 1866, and, I think, asked me the question if it was not at that time I had the conversation with Mr. Green. I think I told him that if that was the only time that there was such a contest that it would be my opinion that that was the time. He says, You think the matter over, and I left his room.

R. X Q. 142. How soon after the adjournment on last Friday night was it that you were thus in Hurlbut's room?

A. About eight o'clock, I think.

R. X Q. 143. Who came after you?

A. Noah J. Parsons.

R. X Q. 144. He is one of the complainants in this suit, is he not?

A. I do not know.

R. X Q. 145. And he is engaged, and has been, as you understand, in the business of collecting royalties in the State of Iowa on the alleged Green patent, has he not?

A. I so understand.

R. X Q. 146. Have you heard or learned that after the said Noah J. Parsons' return from the West, in July, 1879, he conveyed all of his real property, through his father-in-law, to his wife?

A. I never have heard of it.

R. X Q. 147. Henry Woodruff's house has been enlarged on the south from what it was in 1861 or 1862, has it not?

A. It may be that the back wing has been enlarged; the upright could not be extended south on account of lack of land. I think the chambers have been raised.

R. X Q. 148. Will you swear positively that subsequently to the year 1862 there has not been an addition built in a southerly direction on this Woodruff house?

2111 A. No; the back wing might have been enlarged southerly.

R. X Q. 149. How far was it from the place where this well was made at Woodruff's, measured in a northerly direction, to the side of this back wing?

A. I guess four feet.

R. X Q. 150. And how far from the upright part?

A. Four feet; it is all guess-work.

R. X Q. 151. And how far did the upright post extend south from the wing?

A. I think eight; probably ten feet.

R. X Q. 152. Will you swear positively that that well could not be seen to a passer-by on the street from the south side of Woodruff's lot?

A. I think I could.

R. X Q. 153. Will you so swear?

A. I could not, for I do not know where the well is located; it was not made while I was there in 1862; an attempt was made, but I think it was a failure; I will qualify that by saying I do not think that the well was made in 1862, while I lived next south.

R. X Q. 154. Did you understand my last question?

A. I suppose I did.

R. X Q. 155. Will you now try to answer it without making any volunteer statements?

(Questions 152 and 153 are read to the witness.)

A. I will not, unless you designate what well.

R. X Q. 156. Then you refuse to answer the question, do you?

A. I could not answer the question.

R. X Q. 157. What year was it that this well was attempted to be made?

A. I had the impression that it was in 1862 that the well was attempted, but there is a bare possibility that it was attempted in the fall or winter of 1861, which had not occurred to me before.

R. X Q. 158. How does this latter circumstance come to your mind when you have been putting it before in 1862? Please explain yourself.

A. I bought the place south of Henry Woodruff's, and
2112 moved in there either late in the summer of 1861 or in the
fall, and sold the place and moved out in 1862; and it was
during this time that he made the attempt to put down the well.

R. X Q. 159. What time in 1862 was it that you moved out of that place next south of Henry Woodruff's?

A. I could not tell without looking at the records; I do not know whether I lived there more than a year or less than a year.

(By consent the witness leaves the room for the purpose of examining the records in the county clerk's office; returns and says further in answer:)

I occupied the first residence south of Henry Woodruff's from the latter part of summer, 1861, till the spring of 1863.

R. X Q. 160. You stated in your cross-examination that you saw the men at work making or attempting to make the well at Henry Woodruff's; state who you saw and when you saw him.

A. I do not remember of seeing any one but Byron Mudge; I do not recall any one I could tell when; it was during the period that I resided there.

R. X Q. 161. Was it in the fall of 1861?

A. I could not tell.

R. X Q. 162. Was not this well at Woodruff's subsequently completed by Mudge or others before you moved away, and, on reflection now, do you not remember that such was the fact?

A. I cannot tell; I do not know.

R. X Q. 163. Will you swear that that well was not completed in the fall of 1862?

A. No.

R. X Q. 164. Did not Mudge go with the regiment, expecting to obtain a commission as a lieutenant?

A. I do not know.

R. X Q. 165. Do you wish to change the testimony that you gave on your former cross-examination as to the time when Green had this talk with you in relation to Suggett?

2113 A. No; because I was not positive as to the time then, and I am not positive now.

R. X Q. 166. Did you not swear on your former cross-examination that Green said that Suggett was trying to get a patent on the driven well when this conversation took place?

A. I do not think I made that statement unqualifiedly.

R. X Q. 167. Have you had read over to you by Mr. Hurlbut or any one else the notary's minutes of what you then swore to in this connection, or was the contents stated to you?

A. I believe not; I cannot recall the fact, if it has occurred.

R. X Q. 168. Then, will you swear positively that Green did not then tell you "that Suggett was trying to get a patent?"

A. No; I will not swear that he did not; I gave it as my impression, on my direct examination, that he did tell me so; that he was trying to get a patent on something pertaining to a driven well, or the well itself.

R. X Q. 169. Then, as you understood it, Suggett was then attempting to get a patent, and had not got it; is this not so?

A. I will not be positive as to that; and what he wanted me to ask Mr. Suggett I could not now say; I did not entertain the proposition for a moment.

R. X Q. 170. Is not your recollection as good now as it was on Friday last?

A. It may not be.

R. X Q. 171. If you testified on Friday last that Green stated "that Suggett was trying to get a patent," in connection with this conversation, was not that true?

A. If I made that statement unqualifiedly, it is probably true, providing my memory serves me correctly.

R. X Q. 172. Will you swear positively that you did not make that statement? Answer directly, yes or no.

A. I will not, unqualifiedly.

R. X Q. 173. You have stated that Mr. Suggett was "miffed" at you because of something growing out of your professional treatment of his child; did you learn this from him personally or did you hear it?

2114 A. I was so informed, and from his treatment of me afterwards I have reason to believe that it was so; I was treating the child for croup, and when it appeared to me to be unnecessary to continue longer I discontinued my visits; I understood that he was not pleased that my visits were discontinued so soon.

Proceedings adjourned until Tuesday, August 24th, 1880, at 9 o'clock a. m., at this place.

2115 TUESDAY, *August 24th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: John W. Suggett, Esq., appearing for defendant in place of Mr. Palmer, who is still indisposed, and D. L. Hurlbut, Esq., for complainants.

Recross-examination of JAY BALL, M. D., resumed:

R. X Q. 174. Have you been and consulted with Henry Woodruff in relation to this well?

A. Yes.

R. X Q. 175. And were you informed by him that Mudge attempted to make that well in the fall of 1861, and that in so doing he met with some obstruction—broke his rod—and that subsequently, in the year 1862, he completed it, or words to that effect?

A. I could not say that he told me when the first attempt was made; he gave it as his opinion that the well was completed in 1862; I told him that it was my impression and that of my wife that it was not completed while we lived in the house adjoining; we supposed that we furnished him water while we lived there.

R. X Q. 176. You will not swear positively, will you, that that well was not completed in the fall of 1862?

A. No.

R. X Q. 177. You have recently examined Mr. Woodruff's premises and the premises of Dr. Hughes, which you formerly owned, with a view to see whether or not the place where this well was made could be seen from the street, have you not?

A. Partly for that purpose.

R. X Q. 178. Your memory is not as good as it formerly was, is it?

A. I do not know as I could answer that question; it is my impression that when I was a student and was drilling my mind I had a little more retentive memory than I now have.

2116 R. X Q. 179. As to the minor details and as to dates of these transactions upon which you have been interrogated here, having occurred from fourteen to nineteen years ago, and you having made no memorandum or note of them, you do not claim or pretend, do you, that you are absolutely accurate or correct in regard thereto?

A. No; as my answers to these questions indicate.

R. X Q. 180. You were not the guardian, custodian, or keeper of Colonel Green after his return from the army to the time he left Cortland, were you?

A. No.

R. X Q. 181. Was there any committee appointed by any court or judge to have charge of his person or property during that time?

A. Not that I am aware of.

R. X Q. 182. Then he managed his own affairs, did he not?

A. Well, he had a couple of lawyers employed, if not more, to assist him, I have been told.

R. X Q. 183. He was not committed to any insane asylum or other institutions for persons of diseased mind during these years that you know of, was he?

A. Not that I know of.

Recross-examination of this witness closed.

Second redirect examination:

R. D. Q. 184. You have spoken, on your cross-examination, of a conversation which you had with Henry Woodruff and have detailed a portion of it in regard to his well; when did that occur?

A. Last evening.

R. D. Q. 185. For what purpose did you go to Mr. Woodruff's last evening? Please state fully about it.

A. I became satisfied that my impressions in regard to the distance from the wing of his house to the southeast corner of the house were erroneous as stated in the cross-examination, and, for the purpose of correcting those erroneous impressions 2117 & 2118 and to satisfy myself whether the well was observable from the street, I went and made the examination; the location of the well could not be seen from the street; the distance from the wing to the southeast corner of the house is twenty feet.

Examination of this witness closed.

(Signed) JAY BALL.

Sworn and subscribed before me this 24th day of August, 1880.

[L. S.] (Signed) M. STANLEY BIERCE,
Notary Public.

2119 James S. Squires called for complainants.

2120 Irving H. Palmer, Esq., here appears for defendant as before.

Q. 1. State your name, age, residence, and occupation.

A. My name is James S. Squires; aged 61 years; residence, Cortland, N. Y., and occupation, president of the National Bank of Cortland.

Q. 2. How long have you been president of the bank, and what other occupations, if any, have you followed for the last twenty years?

A. Eleven years as president of the National Bank and engaged in the mercantile business for sixteen years in Cortland prior to that. I have also built several houses, leasing them and looking after a large number of tenants.

Q. 3. State how long you have resided in Cortland village, and whether you are generally acquainted with the people of Cortland county.

A. I have resided in Cortland village 27 years; my business and occupation has led to a large acquaintance in Cortland county.

Q. 4. Were you conversant with the raising and organizing of the 76th Regiment of New York Volunteers, raised here soon after the breaking out of the late civil war?

A. I was somewhat familiar with it.

Q. 5. Did you know anything of the formation of portions of the citizens here into squads for military drill prior to the organizing of the regiment? If yea, state what you know upon the subject.

2121 A. I did know something of it; I was applied to for my hall for the purpose of drilling squads of men; I think Mr. Green, Mr. Mudge, Mr. Robinson, and Mr. Carmichael or some of them came to me about it; I cannot remember which of them it was. I also was at the hall and saw them drilling squads of men; I cannot say which of them; my memory is that they, with Mr. Green, had charge of the drills; the drills were held in the evening; they might have been held in the daytime, but I only attended in the evening; I was occasionally there.

Q. 6. Do you know Colonel Nelson W. Green? If so, state when you became acquainted with him and how long and intimately you have known him.

A. I know N. W. Green; I cannot say exactly how long, but I knew him previous to the breaking out of the war and knew him in business relations; he traded at my store and had an account there.

Q. 7. What was his relation to the military drill and the forming and organizing of the regiment you have spoken of?

A. He appeared to be the only one who thoroughly understood military tactics; he seemed to give orders and directions to the others at the drill and to have charge of it frequently; he was acting as colonel of the regiment, as I understood it.

Q. 8. Did Carmichael, Mudge, and Robinson act as subordinate assistants in raising and organizing the regiment?

A. They did, according to my best recollection.

Q. 9. State, if you are able to say from observation at the time, to what extent, in point of time, Colonel Green gave himself up to the business of drilling and to that of raising and organizing the regiment.

2122 A. My recollection would be, so far as my observation was, that he attended to that mostly and did not have any other business that I know of.

Q. 10. State whether you have personal knowledge, from observation at the time, of Colonel Green's attending to and supervising the drilling mentioned and the raising and organizing of that regiment. Please state whether you have a recollection of seeing him engaged in those employments and how frequently you were accustomed to see him thus engaged.

A. I did see him engaged in those employments frequently; I cannot say how often; sometimes on foot and sometimes on horseback.

Q. 11. State further whether you have personal knowledge, from observation, that the persons you have named, Messrs. Carmichael, Mudge, and Robinson, acted as his assistants and under his supervision in carrying on the drill and raising and organizing the regiment.

A. My best recollection would be from observation that they did assist Colonel Green in the formation and raising of the regiment.

Q. 12. State whether you were accustomed at that period of time to seeing them act under Colonel Green's supervision in carrying out his directions with reference to that of drilling and the business connected with the raising and organizing of the regiment.

A. I think they were, but it is so long ago that I cannot be positive about it.

Proceedings adjourned until 2 o'clock p. m.

2123 2 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: D. L. Hurlbut, Esq., for complainants, and Irving H. Palmer, for defendant.

Examination of JAMES S. SQUIRES resumed:

Q. 13. State whether you had knowledge of the shooting of McNett on the camp ground of the 76th regiment here in Cortland by Colonel Green on the occurrence of an alleged mutiny in camp through the public notoriety it at once obtained and the indictment of Colonel Green for the act which followed.

A. I had no knowledge from public notoriety.

Q. 14. State the degree of popular excitement which followed the occurrence of the McNett affair, the intensity of it, and how it affected the community, and the extent of it.

A. It was extremely high, people taking one side or the other, and there was a tremendous excitement.

Q. 15. About how were the people divided here over the occurrence, and did it extend generally over the county?

A. My recollection would be that there were more for Green than against him. The excitement was pretty generally throughout the county.

Q. 16. Was trouble apprehended from this affair, either from the citizens or soldiers, from the bitterness of the controversy ?

A. There was.

2124 Q. 17. What class of men were those that were bitterly opposed to Colonel Green generally ?

A. Usually all those who were opposed to the war; not entirely so.

Q. 18. State to what extent the excitement and division formed against the Colonel extended into the ordinary social relations of men here, and whether it entered the church here of which Colonel Green was then a member.

A. It was very high in social relations, and I was informed that a division was made in the church thereby, and he was dealt with in the church for his language and acts, I suppose.

Q. 19. State, if you know, how long this state of the public mind continued with reference to Colonel Green's trial on the indictment of April, 1866, for the shooting of McNett.

A. I could not remember how long; some time.

Q. 20. Was there more or less excitement down to the time of his trial in 1866 ?

A. There was more or less excitement down to the trial.

Q. 21. State whether you personally were connected in any way with the proceedings in court upon the indictment mentioned; and, if you were, state how.

A. I was one of his bail.

Q. 22. Were you ever assailed by the enemies of Colonel Green for bailing him; and, if so, what language was applied ?

2125 A. I was assailed and epithets of an abusive character were used, but I cannot remember the language nor the persons now.

Q. 23. State whether, during the period referred to, charges of insanity were made against Colonel Green, and how frequently they were made here during that period.

A. There were charges that he was insane, or else he would not say and do the things that he did.

Q. 24. State whether you heard of Colonel Green's being burned in effigy by his opponents here during that period of excitement.

A. I remember something about it, but I cannot remember the particulars.

Q. 25. Do you remember of Colonel Green's being removed from command and sent home from Washington in the summer of 1862?

A. I remember of hearing of his removal, but the dates or places I cannot remember.

Q. 26. State now how Colonel Green's indictment and his removal from command and the popular excitement growing out of the McNett affair affected Colonel Green's mind and conduct during the period referred to. Answer according to what you saw and conversed with him.

A. He appeared very excitable, and frequently alluded to it in his talk; it seemed to absorb his mind.

Q. 27. In his talking of these matters state whether he appeared in a high degree of excitement.

2126 A. He did seem very highly excited when talking upon those subjects—the war and his dismissal from command and his indictment for the McNett affair.

Q. 28. In speaking about the war and war news state whether or not Colonel Green would usually run off into difficulties and troubles.

A. He frequently did.

Q. 29. Do you know of Colonel Green's having or doing, during the period from the McNett affair and after his return from the army in the spring or summer of 1862 down to the time of his trial in 1866, any business other than as connected with his preparations for his trial and with his efforts to be reinstated and his defense against other personal troubles mentioned?

A. I do not.

Q. 30. Do you know anything about his being in want of means for the support of himself and family during the period above mentioned? If so, state what you know on the subject.

A. My recollection would be that he traded at my store at one time and had an account running there, which was several years before being settled up, about the war time.

Q. 31. State whether you remember, in 1866, just after Colonel Green's trial on the indictment, of his barn being burned.

A. I remember that I heard of his barn being burned; I could not fix the date.

2127 Q. 32. Do you know anything about the process of the driven well, so called, which was made known here in the summer or fall of 1861?

A. I remember hearing it talked about some about the war times; I could not tell the date.

Q. 33. State whether you remember of hearing of such a well at the camp of the 76th regiment at the fair grounds.

A. I do remember of hearing that there was such a well there.

Q. 34. Was the idea of obtaining water at that time by that process new and novel?

A. It was to me.

Q. 35. Was it so regarded by the community here, so far as you heard expressions at that time?

A. It was so talked about, so far as my recollection and observation extended.

Q. 36. Did you hear of the interference controversy in relation to this process, and of testimony being taken in relation to it, some time in 1866, between Green, Mudge, and Suggett?

A. I recollect hearing of the suit, but cannot fix the date, and do not know the particulars.

Q. 37. Now, state whose discovery this new process for obtaining water which you have mentioned was publicly conceded to be, so far as you knew at the time when it was first made known here and down to about the time at which testimony was taken here in the interference case mentioned.

A. The first that I knew of it, it was called Mr. Green's
2128 process of getting water, at the camp ground; I cannot testify how long it continued to be called so; it was by driving a hollow tube in the ground, as I understood it, and was a new idea to me.

Q. 38. When spoken of in the discussions which took place in your hearing, during the period mentioned, whose discovery was it called?

A. I supposed it was called Mr. Green's discovery, as it was called Mr Green's well, made by driving a hollow pipe in the ground.

Q. 39. State whether Colonel Green, in purchasing goods at your store, requested credit. And, if so, what did he say on that subject?

A. He did request credit, but I cannot remember now what he said; only he said he could not pay at that time; I do not remember the particulars about it.

Q. 40. Do you know James Suggett who was connected with that interference controversy spoken of?

A. I know James Suggett and heard that he was interested in such a suit, but do not know the particulars.

Q. 41. Where does Mr. Suggett now reside?

A. In this village.

Q. 42. Have you seen him on the streets lately?

A. Not long since; I do not know the precise time.

Q. 43. Have you seen him at your bank within the past week or ten days?

A. I do not remember.

Q. 44. Have you been more or less acquainted with the people of the town of Preble for the past fifteen or twenty years?

2129 A. Yes, sir; I have been acquainted with some people in the town of Preble within the last fifteen or twenty years.

Q. 45. Do you know Moses Tallman, and did you know William E. Tallman, in his lifetime, who resided in the town of Preble?

A. I knew one or two Tallmans there, but I do not remember their first names now.

Q. 46. Did you ever hear of either of the Tallmans ever claiming to have made a driven well prior to 1861?

A. I do not now remember it.

Q. 47. Did you ever hear of such a thing as a driven well prior to the one that was made or caused to be made by Colonel Green here in Cortland about the time the regiment was encamped here, in the fall of 1861?

A. That is the first I ever heard of it.

Q. 48. On the trial of the indictment of Colonel Green, in 1866, were not eminent counsel employed to assist the district attorney?

A. I so understood it at the time, from my best recollection; these things were a good while ago.

Q. 49. Please state the intensity of feeling produced at the time of the trial of Colonel Green on the indictment.

A. It was extremely high—at fever heat.

Direct examination of this witness closed.

2130 Cross-examination:

X Q. 50. About what was the population of the village of Cortland from 1861 to 1865?

A. My best recollection would be about two thousand; that is an estimate.

X Q. 51. About what was the population of the village of Homer at about that time?

A. I should think it was about the same; in 1860 I think Homer was the largest; in 1865 they were about equal; these are only estimates.

X Q. 52. What was the character of the mercantile business done by you?

A. Dry goods, groceries, crockery, and hardware.

X Q. 53. About what was the extent of your mercantile business, annually, during the period from 1861 to 1865?

A. About a hundred thousand a year; sometimes a little more and sometimes a little less.

X Q. 54. State whether or not you devoted your entire time and attention to this business during the period mentioned.

A. I devoted the most of my time to it. I had some other business, but that was my main business.

X Q. 55. What other business?

A. I think I built a house about that time; perhaps it was before that time.

X Q. 56. Do you remember the year in which you built the house mentioned by you?

A. I do not.

X Q. 57. What is your best recollection as to the year?

A. My recollection is that it was in 1860 or 1861.

X Q. 58. Was there a driven well constructed in or about that house at about the time it was erected?

A. I cannot remember.

X Q. 59. What is your best recollection as to the construction of a driven well in or about that house at the time of its erection?

A. I do not remember.

X Q. 60. How many houses have you built in this village since January 1st, 1861?

A. Some eight or ten, built and repaired; that is my best recollection.

2131 X Q. 61. In how many of these houses were driven wells constructed at the time of their erection?

A. I think in seven or eight of them.

X Q. 62. Was there a driven well afterwards constructed in the house built by you in 1860 or 1861, as you have stated?

A. I could not say; I sold the house at about that time.

X Q. 63. Can you say whether or not there is a driven well now in that house?

A. I cannot.

X Q. 64. What did you see Colonel Green do, with reference to the organizing and equipment of the 76th regiment, so called?

A. My recollection would be that I saw him giving orders at the drills in the hall; I saw him going to and from the camp and town; he was in my store frequently in connection with business of the regiment or his own; the regiment had an account there.

X Q. 65. When you saw Col. Green giving orders to a drill squad was prior to the formation of the regiment, was it not?

A. Yes, sir.

X Q. 66. How long prior?

A. I should think it must have been three or four months; I could not fix the time.

X Q. 67. Did not the drilling commence soon after the battle of Bull Run, in July, 1861?

A. My recollection would be that it commenced earlier—in May or June; but it might not be.

X Q. 68. Did you know Heman F. Robinson?

A. I think I did.

X Q. 69. Did he enter the service as a volunteer in the 76th regiment?

A. I understood he entered the service; I do not remember in what way; my recollection would be that it was the 76th regiment; I think I saw him drilling in the hall.

X Q. 70. What was his business prior to his entering the service?

2132 A. My recollection would be that he was a surveyor, draughtsman, or engineer, or something of that kind; I think he kept books.

X Q. 71. He had been a cadet at West Point, had he not?

A. I do not recollect.

X Q. 72. What is your impression about it?

A. My impression is that he knew more about drilling than some of the rest of them.

X Q. 73. What persons do you now recollect, so as to be able to name them, took principal or prominent parts in conducting the squad drills at Squires' Hall, in 1861?

A. I don't remember the dates, but I have no doubt it was in 1861; Col. Green, Mr. Mudge (Byron Mudge), H. F. Robinson, and J. C. Carmichael; I presume there were others, but I do not now call them to mind; those were the most prominent.

X Q. 74. Were not Ami Todd and Henry Woodruff also somewhat prominent in the instruction of these squads?

A. It is probable; there were others, but I do not remember who.

X Q. 75. Was not Mr. Henry Woodruff employed in drilling squads at the camp on the fair ground during the formation and organization of the 76th regiment?

A. I could not tell.

X Q. 76. Not all of the persons engaged in squad drill at Squires' Hall in 1861 did so with the view of entering the 76th regiment, did they?

A. I could not say.

X Q. 77. Mr. Henry Woodruff and Ami Todd did not enter the service during the last war, did they?

A. Not from my knowledge; I know that Woodruff did not.

X Q. 78. Mr. J. C. Carmichael entered the service in the 157th New York Volunteers, did he not?

A. I could not say.

X Q. 79. Byron Mudge entered the service in the 185th New York Volunteers, did he not?

A. I could not say.

2133 X Q. 80. Neither Mr. Carmichael nor Mr. Mudge entered the service in the 76th Regiment New York Volunteers, did they?

A. I could not say.

X Q. 81. What is your best recollection on that subject?

A. I recollect that they entered the service, but in what regiment I do not remember.

X Q. 82. At the time or up to the time the 76th regiment left the camp at the fair ground for Albany, in December, 1861, none of the persons acting as officers of the regiment held any commission as such from the State of New York or the United States, to your knowledge, did they?

A. I do not know; not to my knowledge.

X Q. 83. Do you know by whom the barracks for the camp at the fair ground were constructed and to whom the bills for material and labor employed therein were made?

A. No, sir.

X Q. 84. Have you not understood that these barracks were constructed by Col. J. C. Carmichael and that the bills for labor and materials employed in constructing the same were made out to him or in his name?

A. I have no recollection about it.

X Q. 85. You say that the regiment had an account at your store. In whose name and how was that account kept?

A. I cannot tell you now. My best recollection would be that it was in the name of the "76th regiment."

X Q. 86. Was there any arrangement or understanding with you as to who should be responsible for and pay for the goods purchased upon that account in case the State of New York or the United States should fail or refuse to provide for and pay the same?

A. I could not tell now. I presume that I had some satisfactory assurance or I should not have parted with the goods, but what it was I do not know now.

X Q. 87. Is it your best recollection that you had such assurance from some responsible individual or individuals other than the State authorities?

A. My best recollection would be that some State authority was shown me that they would see it paid.

2134 X Q. 88. What was the nature or character of the assurance; was the same in writing; and, if so, was the same delivered to you as an evidence of liability from the State for the goods sold and delivered by you for the use of the 76th regiment;

and, if you have the same now in your possession or custody, will you please produce it at the time to which this proceeding shall be adjourned or account for and explain its loss?

Proceedings adjourned until Wednesday, August 25th, 1880, at 9 o'clock a. m., at this place.

WEDNESDAY, *August 25th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: Noah J. Parsons, Esq., for complainants, and John W. Suggett, Esq., for defendant.

Proceedings adjourned until Thursday, August 26th, 1880, at 10 o'clock a. m., at this place.

THURSDAY, *August 26th*, 1880—10 o'clock a. m.

Convened pursuant to adjournment.

Present: William D. Andrews, Esq., one of the complainants.

Proceedings adjourned until 2 o'clock p. m.

2 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: William D. Andrews, Esq., one of the complainants.

Proceedings adjourned until Friday, August 27th, 1880, at 9 o'clock a. m., at this place.

2135 FRIDAY, *August 27th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

2136 JAMES S. SQUIRES produced by complainants for further cross-examination by defendant's counsel.

A. I have been unable to find the assurance in writing mentioned in cross-question 88, and have no recollection of such assurance in writing.

X Q. 89. Do you recollect by whom the goods charged to the account of the 76th regiment were purchased and to whom the same were delivered?

A. I do not. I cannot say.

X Q. 90. Have you examined your books since the adjournment for the purpose of refreshing your memory and ascertaining 2137 as much as possible concerning this account referred to by you as the account with the 76th regiment?

A. I have examined a portion of my books.

X Q. 91. Did you find a ledger containing your mercantile accounts for the years 1860, 1861, and 1862?

A. I found one ledger containing a portion of them. I was having two ledgers at that time.

X Q. 92. Did you find any memorandum or entry contained in this ledger tending to show that the goods furnished the said regiment were delivered upon the order of Colonel Green or any other person connected with the regiment?

A. I did not.

X Q. 93. There was a committee of this county called the "war committee" at that time, was there not?

A. There was a war committee.

X Q. 94. Do you remember who that committee was?

A. I do not; except that Delos McGraw, I think, was one.

X Q. 95. Did you have any dealings with the war committee as a committee?

A. I could not say certainly whether I did or not. It might have been that the account was kept with them. I have no recollection and cannot gather anything from my books.

X Q. 96. Was not the assurance that you should be paid for goods furnished the 76th regiment made by the war committee of Cortland county or some of its members? What is your best recollection or impression upon this point?

A. I have no recollection about it, but it might have been from them.

X Q. 97. Do you not regard it as extremely probable that this was the case?

A. I have no real recollection about it.

X Q. 98. Did you have an account with the war committee?

A. I did not find any upon the one ledger that I found.

X Q. 99. When did your acquaintance with Col. Green begin?

2138 & 2139 A. I cannot tell.

X Q. 100. Was it before or after the commencement of the war; if before, about how long previous?

A. A short time before the war broke out; it might have been a year or two. I cannot say.

X Q. 101. Where did he reside when you made his acquaintance?

A. I cannot say exactly. I remember him living opposite the carding-mill, but whether it was when I first made his acquaintance or not I do not know.

X Q. 102. Where and on what occasions did you make his acquaintance? State, if you recollect.

A. My best recollection is that it was in my store that I first made his acquaintance.

X Q. 103. Did you meet him in society here and in social circles?

A. Not particularly; only as I did other men in the streets or on business.

X Q. 104. Did you meet him frequently to have conversation with him in your store or upon the streets of Cortland?

A. I should think only occasionally; he was not very often in.

X Q. 105. Did you discuss war news with him frequently during the war when you met him?

A. I think I did. He was quite a hand to talk about it, according to my recollection.

X Q. 106. What business or avocation did he pursue while residing in Cortland, if any?

A. I do not know. I heard that he wrote a book.

X Q. 107. Did he follow any other pursuit to your knowledge, except his connection with the regiment, either before or after the commencement of the war?

A. Nothing but his suit in regard to the McNett affair that I know of.

X Q. 108. You would not call that an avocation, would you?

A. No, sir.

2140 2 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

2141 Cross-examination of JAMES S. SQUIRES renewed:

X Q. 109. Did you visit the camp at the fair grounds while it was occupied by the 76th regiment?

A. I think I did.

X Q. 110. How many times?

A. I could not tell.

X Q. 111. Did you see Colonel Green at the camp?

A. My best impression is that I did, but I would not be certain.

X Q. 112. Do you recollect seeing him do anything at the camp?

A. I could not now say that I did.

X Q. 113. Do you know, of your own knowledge, what he did respecting the raising and organizing of the 76th regiment?

A. Not except what I saw him drilling or having charge of the drills at Squires' Hall.

X Q. 114. That was several months before anything was done about the raising of the 76th regiment, was it not?

A. It was before, but how long before I cannot say.

X Q. 115. Did you ever converse with Colonel Green upon the subject of driven wells; and, if so, when?

A. I presume I have, but cannot recall any particular time.

X Q. 116. Can you recall anything that he said to you on that subject?

A. I cannot.

X Q. 117. Have the complainants issued licenses to you for the wells constructed in the houses built by you?

A. Some of them.

2142 X Q. 118. Were they issued gratuitously?

A. They were; they were sent to me.

X Q. 119. For how many wells?

A. I do not remember the number; quite a number.

X Q. 120. When were they issued to you?

A. I cannot give the date; it was about the time they were collecting royalties here.

X Q. 121. Were you sworn in the case of William D. Andrews *et al. vs.* Carman, in 1872 or 1873, in an action for infringement of the driven-well patent?

A. I could not say; I was once sworn in a case, but could not say when it was, or who were the plaintiffs or defendants.

X Q. 122. Were you sworn and examined in that case in this village, before Charles S. Thomas, a United States commissioner then residing here?

A. I was sworn in this village and before Mr. Thomas, a commissioner, as I understood it.

X Q. 123. By what counsel were you then examined? Please give the name.

A. My best recollection is that Mr. Goodrich was one of them, but I cannot be positive; I do not recollect the others.

X Q. 124. Have you refreshed your recollection recently by reading a printed copy of your examination on that occasion?

A. Yes, sir.

X Q. 125. When?

A. I cannot give the date; within a week.

X Q. 126. Was your attention called by counsel for complainants to the subjects about which you were to be examined?

A. No particular subject; simply the testimony.

X Q. 127. Where and of whom did you obtain the printed copy of the record containing your evidence given before Commissioner Thomas?

A. Mr. Parsons left it at the bank in my absence, as I was informed by the clerks in the bank.

X Q. 128. Who spoke to you about being a witness for the complainants in the case in which you were examined before Commissioner Thomas?

2143 A. I cannot tell.

X Q. 129. Were you in the room of William D. Andrews, at the Messenger House, before your examination before Commissioner Thomas, and was the subject of your evidence then to be given alluded to or discussed?

A. I could not say for certain, but my best impression is that it was either there or at the bank that the matter was talked over; I am not certain.

X Q. 130. With whom did you talk it over?

A. I could not say who was present.

X Q. 131. Was the matter discussed with you on more than one occasion previous to your being sworn?

A. I could not tell.

X Q. 132. Was your attention called to the subjects about which the complainants proposed to examine you previous to your being sworn?

A. I presume it was, but I do not remember how, or in what way, or who did it.

X Q. 133. Do you know of your own knowledge of any matter or business in which J. C. Carmichael, Byron Mudge, and H. F. Robinson acted as the agents, servants, or assistants of Colonel Green, after the 76th regiment went into camp on the fair ground?

A. I could not say positively that they did.

X Q. 134. Had you any knowledge of the McNett affair other than what you derived from reading the newspapers and the statements of individuals?

A. No, sir.

X Q. 135. Is it your recollection that a majority of the citizens of Cortland took sides for Colonel Green in the McNett affair?

A. It would be my best recollection.

X Q. 136. And did he not have the aid, sympathy and assistance of a large number of prominent citizens of this place, in respect to the matters growing out of the McNett affair?

A. I should think he did—the moral aid and assistance; they also gave him pecuniary aid when his barn was burned.

X Q. 137. There was no demonstration of physical force, 2144 or of a riotous character, against Colonel Green at the time of the shooting of McNett, was there?

A. I do not remember the particulars; it seems as though there was something about burning him in effigy, but I do not remember when it was.

X Q. 138. In answer to direct question No. 16, which was, "Was trouble apprehended from this affair, either from the citizens or soldiers?" you answered, "There was." Please explain what you meant by that.

A. I meant that there was a strong excitement, and some fears were expressed that buildings would be burned, women's lives in danger, etc.; some went so far as to think Colonel Green was crazy.

X Q. 139. Was it apprehended that Colonel Green would use the military force in camp against the citizens of the place?

A. Some claimed that he could.

X Q. 140. Was it not rumored that he had threatened so to do?

A. My best recollection is that there was something of that kind; I cannot say what exactly.

X Q. 141. And did not the apprehension of danger on the part of the citizens arise, in part, at least, from the rumored threats of Colonel Green that he could or would lay the town in ashes?

A. I remember that there was great excitement, and rumors of that nature; I could not tell precisely what they were.

X Q. 142. Did not the excitement abate very much after the removal of the regiment to Albany?

A. I think it did.

X Q. 143. And there was very little excitement about this affair until the trial of Col. Green for the shooting of McNett, was there?

A. I think not; there were strong partisans for both sides, but no great excitement manifested.

X Q. 144. There were no proceedings in lunacy against Col. Green; he was not treated for insanity, or confined in an insane asylum, and no committee over his person or property was appointed, was there?

A. Not to my knowledge.

2145 X Q. 145. Did you ever hear of any such proceedings?

A. No, sir.

X Q. 146. The charge of insanity was merely the extravagant expression of opinion of people who regarded his conduct as intemperate and improper, was it not, as a usual thing?

A. I think his odd manner of dressing and his passionate manner of talking may have led people to talk about him as being insane.

X Q. 147. He was violent and vehement in his expressions, was he not?

A. I think he was passionate, earnest, and he appeared determined in his manner of expressing himself.

X Q. 148. He was rather an eccentric character, was he not?

A. I should so consider him.

X Q 149. And was rather inclined to adopt some hobby as his subject of conversation, was he not?

A. I think he was, according to my best recollection.

X Q. 150. He possessed a large amount of self-esteem and was rather egotistical, was he not?

A. I think he was so considered by a good many.

X Q. 151. He had a large, athletic, and robust physical frame and apparent good health, had he not?

A. I should think he was of fair size. As to his health, I have heard that he was injured in some way and drew a pension.

X Q. 152. Do you remember when he returned from the army?

A. I do not.

X Q. 153. Do you remember where he lived immediately after his return from the army?

A. I do not.

X Q. 154. He did as much business after his return from the army as he did before entering the army, did he not?

A. I could not tell.

X Q. 155. You stated on your direct examination that Colonel Green had an account at your store which ran a considerable time without settlement. When did that account begin and when was it closed?

2146 A. I think his account began in 1858. There was a settlement in 1860, 1861, or 1862, I think. Then it commenced again and ran until 1867, when it was closed.

X Q. 156. You say on your direct examination that you remember hearing it (the driven well) talked about some about the war times. Whom do you recollect to have heard say anything about it?

A. I do not remember and could not tell who.

X Q. 157. Can you not give the name of a single person whom you heard talk about it?

A. I cannot at the present time.

X Q. 158. Can you recollect to state where you heard it talked about?

A. I cannot now.

X Q. 159. What do you recollect to have heard said regarding the well at the fair ground, if anything, and when and by whom was it said?

A. I recollect hearing a rumor that there was a well at the fair ground. I cannot tell when or where it was or who said it.

X Q. 160. Do you recollect of hearing that James Suggett had constructed a driven well in the cellar of G. N. Copeland's grocery store, on Main street, in this village, about the time it was constructed?

A. I remember that Mr. Suggett had something to do with the driven well, but at what particular times or places I cannot say.

X Q. 161. What do you remember to have heard with reference to the construction of driven wells by James Suggett?

A. I remember hearing that he was in the business of driving wells and succeeded in getting good and durable water.

X Q. 162. When did you hear that, with reference to the time of Green's trial upon the indictment for the shooting of McNett?

A. I could not tell.

X Q. 163. How soon after Green's return from the army?

A. I have no means of knowing.

X Q. 164. Can you not approximate?

2147 A. I could not; I neither know when he returned from the army or when his trial was.

X Q. 165. When did you take possession of the block known as the "Squires' block?"

A. In 1860 or 1861; my impression is in the spring of 1860 or 1861.

X Q. 166. Would the date of that deed enable you to fix the time?

A. It would not.

X Q. 167. How did you obtain title?

A. I obtained title through a foreclosure made by Joseph Reynolds.

X Q. 168. Was this foreclosure commenced before or after your contract of purchase?

A. After.

X Q. 169. Did you have a driven well constructed in your store in that building; if so, by whom was it constructed and with whom did you contract therefor?

A. I did; my best recollection would be that Robert Dalton drove it.

X Q. 170. Did you understand that Mr. Dalton drove the well under some arrangement made by him with Mr. Suggett?

A. My recollection would be that he had some arrangement or right to drive it from Mr. Suggett. Mr. Dalton was often at work for me. Mr. Suggett was not.

X Q. 171. Mr. Dalton was a brother-in-law of Mr. James Suggett, was he not?

A. That is as I understand it.

X Q. 177. About how long after you took possession of the Squires' block was this well made?

A. I cannot tell.

X Q. 178. Can you not tell within two or three years?

A. My recollection would be that it was within from two to five years after.

X Q. 179. In what part of the building was this well constructed and where was the pump situated?

A. In the east part of the building—inside, back of the office, first floor; the pipe ran down into the cellar by the post of the outside cellar door.

2148 X Q. 180. Was it in plain view to persons coming to your store to trade?

A. Yes, sir; if they stepped around to the back side of the office.

X Q. 181. Was water frequently procured therefrom by customers coming there to trade and others?

A. Yes, sir.

X Q. 182. Is this well at present in operation?

A. Yes, sir.

X Q. 183. And has it been since its construction?

A. There was a time that the tenants took off the pump and did not use it; it has been there all the time; as long as I was in the store it was used.

X Q. 184. When did you vacate the store?

A. My partnership expired in 1872. I went to the bank, personally, three years before that—in 1869.

X Q. 185. And was this well in operation from the time of its construction up to 1872?

A. I think it was.

X Q. 186. Can you remember to recall any of the conversation which occurred at the time you contracted for the construction of this well?

A. I cannot.

X Q. 187. Do you remember what led or induced you to have the same constructed?

A. I do not, only that it would be convenient to have it and as they were getting them about and driving them so handy.

X Q. 188. You had, then, heard of the successful construction of driven wells by Mr. Suggett or Mr. Dalton previous to the construction of this one, had you not?

A. Yes, sir.

X Q. 189. About how long previous?

A. I could not tell.

X Q. 190. State what your acquaintance was with William E. and Moses Tallman, if any.

A. It was very little. I simply knew them as the Tallmans, of Preble. I was on speaking acquaintance with them. I did not know their given names.

X Q. 191. Can you now remember any conversation you had with either William E. or Moses Tallman?

2149 A. No, sir.

X Q. 192. Were you ever at the residence or upon the premises of either one of them?

A. Not to my knowledge now.

X Q. 193. Up to 1865 they did not usually come to Cortland to make their purchases of goods and articles of domestic use, did they?

A. I could not say.

X Q. 194. The village of Homer was at that period as large or larger than the village of Cortland, and about three miles nearer to the place of their residence, was it not?

A. I should think it must have been about the same in population, but it is only an opinion. The distances are correct. Of course, we had courts, county clerk's office, and conventions here that they would not have at Homer.

X Q. 195. Your acquaintance with the Tallmans was only of a business character, was it not?

A. Yes, sir.

X Q. 196. How frequently did they come to your store on business prior to 1865?

A. I cannot tell.

X Q. 197. Should you say that they came as often as once in a year?

A. They might and they might not.

X Q. 198. Was it not customary and usual in this village, from and after the year 1863 and commencing at about that time, when a building of any kind was to be erected, after the cellar was dug and before the walls were laid, to construct a driven well from which to procure water wherewith to prepare mortar or cement for the construction of the foundation or cellar walls?

A. It has been customary for some time, but how far back I am unable to tell, unless they had water very near by.

X Q. 199. What was the trade or business of the Mr. Dalton who constructed your well?

A. He has been a stone mason a good many years. I cannot say certain whether he was at that time or not?

Cross-examination of this witness closed conditionally.

2150 Redirect examination:

R. D. Q. 200. Did you contribute ten dollars for Colonel Green at about the time of the burning of his barn?

A. To my best recollection, I did.

R. D. Q. 201. You say that the excitement somewhat subsided some time after the regiment left. Now I ask you if between the two parties—for and against Colonel Green, occasioned by the shooting of McNett—there was not considerable feeling kept up and bitter expressions of animosity made against Green by his opponents down to the time of his trial on the indictment?

A. There was a very strong partisan feeling kept up between the two parties—for and against Colonel Green—more or less down to the time of trial. There were occasional expressions of bitter animosity against Green by his opponents. Much of the excitement went down when the regiment left.

R. D. Q. 202. Even to this late day are there not occasional expressions of animosity or feeling against Greeen by his opponents arising from the shooting of McNett and the affairs connected therewith?

A. I think occasionally there is. It is very rare, though; it has pretty much subsided.

R. D. Q. 203. You say you think that Green had "hobbies." Was not that from his constantly talking about his troubles and difficulties and the excitement evinced while so talking?

A. That is what I call a "hobby"—thinking and talking upon one particular subject.

R. D. Q. 204. You say that there was something rumored that Colonel Green had threatened that he would or could use the
2151 military force against the citizens here. Were not those rumors widely circulated by his opponents, as you understood?

A. I should think they were quite freely circulated by his opponents.

R. D. Q. 205. Was Colonel Green an intensely loyal man to the flag of the country during the years of the civil war?

A. He was a very strong partisan through the war and always got excited in his conversation about it.

R. D. Q. 206. In speaking of the war during those years would he invariably run off into his troubles and state what he would have done in relation to certain movements and battles if he had not been deprived of his command, as he claimed, unjustly, and show a great deal of feeling and excitement in regard to it?

A. My best recollection is that he would often run off into the subject when talking, and he always exhibited more or less feeling—frequently quite intense.

R. D. Q. 207. Did the well in your store spoken of come up through the floor from the cellar? I mean the pipe therefrom.

A. Yes, sir.

R. D. Q. 208. The pump was an ordinary cast-iron pump, was it not?

A. It was a cast-iron pump.

R. D. Q. 209. And the pump was situated on a sink, was it?

A. Yes, sir.

R. D. Q. 210. Could anything be seen of it except the pump from your store?

A. I think the pipe could be seen under the sink; it was not closed up.

2152 R. D. Q. 211. Could any one tell from what was in sight there in the store whether it was a driven well or whether the pipe went into a cistern or a dug well?

A. I should presume not, except they might taste the water; I do not know as they could then.

Redirect cross-examination of this witness closed.

Recross-examination:

R. X Q. 212. Was not the pump used in the construction of the driven well in your store of the variety usually connected to a driven well?

A. I could not say, but presume it was.

R. X Q. 213. Was not this driven well and pump in its appearance similar to that of other driven wells?

A. My best recollection would be that it was.

R. X Q. 214. You kept groceries and stored some of your goods in the cellar or basement of the store, did you not?

A. Yes, sir.

R. X Q. 215. And customers frequently went into the cellar or basement to make purchases, did they not?

A. Yes, sir.

R. X Q. 216. A person observing that the pipe of the well entered the ground in the cellar could readily observe and would be likely to understand that it was a driven well, would they not?

A. They could observe it, and I should think that if they had ever heard about driven wells they would have understood that this was a driven well.

R. X Q. 217. They could easily determine that it was not an open dug well or a cistern, could they not?

A. They could; then there was no vacuum around the pipe; the cellar bottom was close up around it.

R. X Q. 218. At that period of time it was not usual to use an iron gas pipe and a cast-iron pitcher spout to draw water from open dug wells in this county, was it?

A. Not to my best recollection.

2153 R. X Q. 219. This form of pump and gas pipe was usually employed in the construction of driven wells at that time was it not?

A. So far as I can remember.

R. X Q. 220. On whose application did you contribute ten dollars to Col. Green?

A. I cannot tell whether I was applied to or whether I offered and gave it.

R. X Q. 221. Did you sign a subscription paper.

A. I could not tell.

R. X Q. 222. Did you make this contribution with the understanding that it was to be used in the erection of a new barn in the place of that which was burned?

A. I cannot tell.

R. X Q. 223. Col. Green's barn had been burned previous to your making the contribution, had it not?

A. I think it had.

Proceedings adjourned until 7 o'clock p. m.

7 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Recross-examination of JAMES S. SQUIRES resumed:

R. X Q. 224. Col. Green's barn was not burned until some time after his trial in April, 1866, was it?

A. I could not tell when it was burned.

R. X Q. 225. When was it, with reference to his trial upon the indictment for shooting McNett?

A. I do not remember.

R. X Q. 226. You say, on your redirect examination, that there were occasional expressions of animosity against Green by his opponents; do you mean by the expression "his opponents" all those persons who denounced the shooting of McNett as unjustifiable and all those persons who regarded Green as a loafer and a man whose conduct and language made him an unfit associate for gentlemen, and who so expressed themselves?

A. I could not say that.

2154 R. X Q. 227. Whom do you mean by the expression "his opponents?"

A. Those who took exceptions to his conduct and to his manner of expressing himself with reference to the regiment and the war and McNett.

R. X Q. 228. Is it not true that there were many persons in this community who were in favor of a vigorous prosecution of the war, and held opinions upon that subject similar to those professed by Colonel Green, who expressed disapprobation of his conduct in terms more or less severe?

A. I think there were some.

R. X Q. 229. You would not class all persons who expressed disapproval of his conduct and character as his opponents, would you?

A. Generally, I would; there might be exceptions.

R. X Q. 230. Colonel Green's opponents opposed him no further than to speak in disapprobation of the shooting of McNett by him and of his rumored threats that he could or would lay the town in ashes and his intemperate and indiscreet conduct and language generally, and to prosecute him upon his indictment for shooting McNett, and for the recovery of money alleged to be due from him to them, did they?

A. I could not say whether they did or did not; they did not, to my knowledge and remembrance now.

R. X Q. 231. Do you mean to be understood, in your answer to redirect question No. 204, that the rumors circulated in this community that Colonel Green had threatened that he could or would lay the town in ashes was circulated only by his opponents?

A. No, sir; they might have been circulated and discussed more by his enemies than by his friends, but it was talked about by both.

R. X Q. 232. Do you mean to be understood as testifying that in every conversation you had with Colonel Green after the McNett affair he always and invariably ran off into his troubles, or did you have some conversations with him in which his troubles were not mentioned?

2155 A. I could not say that he always ran off into his trouble, but he was more likely than some other men would be to do so.

(Defendant's counsel states that he here concludes the recross-examination of this witness conditionally and here gives notice that a motion will be duly made, if this evidence is attempted to be introduced in this case, to exclude the same upon the grounds heretofore stated, and the defendant's counsel hereby expressly reserves all his rights in the premises and does not hereby waive any of the same.)

Examination of this witness closed.

(S'g'd) JAMES S. SQUIRES.

Sworn and subscribed before me this 27th day of August, 1880.
[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

Proceedings adjourned until 9 o'clock a. m. Saturday, August 28, 1880, at this place.

2156 SATURDAY, *August 28th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

WILLIAM P. RANDALL called for complainants:

2157 Q. 1. State your name, age, residence, and occupation.

A. William P. Randall; aged 57 years; residence, Cortland village, N. Y., and occupation, farmer.

Q. 2. State whether you were president of the Cortland County Agricultural Society in the year 1861.

A. I think I was, sir.

Q. 3. Were you examined in the case of William D. Andrews *et al. v.* Theodore Carman in 1873?

A. I was examined; I cannot recollect the dates.

Q. 4. Was your brother, Henry S. Randall, former secretary of this State, also examined in that case?

A. Yes, sir.

Q. 5. Is he now living?

A. No, sir.

Q. 6. Were you conversant with the raising and organizing of the 76th Regiment of New York Volunteers, raised here in the summer or fall of 1861, and do you know of the arrangement by which the regiment was quartered on the fair ground of the agricultural society of which you were president?

A. Yes, sir.

Q. 7. Please state what the arrangement was.

A. We gave up our fall meeting. They were either invited or obtained permission to occupy the grounds. I think they were invited.

Q. 8. State the military name of the camp of the regiment.

A. I think it was Camp Campbell.

Q. 9. How came it to be named Camp Campbell?

2158 A. It was named after Mr. Campbell, a prominent man living at that time near Utica, N. Y., who took great interest in raising troops, and who afterwards presented Col. Green with a horse.

Q. 10. Who was the colonel of the regiment and active in recruiting and organizing the same?

A. Colonel N. W. Green.

Q. 11. How long have you known Colonel Green, and how familiarly, and to what extent?

A. I should think five or six years before the war and since; I knew him as a neighbor and had business with him; I was then engaged in letting horses.

Q. 12. State whether you knew him from about the time he came to Cortland, during the time that he resided here.

A. I did.

Q. 13. State how often during that period you saw him, and whether or not you were accustomed to see him while he was engaged in the business of raising and organizing this regiment.

A. I saw him quite often; I saw him most every day after he commenced raising the regiment; they had horses of me; he most generally ordered them.

Q. 14. Have you seen him at the camp giving orders and directions in matters relating to the camp?

A. Yes, sir.

Q. 15. Were you knowing to the shooting of McNett by Colonel Green upon the camp ground, occurring in the fall of 1861, through the public notoriety it at once obtained?

A. Yes, sir.

Q. 16. State what the effect of that occurrence was upon the
2159 community in respect to the excitement it created; and
further state whether it divided the people here into parties for and against the Colonel, and what the intensity of the feelings were for and against him that attended that division, if you should state that it existed, and whether it continued down to the time of his trial on the indictment.

A. There was great excitement; it did divide the people here into parties for and against the Colonel; the intensity of feeling was very great and continued down to the time of his trial on the indictment.

Q. 17. State whether you knew of the fact that Colonel Green, after leaving with the regiment in the fall or winter of 1861, returned from the army to Cortland in the spring or summer of 1862.

A. I know that he returned to Cortland after he left the army; it was about that time. I cannot recall dates.

Q. 18. Did you know of his indictment for shooting McNett?

A. Yes, sir.

Q. 19. Do you know that the McNett affair was followed by other controversies or difficulties here involving Colonel Green and growing out of that affair and out of his military position as colonel of that regiment?

A. I know that one party persecuted him and the other tried to sustain him; he was sued and put to all the inconveniences that one party could to another, and on the other hand he was sustained. He was jeered in the streets and hooted at.

Q. 20. Was there a great deal of animosity and feeling exhibited by the enemies of Colonel Green and bitter expressions of hatred made against Colonel Green during those years of his troubles arising from the McNett affair?

2160 A. Yes, sir.

Q. 21. Was Colonel Green involved in lawsuits arising out of those difficulties? State what you understand and know about it.

A. He was sued for his debts; that is all; little matters of that kind; I do not recollect any other suits.

Q. 22. Did you understand those suits to be for debts contracted for the benefit of the regiment, and, as Colonel Green claimed, the State was liable therefor?

A. I cannot answer that question because I do not know; I only know that he was sued, but do not know the particulars.

Q. 23. State whether, so far as you observed, Colonel Green did or did not, after his return from the army, mingle as freely and as generally in society and in conversation with the people here, down to the time of his trial on the indictment, as he had previously done.

A. He did not.

Q. 24. Now state, Mr. Randall, from what you saw and observed of Colonel Green during that period, what the effect was on the mind and conduct of Colonel Green produced by the McNett affair and the difficulties growing out of it and under the popular excitement which prevailed during that period.

2161 A. He appeared to me to be a poor, broken-down man in mind and body.

Q. 25. Do you know of his engaging in any business after his return from the army down to the time of his trial on the indictment, except so far as he might have been employed in preparing for his defense to the indictment, and to his other troubles which you have referred to?

A. No, sir.

Q. 26. Do you remember of hearing of the burning in effigy of Colonel Green during his troubles here in Cortland?

A. I might and might not; I do not now recollect; there was so much said and done at the time.

Q. 27. Did Colonel Green engage horses of you during the time of those difficulties; and, if so, what for?

A. During the raising of the regiment he hired horses for the use of the regiment, as I understood, and during the pendency of his trial he had horses to subpœna witnesses or said to be for that business.

Direct examination of this witness closed.

Cross-examination:

X Q. 28. You say on your direct examination you were conversant with the raising and organization of the 76th regiment; what do you know about it?

A. I only know as I have before stated.

X Q. 29. Had you anything to do with raising the 76th regiment?

A. No, sir.

2162 X Q. 30. Aside from the giving up of the fair ground as a camp for the regiment, and what you saw by occasional visits to the camp and heard in various ways, do you know anything of your own personal knowledge about the raising of the 76th regiment? If so, state what you know on that subject.

A. I do not know anything different.

X Q. 31. When did Colonel Green come to Cortland to reside?

A. I could not tell the year he came. My impression is that it was some five or six years before the raising of the regiment.

X Q. 32. Did you know him before he came here to reside?

A. No, sir.

X Q. 33. How soon after he came here before you made his acquaintance?

A. Very soon after.

X Q. 34. Do you recollect how your acquaintance with him commenced?

A. I think in a business way; hiring horses or something of that kind.

X Q. 35. What business relations did you have with him during his residence here?

A. Nothing but connected with the livery business.

X Q. 36. Was it your custom to meet him in a social way while he resided here; and, if so, about how frequently?

A. Yes, sir; I could not say how often; occasionally.

X Q. 37. At what places did you meet him thus—socially?

A. I have met him at my house, and I think I have met him at the houses of my friends, and on the street. They were calling acquaintances of ours.

X Q. 38. Were your family and his on terms of social intimacy?

A. Yes, sir.

X Q. 39. Did this intimacy continue after the shooting of McNett, and were your relations as cordial after as before that affair?

2163 A. I think that he did not go into company after that and was very little in society. I think that his family were calling acquaintances.

X Q. 40. Do you wish to be understood as swearing that you did not meet him in society here in Cortland after the shooting of McNett?

A. Oh, I met him in the street and in a business way, but did not talk with him much, as his topic was always upon his troubles and I did not want to hear them. I rather avoided having any conversation with him.

X Q. 41. Did you avoid having any conversation with him because of any personal difficulty between yourself and him, or because he was a disagreeable associate?

A. I did not avoid him because of any personal difficulty between ourselves, but because I did not want to hear him talk of his troubles.

Proceedings adjourned until 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.
Present: As before.

Cross-examination of WILLIAM P. RANDALL resumed:

X Q. 28. During your direct examination you mentioned having a personal quarrel with Green which was not taken down in your evidence. State what there was about that.

A. I met him one day between here and the camp and stopped him. He was driving one way and I the other. I asked him who was to pay for the horses which were being ordered to be charged to the encampment. He made some reply. I told him I wanted to
know who was to pay. He stated he had a right to take the
2164 horses if he pleased, and there was a war of words for a few
minutes. That was all there was of it. I never had any more trouble with him about it.

X Q. 29. When was this altercation between yourself and Green, with reference to the time of his shooting McNett; I mean was it before or after?

A. It was before.

X Q. 30. About how long before?

A. I could not say.

X Q. 31. Was it while the 76th regiment was encamped at the fair ground?

A. Yes.

X Q. 32. Did you meet Colonel Green as frequently after his return from the army as you did previous to the formation of the 76th regiment?

A. I do not think I did.

X Q. 33. Where did he live during his residence in Cortland?

A. I think most of the time across the road from Dibble's factory; it strikes me that he lived in some other place before he went there, but I do not recollect now.

X Q. 34. Did he not move his family from the Etz place, opposite Dibble's factory, into Daniel Bradford's house, then situate on the present site of Masonic Hall block, on Main street, in this village, just previous to and about the time the 76th regiment was moved to Albany, in December, 1861?

A. I have no recollection of it.

X Q. 35. Do you not recollect Colonel Green and his family lived in the house with Daniel Bradford, which was situated at the place mentioned in last question?

A. I have no recollection of it.

X Q. 36. Will you swear that he did not live in the house with Daniel Bradford?

A. No, sir.

X Q. 37. Do you recollect any conversation you had with Colonel Green after his return from the army in April, 1862?

A. Yes, sir.

X Q. 38. Where was that conversation?

2165 A. In my livery barn.

X Q. 39. What was it about?

A. In relation to hiring horses.

X Q. 40. How long was it after his return from the army?

A. I could not say.

X Q. 41. Was it more or less than a year afterward?

A. Less, I should think.

X Q. 42. Can you relate that conversation?

A. I can relate the substance of it. He wanted to hire horses to prepare for his trial, and wanted credit, because he had no money; I extended credit to him; he represented himself as poor and could not pay then.

X Q. 43. How long a credit did you give him and for what amount?

A. I cannot say how long; the amount was, perhaps, for half a dozen horses and wagons.

X Q. 44. About what was the amount of the bill?

A. I could not tell; it might have been ten dollars and might have been fifteen; it was not a large amount.

X Q. 45. Did he pay the bill; and, if so, when?

A. He paid the bill; I cannot say when; it strikes me after his trial.

X Q. 46. Did he pay it within a year, or was it more than a year after it was incurred?

A. I should say within a year.

X Q. 47. When did this trial occur, according to your best recollection?

A. I could not give the date.

X Q. 48. About how long after the shooting of McNett?

A. I could not say; I could not give dates.

X Q. 49. Did you see Colonel Green on the streets of Cortland frequently after his return from the army, in April, 1862?

A. Yes, sir; I saw him occasionally.

X Q. 50. Do you know what he was doing at that time?

A. Judging from his business with me I suppose he was preparing for his trial.

X Q. 51. Do you mean to be understood as swearing that
2166 he was engaged in preparations for his trial during his whole
time after his return from the army, in April, 1862, until his
trial occurred, in April, 1866?

A. I never knew him to do anything else.

X Q. 52. Did you ever know him to be engaged in any business previous to the raising of the 76th regiment?

A. I understood that he had studied law or was studying law; I do not know that it was from personal knowledge.

X Q. 53. For how long a period do you understand he studied law previous to the raising of the 76th regiment?

A. I could not say.

X Q. 54*a*. Was it more or less than a year?

A. I could not say.

X Q. 54. Have you no recollection about the time?

A. No, sir.

X Q. 55. Do you recollect any conversation other than that you have mentioned which you had with Colonel Green after his return from the army?

A. He came several times for horses and always had something to say, but nothing that I recollect particularly; it was about witnesses or something of that kind.

X Q. 56. Do you recollect any conversation with him other than that connected with your business?

A. No, sir.

X Q. 57. Have you ever conversed with him upon the subject of driven wells?

A. No, sir.

X Q. 58. What orders do you recollect to have heard him give at the camp to or in relation to the regiment or its officers?

A. I have heard him at his headquarters directing his men to do this and that; nothing particular that I remember; no particular orders.

X Q. 59. Do you recollect the name of any person to whom he gave orders or directions?

A. No, sir.

X Q. 60. On how many occasions do you recollect hearing him give orders?

A. I could not say.

2167 X Q. 61. Will you swear that you did on more than one occasion?

A. Yes, sir.

X Q. 62. Was he profuse of his orders?

A. I should judge so.

X Q. 63. And domineering and dictatorial in his manner?

A. I could not say.

X Q. 64. The excitement occasioned by the shooting of McNett by Col. Green subsided very much after the removal of the regiment to Albany, did it not?

A. Well, no; I do not think it did; there was not as much clamor about it, but it was deeper seated among those who took part in it.

X Q. 65. But there were fewer persons who took part in it, were there not?

A. Well, perhaps there were less.

X Q. 66. Was not much of the public excitement due to the assumption and arrogance of Col. Green and his rumored threat that he could or would lay the village of Cortland in ashes and similar remarks on his part?

A. I think it was; I did not know that he threatened to lay the village in ashes, but his imprudent speeches created disgust with him.

X Q. 67. Did he not threaten to have some of the citizens arrested and incarcerated in Fort La Fayette, and did he not attempt to accomplish that purpose?

A. I heard rumors of such things, but I was not aware that he ever attempted to arrest anybody.

X Q. 68. He had a proclivity or genius for getting into personal quarrels and difficulties, did he not?

A. He was a pretty positive man, and would like to have his own way.

X Q. 69. He was an eccentric character, was he not?

A. I should think so.

X Q. 70. Inclined to have a hobby, was he not?

A. I never knew of his having any hobby, except his military career.

X Q. 71. Who constituted the different parties into which you say people were divided in relation to his shooting McNett?

2168 A. I could not say; there were good men and bad men on both sides.

X Q. 72. Whom do you mean when you speak of the opponents and enemies of Col. Green?

A. A fair average of the community. I do not know but there was as good men on one side as on the other.

X Q. 73. Do you mean by the enemies and opponents of Col. Green those who denounced the shooting of McNett as unjustifiable and criticised his intemperate acts and language?

A. Yes, sir; I consider them as opponents.

X Q. 74. You did not mean by the words "opponents" and "enemies" those who had personal difficulties, disagreements, or quarrels with him, did you?

A. I should think they were opponents.

X Q. 75. Do you limit the words to them or include those who criticised his conduct?

A. There might be men who criticised him who would not be his opponents, but I should think those who criticised him strongly would be his opponents.

X Q. 76. What persons do you remember to have had any personal difficulties of such a character as to entitle them to be called his personal enemies?

A. I do not know of any one.

X Q. 77. All you mean, then, by the public being divided into parties for and against Col. Green by the McNett affair is that some persons justified the shooting of McNett by Green and others thought it unwarranted and unjustifiable; is not this so?

A. One party thought he had a right to shoot him or excused him therefor by virtue of his commission and authority at that time, and the other party thought he had no such right. I never heard any respectable man justify his shooting him.

X Q. 78. The suits against Col. Green for debts had no connection with the shooting of McNett, that you know of, did they?

A. It is my impression that he was sued by those who did not like him to worry him and to collect their debts.

X Q. 79. What makes you think he was sued to worry him?

2169 A. Why, it looked like it to me; I know his friends did not sue him.

X Q. 80. He declined to pay these obligations, did he not?

A. That I do not know.

X Q. 81. Do you know how many suits were commenced against him?

A. I do not.

X Q. 82. Do you know that any were commenced against him?

A. Only from hearsay.

X Q. 83. In what did the animosity and feeling by those you term enemies of Col. Green consist?

A. It was growing out of the affair of shooting McNett; they thought he exceeded his orders.

X Q. 84. Mr. Randall, you apparently do not understand my question. I mean to ask you what evidence of animosity and feeling you saw exhibited against Col. Green by his enemies, as you call them?

A. I heard them call him all kinds of names. A public indignation meeting was held against him and speeches made; you could not go into the streets without hearing some one condemn him.

X Q. 85. Where and when was any public meeting held here which you call an indignation meeting?

A. From the balcony of the Messenger House, or it may be the Eagle Hotel, which stood where the Messenger House now stands.

X Q. 86. Who addressed the meeting?

A. That I could not say.

X Q. 87. Do you remember anything that was said in the speeches?

A. No; there was a good deal said, but I can only recollect the tenor of it.

X Q. 88. You say on your direct examination bitter expressions of hatred were made against Colonel Green. Whom do you remember to have made such expressions?

A. Charles Kohler and John Malmberg; Kohler had the most to say and appeared to be the leader.

2170 X Q. 89. What expressions were made by these men at that time which you deem expressions of hatred?

A. I could not say; I do not recollect.

X Q. 90. Can you recollect the names of any persons using expressions of hatred toward Colonel Green at any time after the shooting of McNett and before his trial therefor?

A. I have heard Kohler and I have heard Malmberg and I have heard Dick Cornwell and I have heard scores of others, but I could not give their names.

X Q. 91. Can you recollect what expressions were used by these men indicating hatred of Colonel Green?

A. Oh, I cannot recollect what was said; they called him everything, a would-be murderer, &c.; I have heard Kohler say that in substance scores of times.

X Q. 92. Kohler, Malmberg, and Cornwell endeavored to make political capital for their party out of the affair, did they not?

A. I do not know, sir, what their object was.

X Q. 93. Colonel Green was a man of large and robust frame and apparently robust health, was he not?

A. Yes.

X Q. 94. Has it not been customary in the village of Cortland, since the year 1863 and commencing about that time, when a building was to be erected, after the cellar was dug to construct a driven well from which to obtain water wherewith to prepare mortar or cement in which to lay the cellar and foundation walls, and could not these walls be readily observed by a passer-by upon the streets?

A. I could not tell what date, sir; the first that I ever knew constructed was constructed at my house about eleven years ago; I do not think a man would know it unless he went in where the well was and asked questions about it; the appearance of a driven well with pump attached would not be different from other wells.

X Q. 95. Your house at which you speak of having a driven well made is the one where you now reside, is it?

A. Yes.

2171–2182 X Q. 96. Are you apt to observe things like a driven well so as to comprehend and understand its action?

A. Yes, sir; I should be.

X Q. 97. Do you remember of the construction of a driven well in front of the engine-house in this village by James Suggett with a single pipe some two or three inches in diameter about the year 1863?

A. I do not recollect the year nor who put it down; my impression was that a gang of pipes was put down; there may have been a single pipe before; I have no distinct recollection about it.

X Q. 98. Do you recollect seeing a frame, a sort of pile-driver, standing in front of the engine-house in a position to be used in driving a pipe for a well and an excavation or hole dug in the street at that point?

A. I have no recollection now of it; my business was mostly the other way at that time.

Defendant's counsel closes this cross-examination conditionally.
Examination of this witness closed.

(S'g'd) W. P. RANDALL.

Sworn and subscribed before me this 28th day of Aug., 1880.
[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

Proceedings adjourned until Monday, August 30th, 1880, at 11 o'clock a. m., at this place.

2183 WEDNESDAY, *September 1st*, 1880—2 o'clock p. m.

EUSTACE D. DIBBLE called for complainants.

Q. 1. State your name, age, residence, and occupation.

A. Eustace D. Dibble; aged 36 years; residence, Cortland, N. Y., and occupation, agent for William D. Andrews & Bro.

Q. 2. Where did you reside in 1861, and what was your then business?

A. I resided in Cortland, and my business was then a clothier.

Q. 3. Where was your place of business at that time?

A. North Main street.

Q. 4. Were you acquainted with Colonel Nelson W. Green at that time?

A. I was.

Q. 5. Where did he reside and when did you first become acquainted with him?

2184 A. He resided on North Main street, nearly opposite my place of business. I became acquainted with him some years before. I cannot tell the exact date.

Q. 6. How far was his residence from your place of business and in what direction?

A. Four or five rods, in a northwesterly direction.

Q. 7. Do you remember the raising of the 76th New York Volunteer Regiment in 1861?

A. I do.

Q. 8. Where was the camp of that regiment and how far from your place of business and Colonel Green's residence and on what property?

A. It was in a northwesterly direction, for a quarter to half a mile distance from my place of business, and was on the fair ground.

Q. 9. Do you know anything of a well being made on the premises of Colonel N. W. Green in 1861?

A. I do.

Q. 10. Please state where that well was situated and what you know about it.

A. It was situated between the north end of his house and the barn. I saw a number of men from the shop where I was at work gathered on Colonel Green's premises. I went over where they were. They were engaged in putting a rod or pipe into the ground. I remained until they were through putting down the rod.

Q. 11. Describe the manner in which that pipe or rod was put down.

A. It was put down by forcing it down like a crowbar.

2185 Q. 12. Who were present while you were there looking at them put down that rod or pipe?

A. Colonel Green, a man by the name of Robinson, Byron Mudge, and others whose names I do not recall.

Q. 13. About how long were they engaged in putting down that rod or pipe?

A. I cannot tell exactly; from a quarter to half an hour; perhaps more.

Q. 14. What, if any, conversation did you there hear from Colonel Green or from others in his presence relating to the putting down of that pipe or rod?

A. I cannot give the exact conversation. Several expressed themselves that it would not prove a success. Colonel Green sent some one to town for something. I remember that as connected with it. I do not think of anything more that I can specify.

Q. 15. Who appeared to be in authority and directing the work you saw done?

A. Colonel N. W. Green.

Q. 16. Who, if any members, of the 76th regiment were then present and assisting?

A. Colonel Green, a man by the name of Robinson, acting adjutant, and Byron Mudge.

2186 Q. 17. Were any of the parties who were present and engaged in that work clothed in military uniforms? And, if you say they were, please state who.

A. I think Mudge and Robinson were in uniform.

Q. 18. Was the 76th regiment, at the time of the making of this well, in camp on the fair ground, and were or were not Colonel Green in command of the regiment and Mudge and Robinson officers of the regiment acting under him ?

A. The 76th regiment was encamped on the fair ground and Mudge and Robinson acting as officers under Green.

Complainant, William D. Andrews, on account of his feeble health and having to conduct the examination in person, asks the notary to adjourn the further hearing of evidence to a proper room at the Messenger House, on Main street, in this village, until 10 o'clock on Thursday a. m., September 2d, 1880.

By consent, it was subsequently agreed to continue the examination at this place.

Proceedings adjourned until Thursday, September 2d, 1880, at 10 o'clock a. m., at this place.

2187 THURSDAY, *Sept. 2d*, 1880—10 o'clock a. m.

Convened pursuant to adjournment.

Present: William D. Andrews, for complainants, and Irving H. Palmer, for defendants, as heretofore.

Examination of EUSTACE D. DIBBLE resumed :

Q. 19. State, if you know, what position Mr. Robinson occupied in the regiment.

A. Adjutant.

Q. 20. And what position in the regiment did Mr. Mudge occupy?

A. Lieutenant, I think.

Q. 21. Do you know how deep the rod or pipe was driven into the ground? And, if you do, please state.

A. Three or four feet.

Q. 22. Was there water in the hole made by driving the rod or pipe?

A. There was.

Q. 23. Did you or not at that time have any conversation with Colonel N. W. Green as to the object of driving that rod or pipe into the ground?

A. I did.

Q. 24. Please state what that conversation was.

A. I asked him what he was making there; he replied that he was making a well; I told him I did not believe he would 2188 get a well that way; he replied that he could, or words to that effect; that is the substance of the conversation.

Q. 25. Had you ever previously had any conversation with Colonel Green in regard to his proposed method of procuring water from the earth ? And, if you had, please state what it was and where.

A. I had; Colonel Green was at my father's house and he was talking about the rebels poisoning wells, and he said he had an idea of getting water every night when he camped that would be free from poison—he said by driving a bar or rod into the earth till he reached water, thereby making a well; he illustrated it with a sharpened lead pencil; I told him he could not do it, that he would only get the water in the pipe; he said he could get water in plenty.

Q. 26. Did you or not see a pump there; and, if so, did you or not see it used?

A. I did not.

Q. 27. When you first saw them driving that rod or pipe into the ground did it or not occur to you what was the object of their driving?

A. It did occur to me what was the object of their driving.

Q. 28. What led you to believe that you knew the object of their driving?

A. My previous conversations with Green.

Q. 29. During the years from 1862 to 1866 were you in the habit of meeting Colonel Green, and how intimately were you acquainted with him?

2189 A. From August, 1862, until August, 1865, I was in the army and did not meet Colonel Green; from then until 1866 I met him frequently; I was intimately acquainted with him.

Q. 30. Where were you and where was Colonel Green then living during the time you say you were intimate with him, from August, 1865, to 1866?

A. I was at home; Colonel Green then lived opposite the shop; he moved down town, but whether before 1866 I cannot say.

Q. 31. Previous to 1862 how well were you acquainted with him, and did he then live in the house nearly opposite your shop?

A. I was intimately acquainted with him; he lived in the house nearly opposite the shop.

Q. 32. Did you or not observe any change in Colonel Green's habits in matters of sociality and in regard to usual subjects and matters of conversation after 1862 and during the years 1865 and down to May, 1866? If so, please state.

A. I did; a great change; up to 1862 he appeared interested in matters taking place about him and in carrying on his place and improving it; in 1865 and 1866, up to the time specified in the question, it was impossible to get him to talk on any subject, except his troubles with the regiment and his church troubles; he did not seem to show any interest in any other matters.

Q. 33. Do you know whether or not Colonel Green was engaged in any business from the time you returned from the army in 1862 down to the spring of 1866?

A. I know of none.

Q. 34. Did you or not see him so frequently that you would be likely to have known if he was engaged in any business?

A. I did.

2190 Q. 35. Did you know of the shooting of Captain McNett, upon the camp ground of the 76th regiment, by Colonel N. W. Green, for alleged mutiny, insubordination, and disobedience of orders, during the time the regiment was encamped upon the fair ground, and did you know of Colonel Green's trial before the court here in Cortland, for that shooting, in the spring of 1866?

A. I did know of his shooting Captain McNett and of his trial in 1866.

Q. 36. And do you know what effect the shooting of McNett had upon the public mind here in Cortland and vicinity, and whether or not the community were divided into two parties, the one opposed to Colonel Green's action in shooting Captain McNett and the other upholding and sustaining him for his action in that matter?

A. I do know; the entire community were divided on that question.

Q. 37. And did you know whether or not Colonel Green was connected with the Episcopal church known as Grace church in this village, and whether he had difficulties with the pastor of that church, and whether or not those difficulties resulted in his connection with that church being severed, and whether or not this church difficulty added to or had any connection with the division of the community into parties opposed to and favoring Colonel Green and the excitement consequent thereon?

2191 A. I did know; he was connected with that church, and he did have difficulties with the pastor of that church, which resulted in his connection with that church being severed. I do not know whether it added to the division; it certainly had some connection with it.

Complainant William D. Andrews renews his request that further proceedings be adjourned to the Messenger House, for the reasons hereinbefore stated.

Proceedings adjourned until 2 o'clock p. m., at room 12, Messenger House, Cortland village, N. Y.

2 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Examination of EUSTACE D. DIBBLE resumed:

Q. 38. Please state to what extent these divisions were carried, and whether or not a great degree of bitterness was engendered.

A. As far as I know, all the citizens took a decided position on one side or the other; the feeling was very bitter on both sides.

Q. 39. Were you and your father's family attendant upon the same church, the Episcopal, that Colonel Green was connected with, and were any of your family members of that church; and, if so, who of them?

A. We were attendants at that church and were all members.

Q. 40. What, if any, change did you observe in Colonel Green or his family, in relation to their manner of dress and living, after your return from the army, as compared with their manner of dress and living previous to 1862?

A. They dressed much plainer. I cannot speak about their living.

2192 Q. 41. You have said, in answer to question 32, that it was impossible to get Colonel Green to talk on any subject except his troubles in the regiment and church; now, will you please state what effect this disposition of his to harp upon his own troubles and difficulties had upon his friends and associates, and how they treated him in consequence?

A. In my own case it led me to avoid him as much as possible, and, as far as I know, led others to adopt the same avoidance of him; he got to be something of a bore.

Q. 42. Previous to 1862 what was the character of Colonel Green as regards sociality and being an agreeable and interesting associate and companion?

A. I think he was generally considered a sociable man and rather an interesting talker; he was as agreeable as most men are.

Direct examination of this witness closed.

Cross-examination:

X Q. 43. On your direct examination you stated that you were agent for William D. Andrews & Bro.; when did that agency begin, to what business did it relate, what compensation were you to receive, if any, and what were the terms of the agency?

A. My agency began in August, I think, of 1876; it related to the collection of royalties on driven wells in the county of Cortland; I was to receive a commission of twenty per cent. on the amount collected and was to report my proceedings to William D. Andrews & Bro.

X Q. 44. For how long a period were you engaged to act as agent?

A. Until either party determined the engagement by previous thirty days' notice.

2193 X Q. 45. Have you been engaged in the business of that agency since August, 1876, and has the business of the agency been closed?

A. I have been actively engaged only a portion of the time; I have done no actual business in over a year, but the agency is not terminated by the thirty days' notice.

X Q. 46. Has there been any settlement of the business of the agency between yourself and your principals since your appointment as agent?

A. No final settlement.

X Q. 47. What amount of money have you received for your principals, as their agent for the collection of royalties on driven wells in Cortland county?

A. I could not tell now.

X Q. 48. Approximate as near as you can.

A. I have no means of knowing without looking at my books.

X Q. 49. Where are your books?

A. At home.

X Q. 50. In this village?

A. Yes, sir.

X Q. 51. Will you examine your books at the first opportunity and prepare yourself to give a correct answer to the amount of money you have received from the collection of royalties on driven wells in Cortland county, and will you then answer question number 47?

A. I do not know now.

X Q. 52. Have you received 20 per cent. of the amount you have collected as royalties and for the sale of licenses to make and use driven wells?

A. I have received 20 per cent. of the amount collected by me, except that I only received 15 per cent. for a short time for royalties collected in the corporation of Cortland.

2194 X Q. 53. State what amount you have received as your compensation in the business of the agency you have mentioned.

A. I do not know.

X Q. 54. State as near as you are able.

A. I cannot make any statement without my books and without knowing somewhere near.

X Q. 55. When you have examined your books will you answer question 53, as above requested?

A. I do not know.

X Q. 56. Why do you not know?

A. I have had no time for reflection.

X Q. 57. Is that the only reason why you do not know whether you will answer questions Nos. 47 and 53?

A. Yes, sir.

X Q. 58. Is it not also a reason why you do not know whether you will answer questions numbers 47 and 53—whether your answers thereto will be agreeable to the complainants in this action or otherwise?

A. No, sir; not at all.

X Q. 59. Who compose the firm of William D. Andrews & Bro., and are the members of that firm among the number of the complainants in this action?

A. William D. Andrews & Bro.; I know nothing of my personal knowledge of this action, or who it is brought by or against.

X Q. 60. Do you know the given name of the junior member of the firm of William D. Andrews & Bro.?

A. I know the given name of a brother of William D. Andrews. Whether he is a member of the firm or not I do not know.

X Q. 61. What is the given name of the brother of William D. Andrews, whom you say you know?

A. George.

X Q. 62. Is that the only brother William D. Andrews has, to your knowledge?

A. It is the only brother I have ever seen or know.

X Q. 63. Do you not know that William D. Andrews and his brother, George H. Andrews, are two of the complainants in this action?

2195 A. I do not know; I suppose them to be; I have never known them to be any other company than William D. Andrews & Bro.

X Q. 64. Has not William D. Andrews, now here present, indicated to you, while you were upon the stand and during this cross-examination, that he desired you not to disclose the facts called for by questions 47 and 53?

A. No, sir.

X Q. 65. Did you not exchange glances with the complainant while questions 47 and 53 were being put to you, and did not he communicate to you thereby, and did you not understand him to be adverse to a disclosure of the facts by you called for in those questions?

A. I did not exchange any glances with William D. Andrews. I should not have known what he meant if he had glanced at me, as he has always been most emphatic in his desires by word of mouth or letter, and plain.

2196 X Q. 66. When did Colonel Green come to Cortland to reside?

A. I do not know exactly, but it was some years, I think, previous to 1860. I do not know how long.

X Q. 67. Can you not be more definite as to the time? Please state, as near as you are able, when Colonel Green came to Cortland to reside?

A. He had two twin children who were then, I think, a year or two old when he came here. He did not at first live opposite the shop.

X Q. 68. Where did Colonel Green reside first after his removal to Cortland?

A. I do not know.

X Q. 69. Where did he reside first, so far as you know?

A. He resided in the village, but I do not know the street or house; the first I know was opposite the shop.

X Q. 70. When did he move into the house opposite the shop?

A. Some years previous to 1861. I do not know any nearer than that.

X Q. 71. About how long previous to 1861 did Colonel Green move into the house opposite your father's shop?

A. I do not know; some few years; not a great while.

X Q. 72. Can you tell within a year or two years of the time when Colonel Green went to reside in the house opposite your father's shop?

A. I should think it was within two years of 1860.

X Q. 73. Did you make his acquaintance previous to his residence in the house opposite your father's shop? If yea, state how long previous.

A. No; not to know him; I knew who he was.

X Q. 74. How soon after he moved into the house opposite your father's shop before you became personally acquainted with him?

A. Very soon; I could not specify any time.

X Q. 75. How intimate were you with him after your acquaintance commenced, and how frequently and where did you meet him?

2197 A. Quite intimate with him, the same as with other neighbors. I used generally to see him daily when I was at the shop at work. I met him anywhere on the road and at his house.

X Q. 76. Did you go to his house by his invitation; and, if so, about how frequently?

A. I do not know how frequently. I have been at his house a number of times by invitation during that time; I used to run in any time; I was a boy.

X Q. 77. Did he and his family exchange calls with your father's family; if yea, how frequently?

A. They did exchange calls. I do not know how frequently.

X Q. 78. Was it his custom to make and receive these calls in person, or were the calls made by the other members of his family mainly?

A. Both in person and by members of his family; often with himself and wife and some of the children. I do not know as well who received the other members of our family at his house.

X Q. 79. When you called at his house who usually entertained you?

A. Mrs. Green, perhaps, oftener than any one else. I used to go to see the children; sometimes himself. I do not know who most.

X Q. 80. He was much older than you were, was he not?

A. Yes, sir.

X Q. 81. It would be quite unusual for a man of his age, at that time, to become very familiar and intimate with a lad of your age at that time, would it not?

A. I do not know.

X Q. 82. Do you claim to have been on familiar terms with Colonel Green previous to and including the year 1861?

A. Yes; I was quite familiar with him.

X Q. 83. In what did your familiarity consist and of what character did it partake?

A. I used to talk, chat, and be with him; it was of such a character as a middle-aged man would adopt toward a young boy.

2198 X Q. 84. What were the subjects about which you usually conversed with him?

A. I do not know.

X Q. 85. Can you recall any subject?

A. Not specially. I recall all the conversations I had with him in regard to regimental matters and well matters. I had also conversations in regard to his place. I did not understand the question to include 1861 at the time I answered "not specially."

X Q. 86. What was said between you and him with respect to his place?

A. I cannot repeat particularly. He employed me to help him build fences and help about his work sometimes. He then talked about his work.

X Q. 87. When and for what periods of time were you employed by Col. Green? State generally.

A. Short times; occasionally.

X Q. 88. During what years were you employed by Col. Green and what work were you employed at?

A. During the years previous to 1861, in which he resided opposite the shop, and at light work about the place; only a few times in all, and of a few hours' duration.

X Q. 89. Did Col. Green work with you in the work which you did for him?

A. Usually.

X Q. 90. Was the house opposite the shop in which Col. Green resided, as you have stated, familiarly known as the Etz place?

A. Yes, sir.

X Q. 91. About how many acres of ground were contained in the place occupied by Col. Green in 1861 and thereafter?

A. I do not know.

X Q. 92. Do you not know where the lines were situated, or do you mean that you are unable to estimate the area contained within these lines in acres?

A. I do not mean either, exactly.

X Q. 93. What do you mean?

2199 A. There were portions of it sold; I do not know when; I think the original Etz place contained about 59 acres.

X Q. 94. When you worked for Col. Green upon what part of the original Etz place was your labor performed?

A. On the smallest amount of land that I have known him to own.

X Q. 95. Did Col. Green sell off all but a few acres of the Etz place soon after he purchased the same; and, if so, about how many acres did he retain in his possession?

A. I am quite sure that he did not purchase all of the Etz place to start with, and he sold off six acres to Elder Bowen, and there was some seven acres of island, which makes me more uncertain about the matter. I do not know whether he ever owned those and sold them or not.

X Q. 96. Did Col. Green usually perform the manual labor on the premises occupied by him, known as the Etz place, while he lived opposite your father's shop?

A. He performed manual labor on the place usually up to the time he raised or was preparing to raise the regiment. I do not mean to be understood that he performed all the manual labor on the place.

X Q. 97. Do you know how it was after his return from the army in the spring of 1862? I mean in regard to his performing manual labor on the place?

A. No, sir.

X Q. 98. Why are you unable to state whether or not Col. Green performed manual labor on the place occupied by him after his return from the army, in 1862, when you do state that he performed manual labor thereon previous to the raising of the 76th regiment, in the fall of 1861?

A. Because that summer I enlisted in the 157th New York Volunteers and remained in the field till the summer of 1865.

X Q. 99. Were you home at Cortland during that period; if so, how many times and when?

A. I was not. I did not leave the regiment until honorably discharged at the close of the war, except once when a prisoner of war.

2200 X Q. 100. You were asked on your direct examination if you knew anything of a well made on the premises of Col. N. W. Green, made in 1861, to which you answered, "I do;" please describe what is mentioned in the question referred to as a well.

A. It was a pointed rod or pipe forced into the ground to a depth of three or four feet and withdrawn; I did not see it completed.

X Q. 101. Why did you say a rod or pipe; can you not be certain which of the two it was?

A. Because it was a rod or pipe; I am not certain which of the two it was.

X Q. 102. Was not the instrument used a common crowbar, of large size, such as is commonly used in a stone quarry?

A. No.

X Q. 103. Will you swear positively it was not such a crowbar?

A. What I saw used was not a crowbar.

X Q. 104. What was its length, its diameter, and of what material was it made?

A. I should judge from six to eight feet long and an inch to inch and a half in diameter, and made of iron.

X Q. 105. How near were you to this instrument, and where was it at the time you saw it?

A. I was right up to it; it was both in and out of the ground.

X Q. 106. What position was it in, and what was being done with it when you saw it?

A. Perpendicular and horizontal when I saw it, at different times; it was being forced into the ground.

X Q. 107. What power was used to force it into the ground, and how was the same applied?

A. It was forced into the ground by grasping it with the hands and running it down with the hands.

X Q. 108. Was it weaved and swayed and wiggled to and fro in the ground?

A. Not much.

X Q. 109. Was it to some extent?

A. A little.

2201 X Q. 110. Who had hold of this instrument when you saw it?

A. Different ones; I do not know.

X Q. 111. Can you now mention the name of any person whom you will swear positively had hold of it and was engaged in working it into the ground at the time mentioned by you?

A. No.

X Q. 112. Was it driven with any instrument, in your presence, by striking upon it?

A. No.

X Q. 113. Where was the instrument when you saw it in a horizontal position?

A. On the ground.

X Q. 114. Was the end towards you when you saw it?

A. I do not know.

X Q. 115. Do you remember to have seen any opening in either end of the instrument indicating that it was a pipe, or hollow for any portion of its length?

A. I do not.

Proceedings adjourned until Friday, September 3d, 1880, at 9 o'clock a. m., at this place.

FRIDAY, *September 3d*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of EUSTACE D. DIBBLE resumed:

X Q. 116. What is your best recollection in respect to the instrument used in the experiment near Colonel Green's house in the fall of 1861, as to whether it was an iron rod or bar or a pipe?

A. I never knew which it was.

X Q. 117. Can you conceive of any reason why a pipe should have been used for the purpose for which this instrument was used on that occasion?

A. It might have been more convenient to procure one than the other.

2202 X Q. 118. Would not a bar be better adapted to the uses to which this instrument was there put, for the reason that a bar would be stronger and heavier than a pipe of the same diameter?

A. I do not know.

X Q. 119. Would not the greater weight of a bar have rendered it an instrument preferable to a pipe in ramming it into the earth?

A. I do not know; it might.

X Q. 120. Was not this instrument there used in the manner in which a crowbar is accustomed to be used in making post-holes and the like?

A. Some; not altogether.

X Q. 121. Have you made an examination of your books since the adjournment last night, and are you now prepared to state the facts called for in questions 47 and 53?

A. I have made a superficial examination and can make an approximate answer.

X Q. 122. Please state what amounts you received for your principals as their agent for the collection of royalties on driven wells in Cortland county, and what amount you have received as your compensation in the business of that agency?

A. Between three and four thousand dollars I collected for my principals; I received for myself in the neighborhood of five hundred dollars.

X Q. 123. Have you collected any royalties for your principals in wells outside of the county of Cortland in this State?

A. I have acted as a clerk for N. J. Parsons, but have not collected directly.

X Q. 124. Have you been sworn and examined heretofore with reference to the experiment made near Colonel Green's house in the fall of 1861?

A. I have.

X Q. 125. How many times and in what actions or proceedings?

A. Twice; once in an interference case and once in a suit brought by William D. Andrews, I think, against Carman and others.

2203 X Q. 126. What was the date of your examination in the interference case mentioned by you, and what was the date of your examination in the case of William D. Andrews against Carman and others?

A. The interference case was in the summer or fall of 1866; in the Carman case in the summer, I think, of 1872.

X Q. 127. Have you refreshed your recollection previous to your present examination by a reference to your testimony given on either of those occasions mentioned by you? If so, state which examination you have referred to.

A. I have; the latter.

X Q. 128. When did you read or examine your testimony given by you in your examination in the action of Andrews against Carman?

A. About four weeks ago; a portion of it.

X Q. 129. How long did you remain present at the experiment near Colonel Green's house, mentioned by you?

A. I should think about half an hour.

X Q. 130. What was the first thing you saw done in reference to that experiment by any one who took part in it?

A. I saw some men take hold of the instrument and raise it and force it into the ground.

X Q. 131. How long did this process of chucking or ramming it into the ground continue?

A. Most of the time while I was there.

X Q. 132. What was next done in reference to this experiment?

A. They pulled the instrument out and probed the hole with sticks.

X Q. 133. Who did the probing?

A. Several; I for one.

X Q. 134. Were any measurements made of the dimensions of the hole on that occasion?

A. I saw no measurements made.

X Q. 135. Please describe the hole, giving its dimensions, depth, and diameter, as near as you are able.

2204 A. I should think it was about the size of the instrument, perhaps two inches or thereabouts at the top, from what I could see; depth, three or four feet.

X Q. 136. Were there any perforations at or near the point of the instrument which you described on your direct examination as a rod or bar?

A. Not that I know of; I saw none.

X Q. 137. What next did you see done after the hole was made as you have described?

A. I saw nothing; I left.

X Q. 138. Was there any water in this hole; and, if so, what was its depth?

A. There was; I could not state its exact depth; over a foot, I should think.

X Q. 139. How far from the surface of the ground was the water in the hole?

A. As near as I can remember, I should think three feet, more or less.

X Q. 140. Was the water in the hole roily or clear?

A. I do not know.

X Q. 141. Was any water taken from this hole in your presence; and, if so, by what means?

A. There was; on a stick.

X Q. 142. You mean only so much water as adhered to a stick on its removal from the hole?

A. Yes.

X Q. 143. Did you ever know this hole to be used as a well or water to be taken therefrom for any purpose?

A. Not of my own knowledge.

X Q. 144. In your examination in the interference case mentioned by you did you make use of the following language: "In the fall of 1861 I saw Byron Mudge, Mr. Robinson, and N. W. Green putting up a frame-work on Green's premises; I went over there and staid some fifteen or twenty minutes?"

A. I think I did.

X Q. 145. Do you now wish to change or vary that statement?

A. No.

X Q. 146. What frame-work was there erected? Please describe it.

2205 A. A piece of scantling, perpendicular, eight or ten feet long, with a short arm at or near the top.

X Q. 147. What other appliances were used, if any, in connection with this frame-work mentioned by you?

A. A pulley, I think.

X Q. 148. Was any rope used in connection with the pulley?

A. I believe there was; I am not absolutely certain.

X Q. 149. What use was made of this frame-work, rope, and pulley, if any, in making this experiment? Please describe the same as minutely as you can.

A. I cannot say that it was used or was not at that time?

X Q. 150. Did you see it used, to your recollection?

A. I do not remember.

X Q. 151. Where did this frame-work stand during the experiment, with reference to the hole you have mentioned?

A. I do not remember.

X Q. 152. There was a creek or brook near by this hole, in a northwesterly direction, was there not?

A. The nearest portion of the creek was in a northwesterly direction.

X Q. 153. Was this stream very crooked, and did it approach the spot where this experiment was made—at short distances therefrom?

A. It was very crooked, and near there made two nearly right-angled turns.

X Q. 154. Was your father's shop opposite Green's premises supplied with motive power by means of a water wheel, to which the water was conducted in a ditch; and, if so, about how far was the shortest distance from the ditch to the place where this experiment was made?

A. It was supplied with a water wheel, to which the water was conducted in a ditch; I should judge the shortest distance to be about eleven rods.

X Q. 155. What was the altitude of the water in the ditch as compared with the surface of the ground at the place at which the experiment was made?

2206 A. I should judge the water in the ditch was about three feet higher than the surface of the ground at the place at which the experiment was made; the ditch was on the opposite side of North Main street from the residence of Colonel Green and the place where the experiment was made.

X Q. 156. Was the earth in the locality where this experiment was made and for some distance in either direction therefrom very porous and friable, and composed largely of gravel and smooth globular cobble-stones?

A. It was near there, in one direction, composed of earth mixed with small stones and cobbles, and in other directions black loam on the surface; I know nothing of its formation deeper.

X Q. 157. Of what materials was the earth mainly composed at the place where this experiment was made?

A. It is composed mainly on the surface of made soil from the overflow of the creek. The creek has a stony bottom.

X Q. 158. What is the general character of the stones in the bottom of the creek, and about what is their average diameter and size?

A. The stones are smooth, and run from gravel size to as large as a man's head; they are cobble-stone.

X Q. 159. Did Colonel Green have hold of the instrument with which this hole was made during this experiment? If so, state what you saw him do with reference to it.

A. I think he did not.

X Q. 160. Was he present all the time while you were there?

A. Yes.

X Q. 161. Did you see him when he left?

A. No.

X Q. 162. Do you know when Colonel Green received his commission as colonel of the 76th regiment or what the date of that commission was?

A. I do not.

X Q. 163. Do you recollect the month of the year when this experiment was made? And, if so, give it.

A. I do not; it was in the fall.

2207 X Q. 164. Have you any personal knowledge that Colonel Green held at the time of the experiment any commission or authority from the State or Federal Government as colonel of the 76th regiment?

A. I have not.

X Q. 165. Colonel J. C. Carmichael never in fact entered the military service as a member of the 76th regiment, did he, but did enter the service as a member and officer of the 157th New York State Volunteers, did he not?

A. I do not know whether he ever entered the service of the Federal Government in the 76th regiment or not; he did in the 157th.

X Q. 166. Byron Mudge did not enter the military service as a member of the 76th regiment, did he, but did enter the service as a member and officer of the 157th Regiment New York State Volunteers, did he not?

A. From my personal knowledge, I do not know.

X Q. 167. Did you not see Byron Mudge in Cortland after the departure of the 76th regiment to the field?

A. I think I did.

X Q. 168. And did he not remain in and about Cortland after said departure of the 76th regiment until after you left Cortland as a member of the 157th regiment?

A. I cannot recollect whether he did or not.

X Q. 169. What is your best recollection as to whether he did or not?

A. My impression is that he was about Cortland most of the time.

X Q. 170. On your direct examination you stated you thought Mudge and Robinson were dressed in uniform at the time of the experiment; what uniform do you mean?

A. Such uniform of blue as the other officers wore at that time.

X Q. 171. Did it differ in any respect from the uniform worn by officers of the 157th or 185th Regiment of the New York State Volunteers?

A. I do not remember; I know nothing about the 185th New York Volunteers. I do not remember any difference.

2208 X Q. 172. Did they wear coats while at work in this experiment—I mean Mudge and Robinson?

A. I do not remember.

X Q. 173. You stated on your direct examination that Robinson acted as adjutant of the 76th regiment. How do you know that fact?

A. By seeing him perform the duties of an adjutant.

X Q. 174. You do not mean to be understood that making experiments in the construction of wells is one of the duties of an adjutant of a regiment, do you?

A. Not one of the ordinary duties.

X Q. 175. What do you recollect to have seen done by Robinson as adjutant of the 76th regiment?

A. Act at dress parade.

X Q. 176. What did you see him do at dress parade?

A. I do not know that I can specify more than that he acted in the capacity of adjutant.

X Q. 177. Is not your knowledge respecting the position held by him in the 76th regiment derived entirely from information and not from personal knowledge?

A. It is not derived entirely from information and it is not derived from personal knowledge.

X Q. —. Have you now stated all the sources of your knowledge in respect to the position held by Mr. Robinson?

A. Not in my last answer.

X Q. 179. I do not limit it to the last answer. What other knowledge have you on this subject different from or in addition to that which you have heretofore stated?

A. None, except seeing him acting as adjutant.

X Q. 180. Can you now mention and describe any particular act done by Mr. Robinson as adjutant of the 76th regiment other than that you have already stated? And, if so, please state it.

A. No.

X Q. 181. You stated on your direct examination you thought Byron Mudge held the position of lieutenant in the 76th regiment. What personal knowledge have you of that fact?

A. None.

2209 X Q. 182. Who was present at any conversation of Colonel Green's previous to the experiment near his residence, mentioned by you, at which the subject of driven wells was the topic of conversation, and at which you were also present?

A. I do not know.

Proceedings adjourned until 2 o'clock p. m.

2 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: William D. Andrews and D. L. Hurlbut, Esqrs., for complainants, and Irving H. Palmer, Esq., for defendant, as before.

Cross-examination of EUSTACE D. DIBBLE resumed:

X Q. 183. Were there any other tools, appliances, or implements present or in use during the experiment near Colonel Green's house in addition to these you have mentioned?

A. I do not now remember of any.

X Q. 184. What business, if any, did Colonel Green do during his residence in Cortland aside from that connected with his duties as colonel and the litigation in which he was engaged, so far as you know?

A. He attended to his place.

X Q. 185. What did he do upon the place?

A. I could not specify; such work as is usually done on a small place like that.

X Q. 186. Did he do this work all the time he lived in Cortland, so far as you know?

A. I know of his doing no work on the place after I returned from the army.

X Q. 187. How much ground was under cultivation on his place and in crop during the years 1865 and 1866?

A. I think it was all pasture except the garden.

X Q. 188. Did he not cultivate his garden during the years 1865 and 1866 with his own hands?

A. I think not.

2210 X Q. 189. Did you ever know him to perform much manual labor?

A. Not a very great amount—considerable.

X Q. 190. When did Colonel Green sell the Etz place and when did he remove therefrom?

A. I do not know.

X Q. 191. Can you not tell the year in which he removed from the Etz place?

A. It was before 1868, I think; how much before I cannot say; I was West.

X Q. 192. Did you know of Colonel Green's residing in the house with Daniel Bradford, which stood on the site of the present Masonic Hall block, on Main street, in this village?

A. Yes, sir.

X Q. 193. When was that?

A. I can only answer that it was previous to the fall of 1867.

X Q. 194. Did he not move into the Bradford house in the fall or winter of 1861 and about the time the 76th regiment left the camp at the fair ground?

A. I do not know.

X Q. 195. Are you not able to be more definite with respect to the time when Colonel Green went to reside in the Bradford house; and, if not, why not?

A. I am not able to be more definite, because I have not thought of it at all; it has not been called to my attention particularly that I know of.

X Q. 196. Are you able to say that the change in Colonel Green's habits in matters of sociability was not due, to some extent, to the fact that he had estranged many of his friends and associates by his intemperate language and harsh conduct and by making himself generally disagreeable in society?

A. I am not able to say.

X Q. 197. Did not his conduct in this respect have a tendency to produce the change in Colonel Green's conduct which you have mentioned?

A. I do not know.

X Q. 198. Were you present at the shooting of McNett, or is your knowledge of that transaction derived from what you heard and read in relation thereto?

2211 A. I was not present at the shooting of McNett; my knowledge of it is derived from what I heard Colonel Green and others say and what I read in the papers and the trial.

X Q. 199. Were you present at the trial?

A. Part of the time.

X Q. 200. What do you know about an alleged mutiny in the camp of the 76th regiment or of McNett's insubordination or disobedience of orders, of your own personal knowledge?

A. Nothing.

X Q. 201. How are you able to say what effect the shooting of McNett by Colonel Green had upon the community of Cortland and vicinity?

A. From witnessing its effect.

X Q. 202. What effect did you witness?

A. A general state of extreme excitement; people on the streets excitedly discussing the affair, and the decided positions they occupied in regard to it.

X Q. 203. Were not these effects you have just mentioned due as much to the speeches of individuals as to the comments of the press upon the affair; the action of prejudiced and interested parties, who either sought to make political capital out of the affair or sought to advance their personal or party interest in obtaining civil or military offices for themselves and their friends, as to the shooting of McNett by Green, and was not the excitement and division of sentiment in the community attributable to the former as well as the latter?

A. I do not know.

X Q. 204. Will you swear that this was not so?

A. No.

X Q. 205. Were there not persons in this community who took no part in this controversy and held themselves aloof from it?

A. As far as I know, none.

X Q. 206. Will you swear there was not such persons residing in this community?

A. No.

X Q. 207. Do you know anything with respect to the con-
2212 troversy between Colonel Green and Dr. Meacham, then rector
of Grace church, Cortland, of your own personal knowledge?

A. Yes.

X Q. 208. What do you know?

A. I know they had a controversy.

X Q. 209. How do you know that?

A. I saw them near the shop having a controversy.

X Q. 210. Did you hear anything said between them?

A. I heard their voices, not what they said.

X Q. 211. Why do you say they had a controversy if you did not hear what they said?

A. I could hear disconnected fragments enough to show me.

X Q. 212. Did you hear enough to ascertain what the subject of the controversy was?

A. I did.

X Q. 213. What was it?

A. In regard to Colonel Green's raising the regiment.

X Q. 214. What did they say in respect to Colonel Green's raising the regiment, and how did a controversy arise with respect to Colonel Green raising the regiment?

A. I could not repeat what they said, not hearing much, and do not know of my personal knowledge how the controversy arose.

X Q. 215. Were you a member of Grace church at that time?

A. I was.

X Q. 216. Did you or your father's family take sides or participate in any way in the controversy or sympathize with either of the parties thereto in the controversy you have mentioned?

A. We did not participate in the controversy at all, nor justify either entirely.

X Q. 217. Did not the controversy between Colonel Green and Dr. Meacham have its origin as follows, viz: Had not Colonel Green used opprobrious epithets towards members of Grace church and denounced them as rebels, copperheads, or sympathizers with the rebellion, or used other language of like import, and did not Dr. Meacham remonstrate with Colonel Green for the same, and did not the controversy in question originate in this way? 2213

A. I do not know of my own personal knowledge how the controversy had its origin, nor do I know that he used such language towards members of that church, nor do I know that Dr. Meacham remonstrated with him.

X Q. 218. Did you not understand and have you not been informed that the controversy between Colonel Green and Dr. Meacham arose in the manner stated in the last question, or substantially in that manner?

A. Yes; substantially in that manner, not wholly.

X Q. 219. In what respect was it different?

A. I always understood that it arose from Dr. Meacham telling Colonel Green that if he ventured to raise a regiment he would cause him to be turned out of the church; that was the start, as I understood it.

X Q. 220. Was this version you have given in your last answer the same given by Colonel Green?

A. It was the version given by Colonel Green to me of their controversy near the shop soon after it occurred.

X Q. 221. The controversy between Colonel Green and Dr. Meacham had its beginning some time before the shooting of McNett, had it not?

A. Yes.

X Q. 222. It had no connection with the shooting of McNett, had it?

A. It had not at that time.

X Q. 223. Was Colonel Green's connection with Grace church severed by his withdrawal or expulsion therefrom?

A. I do not know.

X Q. 224. What connection had the controversy between Dr. Meacham and Colonel Green with the shooting of McNett by Colonel Green?

A. I know of none.

X Q. 225. What do you know of the bitterness engendered, as you say, in the community by the shooting of McNett, and did not the bitterness you have mentioned arise out of the attitude of the then political parties of the country and the controversies growing out of the late war quite as much, if not more, than out of the shooting of McNett by Colonel Green?

2214 A. I know that the feeling throughout a portion of the community was very bitter against Colonel Green for the shooting of McNett; whether the bitterness grew out of the attitude of the political parties and the controversies I do not know.

X Q. 226. How do you know the feeling throughout a portion of the community was bitter against Colonel Green?

A. Through witnessing it.

X Q. 227. What do you mean when you say you know the bitterness of the feeling against Colonel Green by witnessing it, and how were you able to witness such feeling?

A. I mean that I both saw and heard many people bitterly declaiming against Colonel Green, generally in an excited manner; I witnessed it with my eyes and heard with my ears.

X Q. 228. You stated, in answer to question 32, that it was impossible to get Colonel Green to talk on any other subject except his troubles; do you mean to be understood as swearing that Colonel Green conversed upon no subjects except his troubles after your return from the army in 1865?

A. No; I mean that I do not remember of holding any conversation with him of any considerable length, but that he lugged in his troubles.

X Q. 229. Colonel Green was a man rather inclined to have a hobby of some kind, was he not?

A. Yes.

X Q. 230. He was rather egotistical, was he not?

A. Rather so.

X Q. 231. He was a man of large, robust frame and apparently sound physical health, was he not?

A. Rather large, and apparently good health.

Cross-examination of this witness closed.

Redirect examination by Mr. HURLBUT:

R. D. Q. 232. You have been interrogated on your cross-examination in regard to your collecting royalties for William D. 2215 Andrews & Bro. in this county. In the course of that agency have you issued gratuitous licenses to poor and deserving people who used and owned driven wells? Please state about it.

A. I have not; there have been such licenses issued, but not by me; William D. Andrews issued several such licenses, and I have always been instructed by him to accept the names of responsible citizens of the different towns in this county signed to certain papers recommending certain poor and deserving persons for gratuitous licenses, which papers I was to forward to him, in order that he might issue the licenses gratuitously.

R. D. Q. 233. Were gratuitous licenses issued to these parties and were licenses so issued to the persons so recommended?

A. To a portion of them they were issued.

R. D. Q. 234. Were the parties so recommended under the instructions which you received from William D. Andrews & Bro. excused from paying royalties and no demand for the same made against them?

A. They were excused from paying royalties, and no demand was made upon them.

R. D. Q. 234*a*. Was there a committee appointed by the citizens of Cortlandville for the purpose of recommending to William D. Andrews & Bro. those deserving of gratuitous licenses or those 2216 that should be excused from paying royalty on account of their pecuniary circumstances?

A. There was a committee appointed, I do not think by the citizens of Cortlandville, for such purpose.

R. D. Q. 235. State the names of that committee.

A. James C. Carmichael, B. B. Jones, and Henry Brewer.

R. D. Q. 236. And, as I understand you, recommendations for excusing deserving persons from paying royalty were made by other responsible men in the community besides the committee and adopted by William D. Andrews & Bro.; is that so?

A. It is.

(Mr. Hurlbut here shows witness a paper.)

R. D. Q. 237. Is the paper in your hand a recommendation from the committee for the parties named therein to be excused from paying royalty?

A. It is.

(Complainants here offer the paper in question in evidence.)

(Paper received in evidence and marked "Complainants' Exhibit Number Two on Rebuttal, Cortland, New York, September 3d, 1880, M. Stanley Bierce, notary public.")

R. D. Q. 238. State about how many different persons in all were excused from paying royalty in this county on account of their pecuniary circumstances.

2217 A. I do not know exactly; I should judge from forty to fifty.

R. D. Q. 239. Are driven wells used in the village of Cortland and put down by the village authorities for fire purposes?

A. They are.

R. D. Q. 240. Have the complainants, William D. Andrews and Bro., given gratuitously to this village the right to so put down and use the wells?

A. I have always understood so.

(Mr. Hurlbut here shows witness a paper.)

R. D. Q. 241. I show you a recommendation for a gratuitous license made by Hon. R. H. Duell; was that received in your usual course of employment?

A. It was.

R. D. Q. 242. Please read it.

A. (Witness reads:)

"I certify that I am acquainted with John Shirley and that his pecuniary circumstances are such that he cannot pay for a license, and that it would be a very kindly act to give him a license gratuitous.

"Dated Nov. 9th, 1878.

"R. H. DUELL.

"Mr. Shirley has a mother now about 82 years of age, with no means of support. He is her only son and support, and he is obliged to help support her out of his wages as a day laborer.

"R. H. DUELL."

R. D. Q. 243. Have all the parties that have been recom-
2218 mended by the committee or other responsible individuals to
be excused from paying royalty been so excused?

A. They have been so excused.

Redirect examination of this witness closed.

Recross-examination:

R. X Q. 244. Have not William D. Andrews & Bro. issued gratuitous license to persons of wealth and prominence in Cortland?

A. I believe they have.

R. X Q. 245. To how many such persons?

A. I could not tell.

R. X Q. 246. About how many?

A. I have never known how many.

R. X Q. 247. Please mention the names of such as you now remember.

A. Thomas Keator, James S. Squires, and Randolph Randall; I do not recall any more now.

R. X Q. 248. Many of the persons to whom gratuitous license was issued in this county by William D. Andrews & Bro. have no property not exempt from levy and sale on execution; is not this so?

A. I do not know what property is exempt from execution; they were persons in poor circumstances.

Recross-examination of this witness closed.

Second redirect examination:

R. D. Q. 249. Have you had any directions from the complainant, Nelson W. Green, in respect to gratuitous licenses in this county? And, if so, state how communicated and what the directions were.

A. I have received from Colonel Green, both by letter and word,
directions not to collect royalties from such people as assisted
2219 him in a pecuniary way on the occasion of the burning of
his barn, or from certain men who went his bail on the indictment for the shooting of McNett, or who assisted him at that trial; William D. Andrews also instructed me to act on Green's instructions in that matter.

Examination of this witness closed.

(S'g'd) EUSTACE D. DIBBLE.

Subscribed and sworn to before me this 3d day of September, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

Proceedings adjourned until Saturday, September 4th, 1880, at 8.30 o'clock a. m., at this place.

2220 SATURDAY, *September 4th*, 1880—8.30 a. m.

Convened pursuant to adjournment.

Present: D. L. Hurlbut, Esq., for complainants, and Irving H. Palmer, Esq., for defendant, as before.

NOAH J. PARSONS called for complainants.

Q. 1. State your name, age, residence, and occupation.

A. Noah J. Parsons; 49 years last March; residence, Cortland village, Cortland county, New York; occupation, manufacturer of washing machines.

Q. 2. Are you one of the complainants in this cause?

A. I am.

Q. 3. Were you at the town of Preble some time ago, for the purpose of examining as to water, where a well formerly was dug on the place owned by William E. Tallman, and now owned by the heirs of the Hiscock estate, which premises are now occupied by Thomas Ballard? If yea, state when, and who went with you, and for what purpose, fully.

A. I was; I went to Preble the 28th day of last July, taking with me two sections of old pipe, a sledge, one pair of gas-pipe tongs, and a wrench; Jesse M. and W. T. Blanchard accompanied me; we went to the premises which I am informed are owned by the heirs of the Hiscock estate, and formerly owned by William E.
2221 Tallman and now occupied by Thomas Ballard; I asked Mr. Ballard's permission to investigate the well over which it was reported William E. Tallman once placed a windmill; I also asked him to point out to me the location of said well, which he did.

Q. 4. Describe the location of the place where he stated the well was, the surface of the ground, and what you did there at the time, briefly.

A. It is about one mile south from Preble village; about sixty rods east from the north and south road leading from Preble to Cortland village and about seventy-five rods north of an east and west cross-road; it is from seventy-five to eighty rods east of south from a house then occupied by J. B. Share and about one rod north from a board fence running east and west. The place pointed out by Mr. Ballard was on the west bank of a ravine or depression. We commenced digging with crowbar and shovel at the point designated by Mr. Ballard and soon found a stone wall, circular in form, or nearly so; we then drove a pipe inside this wall for the purpose of ascertaining the distance to water.

Q. 5. How deep did you dig before you found the wall of the well and how deep did you drive the pipe?

A. About six inches; we drove the pipe thirteen feet.

Q. 6. Please state what else you did there at that time and who was present; also state at what depth you found water by driving the pipe, as you say.

A. We found water at twelve feet and six inches from the surface; we then called the nearest neighbor, excepting J. B. Share, who told me his name was Callen, to measure the distance to water; after Mr. Callen had measured to water he informed me that the wall did not extend below six or eight feet; I then commenced cleaning out the stones and dirt from inside the wall of the well; the two Blanchards and myself worked at cleaning it out until about six o'clock p. m.; we found at a distance of two feet and two inches from the surface a strip of board, which we left standing till we got down five or six feet, or so that five or six feet of this strip of board with 2222 four strips nailed across it were visible; I went to Preble and asked Matthias Van Hoesen to ride down with me and identify the well as the one over which William E. Tallman several years before had placed a windmill. Mr. Van Hoesen accompanied me to the well, soon after which W. T. Blanchard placed a chain around said strip of board below the upper cross-strip; with a lever J. M. Blanchard and myself drew this step-ladder or strip of board out of the well; there was a piece af scantling about four by four inches standing endwise and near said ladder which we drew out in the same way, with a chain and lever; after getting down nine or ten feet by pounding a hole with a crowbar and withdrawing it, we could see water in the hole made by the bar. I then asked Mr. Van Hoesen to get some man to clean out this well to the bottom of the wall, and I, after taking Mr. Van Hoesen home, returned with the two Blanchards to Cortland, bringing with us the described ladder taken from the well.

Q. 7. Have you been at this well since; and, if so, about when, and what was done? Describe briefly.

A. I have been at the well several times since. The next afternoon I drove there and found the well had been cleaned out deeper than when I had left it, so that water was just visible. I asked Mr. Ballard if it was cleaned to the bottom of the wall. He said he thought not. I arranged with him to clean it out the next day, which he promised to and did do. I went down into the well and satisfied myself that it was not to the bottom of the wall; it was twelve feet and six inches deep at that time from the surface.

Q. 8. When you were there next what did you see and do?

A. I drove there the next day, July 30th, and asked Mr. Ballard if he and his hired man would clean it out that day; they said they would. I drove on and returned about six o'clock that night. I stopped at Mr. Ballard's barn, where he was doing his chores, and inquired of him if he had got to the bottom of the wall. He said he had, and exhibited a sheet-iron curb or thimble one foot in height and about fourteen inches in diameter; also a copper

2223 strainer, similar in shape to the nozzle of a water sprinkler.

I hitched my team at the fence. I went to the well and measured the depth of the water, which I found to be eighteen inches.

Q. 9. Have you been to the well since and taken measurements of it and examined the bottom? And, if so, state about when and with what results.

A. I was at the well two or three days afterwards. I took a three-inch pump with me and tried to pump out the water so I could see the bottom of the wall; after working the pump a few minutes it collapsed. We then tried bailing; failing to get the water out, I returned home. I went down into the well and measured the wall; it was a little over fourteen feet deep from surface to the bottom of the well; the wall at the top measured from twenty-one to twenty-seven inches inside diameter; about six feet from the top it measured two feet and six inches; at the bottom I measured in roily water and could not put the square down inside the wall, but it is nearly two feet inside the wall; there was eighteen inches of water in it at that time.

Q. 10. You have spoken of a strainer and a sheet-iron curb that Mr. Ballard found in the bottom of this well. Did you take those into your possession; and, if so, about when, and have you had them in your possession until they were delivered to Mr. Frederick Hatch, a notary taking testimony in this cause in Cortland, for the purpose of being used in examining witnesses before him?

A. I asked Mr. Ballard to keep them, which he did for five or six days. I then brought them to this village for the purpose of having them photographed. I placed them in the room over Smith & Kingsbury's hardware store, in this village, from which place I took them to the notary, Hatch.

Q. 11. Is the Mr. Ballard whom you have spoken of the same Mr. Ballard who was examined before Frederick Hatch, a notary, in this case?

A. He is.

Q. 12. I have just had produced from the office of the notary, Hatch, the strip of board or step-ladder, and I now ask you to examine it and state whether it is the strip of board or step-ladder which you, with the Blanchards, took from the well as testified to.

2224 A. It is.

Q. 13. Please describe its size and length and how made.

A. It is twelve feet and four or five inches long, an inch thick, and about three inches wide, having four strips of board about sixteen inches long and from three to five inches wide, nailed on one side of it, the first a little over a foot from the top and then a little over a foot apart, the lower edge of the bottom one being a little less than six feet from the top, the second strip from the top being broken off at one edge of the long strip.

Q. 14. Please state in what position it was at the well as you found it.

A. The top of it was two feet and two inches from the surface of the ground; I mean by the top the end across which the strips are nailed; this end leaned against the west side of the wall of the well, as low down as we had cleaned out the well before drawing this latter; it was six or eight inches from the wall.

Q. 15. Please state, from the measurements that you have made, how near the strip of board or ladder (the lower end) was from the bottom of the well.

A. Before the time it was drawn from the well I could not see its bottom; adding the two feet and two inches which it stood below the surface to its length, it measures within an inch or two of the bottom of the wall of the well and also the bottom of the well.

Q. 16. Now please describe the appearance of the ladder as to soundness and decay.

2225 A. From a foot to sixteen inches of the bottom seemed preserved in about its natural condition; from there up it shows decay on the surface resembling the cracked bark of a small pine or spruce tree.

Q. 17. Please state whether this strip of board with cleats *in* is a sawed stick and is the stub-shot distinctly shown at the lower end, and whether there is any appearance of any nails or nail-holes except where the cleats are nailed on.

A. It is a sawed stick—stub-shot about two inches in length is shown—and, with the exception of the nails in the cleats, I see no other marks upon it.

Q. 18. I now show you the copper strainer and sheet-iron curb which I have just received from the notary, Frederick Hatch, referred to, and ask you to state whether they are the same shown and given to you by Mr. Ballard, as taken out from the bottom of the well, and the same that you have had in your possession until delivered to the notary, Hatch, as testified to.

A. They are.

Q. 19. I now hand you the copper strainer and ask you if it is in the same condition that it was when you first saw it, with the exception of the label of the notary, Frederick Hatch, put on for the purpose of identification?

A. With the exception of being dry and the green corrosion being a lighter color it is.

Q. 20. Please describe it.

A. Across the largest part it measures a little over five inches; from this largest part it tapers to a little over an inch and a half, having a neck two inches in length and an inch and three-quarters in diameter, outside measure; at the lower end of this neck a leather string is tied, being the shape of the nozzle of an ordinary sprinkling-pot; the face and sides down to the described neck are full of small holes about a sixteenth of an inch in diameter.

Q. 21. Were you present at one time when Mr. Palmer, the defendant's counsel, was also present and produced a section of an iron gas pipe about two feet in length, of which photographs have been put in evidence in this cause by defendant?

A. I was, and I understand that the pipe or a photograph of it has been put in evidence.

2226 Q. 22. Please state how that pipe fitted the strainer that you have testified to; state fully.

A. The strainer would fit on to the battered or smallest end of the pipe snugly, going on about an inch; it could not be placed over the other end.

Proceedings adjourned until 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Examination of NOAH J. PARSONS resumed:

Q. 23. Please state whether sand has corroded on the strainer and on the inside of the same.

A. There are particles of sand adhering to both outside and inside of said strainer.

Q. 24. I now show you the sheet-iron curb that I recently received from the office of said notary, Frederick Hatch, and ask you to state if it is the same Mr. Ballard exhibited and gave you as taken from the bottom of said well, and the one that you have had in your possession, as testified to, and state whether it is in the same condition as it was when you first saw it in Ballard's possession.

A. It is the same—the one I have had in my possession; with the exception of being dry now and wet then, it presents essentially the same appearance.

Q. 25. Please state its appearance as to being rusted.

A. One end is ragged; there are several holes in the sides, as if eaten by rust, and it is covered with rust, both outside and in.

Q. 26. Have you been to the well referred to on Monday of this week? And, if so, please state who was present and what examinations you made.

A. I did go to the well last Monday. Matthias Van Hoesen, T. J. Getman, Eben Daly, and either Mr. Haviland or Mr. Aldrich, 2227 I am not positive which, J. B. Share, Thomas Ballard and William D. Andrews were with me. I took with me a galvanized iron pump with three-inch suction pipe, with which two men pumped the water so nearly out that most of the bottom of the well was visible. Mr. Ballard, Mr. Getman, Mr. Daly, and myself then each went into the well, I think, in the order named, each taking a crowbar and testing nearly all portions of the bottom by raising up the bar and striking it down; while making this test myself I could not strike the bar over two inches into the bottom at any point; before commencing to pump there was fifteen inches of water in the well.

Q. 27. Please state the shape of the wall and of what stones was it stoned up?

A. It was irregular at the bottom and flat stone for about two feet from the bottom; the balance was laid up of cobble-stones.

Q. 28. Please state the character and formation of the soil at the bottom of this well.

A. It was a firm, compact gravel.

Q. 29. Please state how it was as to being hard and cemented together.

A. It was hard; whether cemented together or not I could not see for the water.

Q. 30. In the trials that you and others made with the bar in the bottom of the well were you able to find any soft spots or spot where a hole had formerly been made, and did you examine with particular reference to that fact?

A. I was not; we did examine with particular reference to that fact, and I do not know that any of the others found any difference at any point.

Q. 31. Please state whether the soil that you took from this well appeared like soil washed therein.

A. With the exception of the cobble-stones, it did.

Q. 32. Please state whether it was comparatively soft, pliable, and easily removed.

A. It was at the top; it became more compact as we went down; no part of, as far as I witnessed, the cleaning out but what could be taken out with a shovel after the stones were removed.

2228 Q. 33. Please state whether there was a rapid influx of water in the well at the time you pumped it out and where the same appeared to come in.

A. There was; it came from the north or northeast side.

Direct examination of this witness closed.

Cross-examination:

X Q. 34. How long have you resided in Cortland village?

A. With the exception of a year in Iowa, fourteen years. I was born in this county; with the exception stated, and between fourteen and fifteen years, during which I was in California, and eighteen months or two years in Wisconsin, Illinois, and Michigan, I have lived in the county all my life.

X Q. 35. What year of your lifetime did you spend in Iowa?

A. I arrived there August 13th, 1878, and I was there nearly a year from that time.

X Q. 36. What has been your business for the last fourteen years?

A. Up to September, 1876, I have manufactured and sold a washing machine and the patent for the same machine; from September, 1876, to December, 1879, the larger portion of the time was spent collecting royalties on the driven well for William D. Andrews and Brother, under reissued patent No. 4372.

X Q. 37. Who was the patentee of the washing machine which you state you manufactured and sold, and by what name was the washing machine known in your business?

A. I have sold two washing machines; the first was patented by W. H. Blood, I think, January 14th, 1864, and was called the "Dash-away;" the second I am the patentee of and it is called the "Boss."

X Q. 38. Where was the factory or shop at which you manufactured these machines located?

A. The first one was in San Francisco; the second at Salem, 2229 Oregon; I afterwards manufactured at Rome Center, Michigan, then here in Cortland, New York, for a good many years.

Proceedings adjourned until Monday, September 6th, 1880, at 10.30 o'clock a. m., at this place.

MONDAY, *September 6th*, 1880—10.30 a. m.

Convened, by consent of parties present, at the law office of Irving H. Palmer, Esq., 27 North Main street, Cortland village, N. Y., instead of room 12 Messenger House, Cortland village, N. Y.

Present: D. L. Hurlbut, Esq., for complainants, and Irving H. Palmer, Esq., for defendant.

Cross-examination of NOAH J. PARSONS resumed:

X Q. 39. In what way did you do the manufacturing of washing machines—by contract with other parties, or did you actually engage in the manufacture yourself?

A. In both ways.

X Q. 40. Did you have any one engaged in the sale of washing machines besides yourself, or did you alone do the selling?

A. I have had others.

X Q. 41. Was it your principal aim to sell the machines or the patent under which the machines were made?

A. I sold each as opportunity offered and as I could find purchasers.

X Q. 42. What other patents have you handled or sold aside from these two washing-machine patents and the driven-well patent?

A. I never sold any other patent except for the two washing machines; I have sold licenses for the Green driven-well patent, but never the patent itself.

X Q. 43. Were you ever engaged in the sale of patented articles as a business other than the washing machines mentioned by you?

A. To a limited extent I have been.

2230 X Q. 44. Before or since you have been engaged in the sale of washing machines and the patents under which they were made?

A. Since.

X Q. 45. In what year did you begin the sale of washing machines and the patents under which they were made?

A. I began the sale of the "Dashaway" washing machine in December, 1862, under a caveat.

X Q. 46. And how long did you continue to make that your business?

A. Under the caveat up to the issue of the patent, January 14th, 1864.

X Q. 47. For how long after the issue of the patent, in 1864, did you make the manufacture and sale of washing machines your business?

A. Continuously to the present time.

X Q. 48. And have you added to this business the sale of licenses under the driven-well patent; and, if so, for how long a period?

A. I have, and from about October 1st, 1876, to December, 1879.

X Q. 49. What was your business previous to 1862?

A. My father died when I was four years of age; I lived with my mother until I was seven years old; I then lived with a cousin seven years; I wish to correct the statement as to having resided in this county all my life, with the exceptions named; five of the seven years that I lived with this cousin I lived in an adjoining county—the county of Tioga; he owned a saw-mill and a farm; I did such work about either as a boy of my age would naturally be called upon to do; the summer after leaving this cousin I worked for a farmer, Jesse M. Blanchard, for four dollars per month; I worked in that neighborhood, I think, the next summer; then I went West with a sister to near Delevan, Wisconsin; I lived in Milwaukee six months; then at Chicago a short time; I then returned to this county and worked with my brother at the carpenter trade two or three years; I then worked a short time in a sash and blind factory
at Syracuse, N. Y.; from there I went to selling books, which
2231 business I followed until I went to California; in California I
followed placer mining for seven years; I then went to Idaho and was there a short time, and then returned to San Francisco and went to work at the washing machine.

Proceedings adjourned until 1 o'clock p. m.

1 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of NOAH J. PARSONS resumed:

X Q. 50. After you left Syracuse and commenced the sale of books were you engaged in traveling or in a store?

A. Traveling.

X Q. 51. In what counties, States, or Territories did you travel?

A. New York, Pennsylvania, Ohio, Indiana, Kentucky, Tennessee, Missouri, and Illinois.

X Q. 52. What books were you engaged in selling?

A. A book, a pamphlet edition of the Cuban Expedition.

X Q. 53. Were you engaged in mining as a proprietor or as an employee, or both?

A. I worked for myself only.

X Q. 54. From what point did you start for California, and what route did you take?

A. I went by steamer from St. Louis to St. Joseph; from there to Sacramento by ox teams.

X Q. 55. What interest have you in reissue patent No. 4372, if any?

A. With the exception of a reservation for United States military and cemetery purposes, I own an undivided one-twentieth of the State of Iowa, excepting some six or eight counties, the names of which I cannot give.

X Q. 56. Is there any other Territory in the United States in which you have any interest under this patent?

A. No.

2232 X Q. 57. How many suits have been commenced for infringement of this patent in the State of Iowa against parties residing in that State in which you are named as one of the complainants?

A. Previous to July 2d, 1879, about three hundred; at that time another agent was appointed; whether he has brought any suits or not I am unable to say.

X Q. 58. Did you have charge of the sale of licenses and the collection of royalties in the State of Iowa up to July 2d, 1879, under reissue patent No. 4372?

A. From August 13th, 1878, to that time I did.

X Q. 59. Had any licenses been sold or royalties collected in that State under this patent previous to August 13th, 1878, to your knowledge?

A. I cannot say positive; my impression is that there had.

X Q. 60. Had Colonel Green issued any licenses previous to the assignment by him of an interest or interests therein to William D. Andrews & Bro. or any other parties? If so, state, as near as you are able, how many licenses had been issued by said Green previous to such assignments by him in the State of Iowa.

A. I cannot say whether he had or not.

X Q. 61. Did you keep any books showing your transactions in the sale of licenses and collection of royalties in the State of Iowa; and, if so, would such books show what licences had been issued or royalties collected by N. W. Green previous to the assignment by him of interest in said patent, and in whose possession are such books, and where are they now?

A. I did keep such books; they would only show such licenses as were presented to me for exchange for new ones under Green's reissued patent. I suppose them to be in the hands of Messrs. Rickel, West & Eastman, Cedar Rapids, Iowa.

X Q. 62. What amount of money did you receive or collect as royalties or for the sale of licenses under this patent in the State of Iowa?

A. I am unable to state that.

X Q. 63. Has your business, in the collection of royalties 2233 in that State, been settled with the other parties interested in the ownership of this patent?

A. There has been no final settlement.

X Q. 64. Please approximate, as near as you are able, to the amount of money received from the collection of royalties and sale of licenses under this patent in the State of Iowa.

A. From seven to ten thousand dollars; I think that would cover it either way.

X Q. 65. Where did you first commence the collection of royalties under this patent, and in what counties, States, and Territories have you been engaged in the collection of royalties under this patent?

A. I commenced in Broome county, New York. I collected in Chemung, Tioga, Onondaga, Wayne, Monroe, Yates, Seneca, Orleans, Niagara, the northerly towns of Erie; that is all in the State of New York. I think I collected royalties in most of the counties west of Harrisburg, in the State of Pennsylvania, where there were driven wells; I am unable to name the counties. My certificate of agency covered the State of Iowa with the exception of six or eight counties.

X Q. 66. What amount of money was realized from the sale of licenses and the collection of royalties by you in the several counties mentioned by you in your last answer in the States of New York and Pennsylvania? Please state as near as you are able.

2234 A. I cannot tell the amount; approximately, between twelve and fifteen thousand dollars.

X Q. 67. When did you first hear of the Tallman well in Preble?

A. In the fall of 1877.

X Q. 68. What was the source of your information at that time?

A. I heard it here in Cortland; from whom I cannot say.

X Q. 69. Had the fact of the existence of this well, and that it was a driven well constructed about the year 1859, and that it anticipated the alleged invention of the driven well by N. W. Green, been pleaded in an answer to complainants' bill of complaint in a suit for infringement of reissued patent No. 4372 prior to the time when you first heard of its existence?

A. Not to my knowledge.

X Q. 70. Are you now able to recall the place where and the names of the persons present when you first heard of this Tallman well?

A. I heard it here in Cortland; from whom I cannot say.

X Q. 71. Are you able to recall any of the circumstances connected with the conversation in which you first heard of this Tallman well or how it came to be a subject of conversation?

A. I am not and cannot.

X Q. 72. When did you first go to Preble after hearing of the existence of this Tallman well?

A. I think within two months.

X Q. 73. Who went with you on that occasion, if anybody?

A. I went alone.

X Q. 74. Upon whom did you call and what did you do with reference to this well on the occasion of your first visit to Preble, after hearing of its existence?

A. I had no acquaintance in Preble. I cannot give the names of any parties that I called upon except T. J. Getman and a justice of the peace there.

X Q. 75. What led you to call on T. J. Getman?

2235 A. I had learned from some source that he had worked for William E. Tallman on the farm where this reported well was said to have been made; from whom I do not know.

X Q. 76. Did you learn that from some one in Preble or in Cortland?

A. Some one at Preble village.

X Q. 77. Whom did you converse with in Preble village on that occasion respecting this well, the time when it was constructed, and who worked for William E. Tallman at the period when it was claimed to have been constructed?

A. I made inquiries of the hotel keeper and the postmaster, whose names are A. H. Van Hoesen and J. J. Out, respectively, and of many other parties who were strangers to me.

X Q. 78. Did you call upon T. J. Getman on that occasion?

A. I did.

X Q. 79. Were you alone when you called; and, if not, who was with you?

A. I was alone.

X Q. 80. Did you introduce yourself to him; and, if so, what name did you give?

A. I presume I introduced myself; if I gave a name at all it was my own—N. J. Parsons.

X Q. 81. Did you state your business to him; and, if so, what did you tell him in relation thereto?

A. I told him that I was there to procure facts regarding the reputed windmill well on the William E. Tallman farm.

X Q. 82. What further did you tell him, if anything? State as fully as you are able.

A. I asked for all the particulars he could give me relating to the making of the above-mentioned well; this in substance. I cannot give the precise language made use of at the time.

X Q. 83. Did you tell him on that or any other occasion that you were a lawyer or a member of the legal profession, or that you were engaged with Judge Duell or any other lawyer or lawyers in the defense of a suit or suits brought for infringements of Green's
2236 driven-well patent, or anything of that import or in substance like it?

A. I never stated to T. J. Getman or any other man that I was a lawyer or engaged with any lawyer or lawyers in the defense or prosecution of any suit or suits of whatsoever nature or kind; I said nothing of that import or in substance at all like it.

X Q. 84. Did you draw his affidavit on that occasion and did he make oath to it?

A. I did write out a statement as he made it and he made oath to it.

X Q. 85. Before what officer or magistrate did he make oath to this statement, and where did you and he go for that purpose?

A. Before Eben Daly, justice of the peace at Preble village; he and I went from his farm to the village for that purpose.

X Q. 86. What time of day was it when he made oath to this statement, as you call it?

A. I am unable to give the time of day, except that it was in the daytime.

X Q. 87. Can you tell whether it was before or after noon; and, if so, which was it?

A. I cannot.

X Q. 88. Where did you find the justice—Daly?

A. At the hotel in Preble, then kept by A. H. Van Hoesen.

X Q. 89. For what purpose did you tell Mr. Getman you desired to procure his affidavit and what use did you tell him you intended to make of it?

A. I wanted to get facts; I do not know that I explained the purpose for which they were to be used.

X Q. 90. What was the distance from Getman's house to the hotel at Preble?

A. To guess at it, about a mile east.

X Q. 91. Where did you first find Mr. Getman on that occasion?

A. I found him in a barn.

X Q. 92. How near his residence?

A. About three rods.

X Q. 93. What was he doing?

2237 A. Cutting pumpkins.

X Q. 94. What was first said when you met him and who said it?

A. I cannot give you the details of the conversation; the substance I have already stated.

X Q. 95. Do you not remember what was first said and by whom it was said?

A. I do not.

X Q. 96. What inducement did you offer to Mr. Getman to get him to go before the justice and make affidavit to the statement you have mentioned?

A. I offered to pay him for his time.

X Q. 97. Did you pay him anything; and, if so, how much?

A. I did; seventy-five cents.

X Q. 98. Where was this statement or affidavit made by Mr. Getman drawn?

A. It was in the barn.

X Q. 99. How was it written—with pen or pencil?

A. Pen.

X Q. 100. Where did you procure the writing materials and upon what did the paper rest while you were drawing the affidavit?

A. I cannot state where I procured the materials; I had "legal cap" paper with me and a book; also pen and ink; I rested the book upon a hen-coop while writing the statement.

X Q. 101. Who were present while the affidavit was being drawn?

A. T. J. Getman and myself.

X Q. 102. How long were you engaged in conversation with Mr. Getman before his affidavit was drawn and what reasons did you give him for making this affidavit?

A. I think not over from five to ten minutes before commencing to write the affidavit; the reasons given were to obtain whatever facts he possessed regarding the making of the Tallman well.

X Q. 103. Did Getman inquire of you what use you intended to make of his affidavit or statement, and what did he say on that subject?

2238 A. I do not know that he did, and do not know that he asked the reason.

X Q. 104. What is your best recollection as to whether or not he did inquire your object in procuring his affidavit?

A. I have no recollection about it.

X Q. 105. Have you any recollection of what he said about it?

A. The only recollection is that I wrote down what he stated; I do — know that he said anything to me about what it was to be used for.

X Q. 106. Will you swear that he did not inquire of you what use you intended to make of this affidavit, or that in substance?

A. No, sir.

X Q. 107. Did Getman read the affidavit after you had drawn it?

A. I cannot say whether he did or not; my impression is that I read it to him after completing it, at his barn, and either Esquire Daly, Getman, or myself read it over before it was subscribed to, at the hotel.

X Q. 108. Where did Getman sign his name to the affidavit?

A. I cannot say whether at the barn or hotel.

X Q. 109. Did he subscribe it with his name or with his mark?

A. The name was written out.

X Q. 110. By Mr. Getman, or by some one else?

A. By Getman.

X Q. 111. Was Getman's name written with a pencil or with a pen?

A. Pen and ink.

2239 X Q. 112. Has Mr. Getman made more than one affidavit or statement in relation to the Tallman well, to your knowledge?

A. No.

X Q. 113. Did you procure the affidavit of any other person than Mr. Getman in relation to the Tallman well; and, if so, whose, and when and where did you procure it?

A. I procured the affidavit of James Ready about the middle of November, 1877, at Otisco Valley, New York; no others.

X Q. 114. Has the affidavit of Getman been changed in any respect since the day it was subscribed and sworn to by him?

A. Not to my knowledge.

X Q. 115. In whose possession are the affidavits of Ready and Getman at present?

A. I suppose them to be in the possession of William D. Andrews or his counsel.

X Q. 116. At whose suggestion did you procure these affidavits of Getman and Ready, and at whose request did you go to Preble on the occasion you have mentioned?

A. I think they were taken on my own motion; Messrs. Andrews requested me to go to Preble and get what facts I could concerning the Tallman well.

X Q. 117. From what source did the Messrs. Andrews derive their knowledge of the existence of the Tallman well?

A. I do not know.

X Q. 118. Where did you find Mr. Ready on the occasion when you procured his affidavit?

A. At a farm-house in Otisco Valley.

X Q. 119. By whom occupied?

A. I saw Mr. Ready and a woman there and suppose they occupied it; I do not know.

X Q. 120. Do you understand this house to have been his residence?

A. I do not, but suppose it to be.

X Q. 121. What was first said when you met Mr. Ready, and by whom was it said?

A. I inquired of him if he had ever worked for William E. Tallman.

2240 X Q. 122. What reply did he make?

A. He said he had.

X Q. 123. Did he state when?

A. I think he did.

X Q. 124. When did he say that he worked for William E. Tallman?

A. My impression is, from August 18th, 1857, for several succeeding years.

X Q. 125. What work did he say he was employed at during the time he worked for Tallman?

A. I do not know that he specified the kind of work.

X Q. 126. What next was said between you after Ready had answered your inquiry above stated by you?

A. I asked for all the facts he could give me regarding the making of the well over which the windmill had formerly stood.

X Q. 127. What reply did he make to that request?

A. His reply I wrote down; in substance it was that he had assisted in making said well.

X Q. 128. Did he tell you who assisted him; and, if so, whom did he say it was?

A. He did; T. J. Getman and William E. Tallman.

X Q. 129. What further, if anything, did he say that he did in connection with William E. Tallman and T. J. Getman with respect to the well in question?

A. He said for years after the windmill was erected and while the hands were at work in fields near it he used to climb down the walls of the well and dip up water for the hands to drink.

X Q. 130. Did he make any other statement in relation to this well or to the manner of its construction? If so, please state fully and at large what he said.

A. He did make other statements, which I wrote out and he subscribed and swore to, one of which other statements is, as I remember, that the well contained two feet of water; he mentioned the windmills running for two or three years over said well; when he dipped up the water the windmill was not running. This gives the substance of what he said.

2241 X Q. 131. And the substance of the foregoing answer was incorporated by you in the form of an affidavit, which he subscribed and swore to?

A. It was.

X Q. 132. Was the affidavit made by him entitled in any cause, and what was the form of the heading thereof?

A. It was not entitled in any cause; it commenced, as near as I remember, with his name, age, and residence.

X Q. 133. Was any venue named in the affidavit?

A. After completing this statement Mr. Ready took his own team and drove with me across the valley to what he said was the office of a justice of the peace; the justice not being at home, I left the affidavit with Mr. Ready; he promised to make oath to it and send it to me by mail, which he did; I think the name of the justice before whom it was subscribed and sworn is Sweetland, and the usual jurat was attached.

X Q. 134. Was any county or State mentioned at the beginning of the affidavit?

A. There may have been, but I think not.

X Q. 136. Did Mr. Ready inquire of you your object or purpose in procuring this affidavit respecting this Tallman well, and what did you inform him was your purpose or object in procuring the affidavit?

A. I do not know that he made such inquiry; I told him I wanted to fix the precise time of its construction.

X Q. 137. From whom did you learn that Mr. Ready knew anything about the Tallman well?

A. I cannot say; I made inquiries of many people at Preble, all of whom were strangers to me, and some of whom stated to me that he had worked for William E. Tallman at the time the windmill was erected.

X Q. 138. Did you learn from some one at Preble that Mr. Ready had worked for William E. Tallman at about the time the windmill was erected?

A. I did.

X Q. 139. What was your purpose or object in obtaining these affidavits of Mr. Getman and Mr. Ready?

A. To get the truth regarding the date and making of the Tallman well.

2242 X Q. 140. Why was it necessary to have these statements made by Getman and Ready sworn to? Could not the truth have been obtained as well without placing these gentlemen under oath?

A. My experience is that most men will come as near telling the truth under oath as in an off-hand statement or in circulating idle rumors. I do not know that it was necessary.

X Q. 141. Had you any other object or purpose in view, directly or indirectly, in procuring Ready and Getman to make oath to their several statements in relation to the Tallman well?

A. None whatever.

X Q. 142. Was there no object in putting these statements in the form of an affidavit, and why were they put in this form rather than in any other?

A. I was not after the particular form of expression, but facts only.

X Q. 143. These affidavits would have been as useful for your purposes in any other form, would they not?

A. Had they have contained the same facts they would.

X Q. 144. Why, then, put these facts into the form of an affidavit, if facts only were wanted?

A. These men were strangers to me. I thought a statement accompanied by an affidavit would be as reliable as without one.

X Q. 145. Was it not your purpose to forestall them as witnesses in case they should be called and sworn in any action or defense involving the validity of reissue patent No. 4372?

A. Not at all.

X Q. 146. Was it not for the purpose of fixing their status as witnesses in the driven-well controversy which was then pending or imminent or which might thereafter arise?

A. It was not. I took these affidavits because I wanted to send them to the Messrs. Andrews for the purpose of showing what the men who made the Tallman well had said under oath regarding its construction, and for no other purpose.

Proceedings adjourned until Tuesday, September 7th, 1880, at 9.15 o'clock a. m., at this place.

2243 TUESDAY, *September 7th*, 1880—9.15 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of NOAH J. PARSONS resumed:

X Q. 147. What inducement did you offer to Mr. Ready to get him to take his team and go to a justice of the peace and afterwards to make his affidavit or make oath to the statement of facts which you had written?

A. I offered to pay him for his time.

X Q. 148. Did you pay him anything; and, if so, how much?

A. For his taking his own team, driving to the justice's, his time, and the feeding of my team I think I paid him one dollar.

X Q. 149. Did you promise him any reward for anything he might do in the future on that or any subsequent occasion?

A. I did not at that time. I went and saw him this summer and said to him we should probably want to call him as a witness, which, if we did, I would pay him for his time and expenses.

X Q. 150. Is that the only arrangement or promise of reward or inducement made by you to Mr. Ready?

A. It is.

X Q. 151. Did he tell you who was present at the time when the Tallman well was completed and arrangements perfected for pumping water therefrom by means of a windmill? If so, whom did he say was present?

A. I do not know that he said anything about the well's being completed or arrangements perfected as to the windmill; he did say William E. Tallman, T. J. Getman, and himself made the well.

X Q. 152. Did he tell you who was present when the well was completed?

A. I do not remember of his mentioning any other parties than the three above named.

2244 X Q. 153. Will you produce the affidavits of James Ready and T. J. Getman before this notary in this action for inspection and for use in this case?

A. Personally I have no objection to doing so, but it is physically impossible for me to comply with the request.

X Q. 154. Why is it physically impossible for you to comply with this request?

A. The affidavits are not in my possession nor under my control.

X Q. 155. When next did you go to Preble—I mean after your interview with Getman at the time you procured his affidavit?

A. My best impression now is, the next day or the next day but one.

X Q. 156. Whom did you see on this occasion at Preble?

A. I cannot give the name of a single individual, but I inquired of several parties, each of whom were strangers to me, as to where William E. Tallman and James Ready could be found.

X Q. 157. Did you learn where these persons then were, or where they might be found?

2245 A. I did.

X Q. 158. What did you learn concerning them?

A. I learned that Mr. Tallman lived in Syracuse, and that Mr. Ready lived at Otisco Valley.

X Q. 159. What further did you do on that occasion?

A. I went and saw and had interviews with both men. Which I went see first I cannot now say, but I saw each of them within two or three days.

X Q. 160. Were you alone on this occasion of your visit to Preble; and, if not, who was with you?

A. I went alone.

X Q. 161. Did you get an affidavit or statement from William E. Tallman respecting the well over which the windmill was erected on the premises formerly occupied by him in Preble?

A. I did, but not at that time.

X Q. 162. When did you get such affidavit or statement of William E. Tallman?

A. About a month later, and while I had an office in the Empire House at Syracuse.

X Q. 163. What was the date of procuring the affidavit or statement of William E. Tallman, as you have stated?

A. It was about the 12th of December, 1877. I did not get an affidavit from him, but a statement as to the making of the Preble windmill well.

X Q. 164. Was that statement in writing; and, if so, in whose handwriting was it?

A. It was not in writing, but given in a conversation.

X Q. 165. Where was this statement made, and who was present?

A. It was made in my office at the Empire House in Syracuse.

Whether there was any one else present or not, I am unable to say.

X Q. 166. Did you make any memorandum in writing of William E. Tallman's statement on that occasion?

A. I did.

X Q. 167. Where did you make the memorandum?

A. There in my office.

X Q. 168. Was Mr. Tallman present when you made it?

A. He was not; I made it just after he left.

X Q. 169. Did you ask him to sign or make oath to it?

2246 A. I did not; he was not there and never knew that I made it, as I know of.

X Q. 170. Why did you not pursue the same course with respect to the statement made by William E. Tallman that you did pursue in respect to the statements of Getmen and Ready, in procuring them to be sworn to?

A. I do not know that I can give any reason why I did not.

X Q. 171. Where is the memorandum of the statement made to you by William E. Tallman on that occasion?

A. It is in my diary for the year 1877.

X Q. 172. Where is the diary?

A. It is at my house, I suppose.

X Q. 173. Will you produce the diary and permit me to see the memorandum?

A. I have no objection to doing so, provided I can find it.

X Q. 174. Will you make an effort to find it?

A. Yes.

X Q. 175. What was the occasion of William E. Tallman's presence at your office at the time the statement was made by him, as you have testified?

A. Mr. Tallman called at my office and spent several evenings during the twenty days that I had an office in Syracuse; by invitation I spent an evening with him in his family. I cannot state on which of these evenings I wrote the statement in my diary.

X Q. 176. Did you write down the language of Mr. Tallman or the substance thereof?

A. Not all of what he said on any occasion; what I did indite or write was a statement of what he said, so far as it went.

X Q. 177. Was the statement which you wrote down made at one time and consecutively, or was it made at different times and on different occasions?

A. It was made at one time.

X Q. 178. Was it made voluntarily or in response to inquiries and questions put by you?

A. Voluntarily.

2247 X Q. 179. Was Mr. William E. Tallman informed of your intention to make a memorandum of this statement?

A. He was not.

X Q. 180. When were you at Preble on business relating to the Tallman well the third time?

A. I think I drove through there when I went to see Ready, about the middle of November, 1877.

X Q. 181. Did you stop at Preble; and, if so, what did you do and whom did you see?

A. Only to inquire the way. I saw many people in the eighteen miles' drive whose names I do not know.

X Q. 182. Did you have an interview with any person on matters relating to the Tallman well; and, if so, with whom?

A. James Ready.

X Q. 183. With any other person?

A. With J. M. Blanchard.

X Q. 184. Where did you find him, or did he go with you?

A. He went with me.

X Q. 185. Was that the occasion when the statement sworn to by Mr. Ready was drawn by you?

A. It was.

X Q. 186. Have you now stated in a general way all that transpired in relation to the Tallman well on the occasion of going to see Ready?

A. All I remember of it.

X Q. 187. When were you at Preble the next or fourth time on business relating to the Tallman well?

A. July 28th, 1880.

X Q. 188. Who went with you on that occasion?

A. J. M. and W. T. Blanchard and my little boy.

X Q. 189. Whom did you see at Preble on that occasion?

A. I saw many people whose names I cannot give.

X Q. 190. Anybody that you knew?

A. I saw no man that I knew, except those that went with me.

X Q. 191. What did you do?

A. I drove several miles, dug some dirt, and drove a pipe.

2248 X Q. 192. What time did you arrive at Preble?

A. About 10 o'clock a. m.

X Q. 193. Where did you go, and what did you do when you first got there?

A. I drove to a barn nearest this old Tallman well and made inquiries of Thomas Ballard.

X Q. 194. What inquiry did you make of Thomas Ballard?

A. I asked him to point out the location of the old wall.

X Q. 195. Did he comply with your request?

A. He did.

X Q. 196. What did you do next?

A. Removed dirt and found the wall.

X Q. 197. Was there anything upon the surface to indicate where the well was located; and, if so, what was it?

A. I did not see anything.

X Q. 198. How far below the surface of the earth was the top of the wall of the well?

A. About six inches.

X Q. 199. What was the nature of the surface over the well?

A. Gravelly soil.

X Q. 200. Was the surface level or otherwise over the well?

A. Otherwise.

X Q. 201. Please describe it.

A. It was on the west bank of a slight depression or ravine, which descends from the west wall from six to ten feet east.

X Q. 202. Was the surface of the ground higher west of the well than it was immediately over the well?

A. It was.

X Q. 203. About how much higher?

A. From one to two feet, I think; I never measured it.

X Q. 204. Was the surface higher above the wall on the western side of the well than it was on the eastern side?

A. It was.

2249 X Q. 205. About how much higher?

A. Perhaps two or three inches.

X Q. 206. In estimating the distance from the surface of the ground over the well to the top of the wall, which side of the well do you take into consideration, and at what point did you make a measurement of the distance from the surface of the ground to the top of the wall?

A. The estimate is from all sides of the wall; I made no measurement of the depth of the earth above the top of the wall.

X Q. 207. Is the wall on either side of the well higher than at other points now; and, if so, which side is the highest?

A. The east side is highest, or was when I last saw it.

X Q. 208. Has any portion of the wall been removed to your knowledge?

A. It has.

X Q. 209. What portion and at what point has it been removed?

A. Stones from all parts of it have been taken off.

X Q. 210. State by whom this was done, if you know.

A. It was done by the Blanchards and myself, or a portion of it.

Adjourned until 1.15 o'clock p. m.

1.15 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of NOAH J. PARSONS resumed:

X Q. 211. Has any part of the wall of this well been removed, to your knowledge, since the well was cleaned out?

A. Yes, sir.

X Q. 212. When and by whom was it done?

2250 A. On two different occasions; when pulling a ladder out of the well, stones have been pushed off the top of the wall by myself.

X Q. 213. Do you mean pushed off into the well?

A. No.

X Q. 214. Where were the stones pushed to?

A. By drawing the ladder I loosened them with my feet, picked them up, and threw them back.

X Q. 215. When did this occur?

A. The last of it a week ago Monday.

X Q. 216. How many stones were thus removed and to what extent did their removal diminish the height of the wall above the bottom of the well?

A. A layer, I should think, a third of the way around; I never counted the stones or measured their thickness, but should judge their number to be eight or ten; they diminished the wall six or eight inches in height.

X Q. 217. From which side of the well were these stones thus removed?

A. Mainly the west.

X Q. 218. When did you last see this well?

A. A week ago yesterday.

X Q. 219. Was there not then a stone or stones in the wall on the west side of the well and on top of the wall, the position of which has remained substantially unchanged since the well was opened and cleaned out?

A. I could not say positively, but think such to be the case.

X Q. 220. Did you find a decayed timber on the easterly side of the well, the end of which appeared over the eastern wall of the well—I mean above the wall of the well and near the surface of the ground?

A. I saw a strip of board, which may have been an inch thick and about six inches wide, four to six inches of the end of which was visible; no other timber, to my knowledge, did I see in that place.

X Q. 221. Did you not discover a decayed timber several inches square, apparently of some hard wood, on the easterly side of the well, over which the earth removed from the well was piled, or a portion thereof, and which had apparently extended across the wall of the well or near it, on the southerly side thereof, the end of which appears near the mouth of the well and under the earth piled above it? 2251

A. I have no remembrance of any such timber, though it may have been there; my object was to find the bottom of the well, and I paid no particular attention to what we found at the top.

X Q. 222. Did not the earth appear to have been scraped over the mouth of the well to several inches in depth, and had not the mouth of the well been cultivated over with the remainder of the surface of the field in which it is located, and did you not find the grass growing over the mouth of the well and the surface above the mouth of the well in apparently the same general condition as that of the rest of the field?

A. There was nothing upon the surface to indicate where the well was; there was six or eight inches of soil above the wall.

X Q. 223. This six or eight inches of soil must necessarily have been placed above the wall and over the mouth of the well; is not this so?

A. No.

X Q. 224. In what way, then, do you account for the existence of a soil or earth six or eight inches deep above the wall and over the mouth of the well?

A. I do not pretend to account for it; it may have been by lowering the wall or by filling over it.

X Q. 225. Did not the surface of the earth above the wall and over the mouth of the well have the appearance of having been cultivated not long since, in common with other portions of the field ?

A. It did; all portions looked alike.

X Q. 226. Did you not discover, in a westerly direction from the well, stones and cement of lime and sand which had the appearance of having once been a portion of a reservoir or a cistern?

A. I saw what appeared to be cement and stone; what it had once been I cannot say.

X Q. 227. Were these stones and cement mainly found upon a slight knoll or elevation ten or fifteen feet from the well in a westerly direction?

A. In a northwesterly direction they were.

2252 X Q. 228. Did you discover pieces of iron gas pipe in the neighborhood of these stones and mortar which appeared on a slight knoll or elevation in a northwesterly direction from the well, as you have stated?

A. I did not.

X Q. 229. Did you discover any iron gas pipe near the well? And, if so, state where you saw it, with reference to the well.

A. In the next field south, three or four rods southwest from the well, a piece of gas pipe stuck up about six inches above the surface of the ground.

X Q. 230. What was the size of this gas pipe?

A. About an inch and a quarter in diameter; Mr. Thomas Ballard dropped his knife into this pipe; he then dug around it and found it extended perpendicularly eight or ten inches, then horizontally three or four feet, which he took out and found his knife, as he informed me.

X Q. 231. In which direction did that portion lying horizontally extend from the point where the perpendicular portion appeared above the surface of the ground?

A. Nearly north.

X Q. 232. Did it extend towards the knoll upon which the cement and stones mentioned are found?

A. Yes, sir.

X Q. 233. Did you measure the distance from the top of the wall to the bottom of the well? And, if so, please state the results of that measurement.

A. I did not.

X Q. 234. How did you ascertain or arrive at the point which you determined to be the surface of the ground over the mouth of the well and from which you measured to the bottom of the well?

A. By laying a board across from each side and measuring from the board to the bottom of the well.

X Q. 235. At what point did you place the board and in what direction across the mouth of the well to arrive at what you determined to be the surface of the ground?

A. The board lay a little to the east of north on one side of the well and to the west of south on the other; the measurement was from nearly the centre of the well.

2253 X Q. 236. Did you measure the distance from the surface of the ground to the surface of the water in the well; and, if so, what did you find it?

A. I did; twelve feet and six inches.

X Q. 237. When was this measurement made and who was present?

A. July 28th, 1880; the two Blanchards and myself.

X Q. 238. With what instrument did you measure it?

A. A tape-line.

X Q. 239. Who assisted you?

A. No one.

X Q. 240. Did you attach a weight or plummet to the tape-line and drop it into the well to measure the distance from the surface of the water in the well to the surface of the earth, or what method did you pursue in making this measurement?

A. I had a lead tied to a piece of twine that I dropped down the pipe, withdrew and measured with a tape-line.

X Q. 241. Then you first drove a pipe and inside the pipe dropped the line with a lead attached to one end and measured the string; is not this so?

A. It is.

X Q. 242. What was the diameter of the bore of the pipe which you thus drove?

A. I think an inch and a quarter.

X Q. 243. What sort of a string or twine did you use in making the measurement inside the pipe?

A. Ordinary wrapping twine; its color was white; it was of cotton, I think.

X Q. 244. How did you determine or arrive at the point which you assumed to be the surface of the ground in this measurement?

A. By placing a stick across the well, either end resting on the surface of the ground, and deducting the height above the stick from the total length of the pipe above it.

X Q. 245. How did you ascertain the point to which the water rose in the pipe?

A. by the twine being wet.

2254 X Q. 246. How far into the water did you drive the pipe?

A. From eight to twelve inches.

X Q. 247. Did you make any memorandum or entry of the result of the measurements made by you at this well?

A. Yes, sir.

X Q. 248. Where did you make them and in what book or on what paper, and when did you make them?

A. At the well, in an old blank book, on ordinary white paper, July 28th, 1880.

X Q. 249. Did you enter the date of making these measurements, together with the memoranda of the measurements?

A. I did.

X Q. 249. Did you make any allowance for capillary attraction in the measurements made by you; and, if so, what allowance did you make?

A. No allowance for attraction was considered; I simply measured the depth to water.

X Q. 251. Did you make any allowance for the stretching of the twine in making the measurement from the surface of the ground to the surface of the water in the well; and, if so, what allowance did you make on that account?

A. No allowances were made.

X Q. 252. About what was the weight of the lead attached to the end of the twine with which you made this measurement?

A. I judge, three or four ounces; I never weighed it.

X Q. 253. You made this measurement, then, did you not, before the well was cleaned out?

A. Yes, sir.

X Q. 254. What else did you do on the 28th day of July with reference to the Tallman well?

A. I drove to several neighboring houses and asked parties to come and measure the distance to water; a Mr. Callen and Matthias Van Hoesen came and did measure; then the Blanchards and myself worked awhile at cleaning out the well; after getting down two
feet and two inches from the surface we found a strip of
2255 board; we removed the stone and dirt from around this board
until five or six feet of its upper end was visible; we then drew this board with a chain and lever out to the surface; we also drew out a piece of about four-inch scantling five or six feet in length; we then worked at cleaning out the stone and dirt until about six o'clock, when we started for Cortland.

X Q. 255. Against which side of the wall of the well did the strip of board you have mentioned rest?

A. The west side.

X Q. 256. Did you measure the distance from the top of the wall of the well to the end of the strip of board where it rested against the wall?

A. I did not.

X Q. 257. About what was the distance from the upper end of this strip of board to the top of the wall of the well?

A. I do not know; some of the stones in the top of the wall were thrown out in digging to find the location of the well.

X Q. 258. About what was the distance from the upper end of this strip of board to the top of the wall of the well, as the wall was when you last saw it?

A. Somewhere from ten to fourteen inches, I think.

X Q. 259. Did the foot of this strip of board, from its direction and position, apparently rest at or near the bottom of the well on the side of the well opposite to that where the upper end rested against the wall?

A. Five or six feet only of this board was visible when we hitched the chain on to draw it; at that depth I think it was six inches from the wall; I cannot say where the bottom rested.

X Q. 260. It may have been sunk into the earth at the bottom of the well, for aught you know, to the depth of several inches, may it not?

A. I cannot say what might have been.

X Q. 261. When next after the 28th of July, 1880, did you visit this well?

A. Either the next day or the day after.

X Q. 262. What did you do on the occasion of your second visit with reference to the Tallman well?

2256 A. I hired Thomas Ballard to clean it out to the bottom of the well.

X Q. 263. Did you make any measurements on the occasion of this visit; and, if so, what?

A. I do not think I made any.

X Q. 264. Who, besides yourself and the Blanchards mentioned by you, were engaged in cleaning out this well previous to Mr. Ballard's work in cleaning out the same?

A. I asked Matthias Van Hoesen the first day I was there to get a well digger to clean it out, which he promised to do.

X Q. 265. Do you know whether or not Mr. Van Hoesen did employ a well-digger to clean out this well and whether or not a well-digger did remove any material from this well?

A. He told me he did, and that he did clean it out so that water was just visible.

X Q. 266. What reason did he assign for not digging the well out deeper?

A. I did not see Mr. Van Hoesen from the night I was first there until Ballard commenced cleaning it out. He stated that the well-digger, Weeks, claimed that he had got to the bottom of the wall the first time I did see him after the night I have mentioned.

X Q. 267. Did you see the well when it was cleaned out to a depth so that water was just visible and to the point where it was left by Weeks, the well-digger?

A. I saw the well when water was just visible, but whether then it was as the well-digger left it I do not know. I never have seen this well-digger, to my knowledge.

X Q. 268. What month and what day of the month was it that you saw this well when water was just visible at the bottom thereof?

A. July 30th, 1880.

X Q. 269. Was it on that day that you employed Thomas Ballard to clean out this well still deeper, as you have stated?

A. It was.

2257 X Q. 270. Did he begin the work of cleaning it out deeper that day; if not, when did he do so?

A. It was the same day.

X Q. 271. What time in the day did you arrive at the well or at Mr. Ballard's?

A. I think just before noon. I do not remember exactly.

X Q. 272. Did Mr. Ballard finish cleaning out the well that day?

A. Nearly so.

X Q. 273. When did you learn from Ballard that he had found the sheet-iron curb or thimble and the copper strainer mentioned by you on your direct examination?

A. July 30th, 1880.

X Q. 274. Were you present at the well while Mr. Ballard was engaged in cleaning it out?

A. I was not.

X Q. 275. Where did you go after you had employed Mr. Ballard to clean out the well on the 30th of July, as you have stated?

A. I went to Otisco Valley.

X Q. 276. What did you go to Otisco Valley for on that occasion?

A. To subpœna James Ready.

X Q. 277. Did you subpœna him; and, if so, what was the title of the action in which you subpœnaed him?

A. I verbally asked him to come to Cortland August 10th, 1880. I served no subpœna. He promised to come. I paid him for coming, and he did come August 10th, 1880.

X Q. 278. Did you tell him on that occasion that the Tallman well had been found and excavations made therein?

A. I did. I asked him to stop to identify it and measure the depth of water in it when on his way to Cortland.

X Q. 279. Did you tell any one before Mr. Ballard cleaned out the Tallman well to its present depth that an iron cylinder and strainer had been found therein or anything of that import?

2258 A. Ballard has cleaned the well since the cylinder was found deeper than he did on the day of finding it. I never told any man that a strainer and a cylinder had been found previous to the evening of July 30th, 1880, nor anything of that import or nature whatever, that being the evening that I first learned of the existence of said articles.

X Q. 280. Did you tell any person, previous to the evening of the 30th of July, 1880, that an iron cylinder had been or would be found in the Tallman well, or anything of that import?

A. No; nor nothing of that import.

X Q. 281. Did you mention an iron cylinder in conversation with any person, with reference to the Tallman well, previous to the evening of the 30th of July, 1880; and, if so, who was present at that conversation, and when and where did it occur?

A. William E. Tallman told me, about the 12th day of December, 1877, at Syracuse, New York, that after digging this well and stoning it up it went dry. He then took an iron cylinder, sunk it in the bottom of the well, cleaning the dirt out inside of it, and again obtaining water. T. J. Getman, about the middle of November in the same year, told me the same thing. These statements I may have repeated. I know that I have to some. The times when and where I have repeated them I cannot give.

X Q. 282. When did you first measure the depth of the water in this Tallman well?

2259 A. July 28th, 1880.

X Q. 283. When next did you measure it?

A. The evening of the 30th of July, on my return from Otisco.

X Q. 284. What depth did you find the water in this well on the 28th of July, 1880.

A. My measurement on the 28th of July was inside the driven pipe spoken of. I did not measure the depth of water, but simply the distance from the surface of the ground to water. This distance was twelve feet and a half.

X Q. 285. Did you make a search for your diary of 1877 during the recess for dinner to-day; and, if so, did you find it?

A. I never thought of it when I went to dinner, but I will produce it, if desired, in twenty minutes.

X Q. 286. Please produce it when next you appear to be examined before this notary.

A. I will do so.

X Q. 287. Have you made any measurement of the depth of water in this well since the evening of the 30th day of July, 1880; and, if so, how many times, and when?

A. I have. I measured it a week ago yesterday, finding fifteen inches of water. I do not remember of having measured it at any other time since the date mentioned.

X Q. 288. With what instrument did you measure the depth of water on the evening of the 30th of July and a week ago yesterday?

A. On the 30th of July with a tape-line; a week ago yesterday with a stick and a common carpenter's rule.

X Q. 289. Did you go down into the well to make either of these measurements?

A. I did; the last one.

X Q. 290. How did you use the tape-line in measuring the depth of water on the 30th of July?

2260 A. Let it down into the well from the surface.

X Q. 291. Did these measurements differ in their respective results?

A. They did.

X Q. 292. On which occasion did you find the water the deeper of the two?

A. The first.

X Q. 293. How much deeper was it on the former than on the latter occasion?

A. Three inches.

X Q. 294. To what fact was this difference due?

A. I do not know; ordinarily water is lower in September than in July.

X Q. 295. The months of June and July of the year 1880 were unusually dry for this climate, were they not, and the streams unusually low?

A. I was in Ohio this season from April 21 to the first week in July, and cannot say of my own knowledge whether streams were unusually low or not.

X Q. 296. An unusually large quantity of rain for the month of August in this climate has fallen during that month and the latter part of July, in the present year, has there not?

A. I think there has, but, as I believe, not enough to affect the streams.

X Q. 297. Will you swear that the streams in Preble and in the vicinity of this well were not higher a week ago than they were the last week in July of this year ?

A. I have no knowledge whatever on the subject, and will not so swear.

X Q. 298. Have you made no observation of the streams in Preble and vicinity, with reference to their comparative height and the quantity of water they contained during the last week in July and first week in September of this year?

A. I have not.

X Q. 299. What object had you in view in employing Thomas Ballard and others to clean out the Tallman well?

A. I wanted to find the bottom of the wall of the well.

X Q. 300. Was that the only object in digging it out?

2261 A. It was.

X Q. 301. The finding of the sheet-iron hoop or cylinder and the copper strainer was no portion of the original purpose for which this excavation was made, was it?

A. It was not.

X Q. 302. How many times have you been down into this well since it was cleaned out to its present depth?

A. Two or three.

X Q. 303. When. Please state the dates.

A. I think I was down twice a week ago yesterday. I cannot state the other days I was in there positively, but it was one of those days in the latter part of July.

X Q. 304. Was the water pumped in July from the well on either of the occasions when you was down into it; and, if so, on which occasion?

A. It was, and week ago yesterday.

X Q. 305. Was the water removed to such an extent that you could see the bottom of the wall of the well without difficulty?

A. It was.

X Q. 306. You stated on your direct examination that the stones used in the construction of this wall at the bottom of this well were thin, flat stones, did you not?

A. I did not; I stated that they were flat stone, but said nothing about their being thin, as I remember it.

X Q. 307. About what was the thickness of the stones employed in the construction of this wall at and near the bottom of the well?

A. To guess at it, I should say from one inch to two and one-half inches.

X Q. 308. And the face of the wall in the interior of the well where these flat stones were used was much more irregular than at points above, where cobble-stones mainly composed the wall, was it not?

A. Perceptibly more irregular, but not to a great extent.

X Q. 309. The wall contracted considerably towards and as you approached the bottom of the well, did it not?

A. It contracts some, being smallest at the bottom.

X Q. 310. These flat stones in the wall at and near the bottom of the well protrude beyond the face of the wall above, and the nearer the bottom the more they protrude, presenting angular and irregular surfaces, do they not? 2262

A. To some extent this is so; the stones are irregularly laid up for about two feet from the bottom.

X Q. 311. But little attention appears to have been paid to making a regular or even face to the wall near the bottom where these flat stones are used in its construction; is not this so?

A. I cannot state what attention was paid; I can only give the appearance as I saw it and have already stated it

X Q. 312. Are there not some indications that these flat stones or a portion of them have been thrust under the bottom of the wall of the well since the well was stoned up?

A. I saw no such indications.

Proceedings adjourned until Wednesday, September 8th, 1880, at 8.30 o'clock a. m., at this place.

WEDNESDAY, *Sept.* 8, 1880—8.30 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of NOAH J. PARSONS resumed:

X Q. 313. What kind of a pump did you use to remove the water from the Tallman well on the 30th day of August, 1880?

A. It was a galvanized iron pump, with about a three-inch suction pipe.

X Q. 314. What do you mean by a three-inch suction pipe? Please explain.

A. The barrel of the pump in which the plunger worked was about three inches in diameter.

X Q. 315. Did this barrel extend into the water while the pump was in use?

A. It did.

X Q. 316. And was it the same diameter from the point where the water entered the pump to the point where it was discharged?

2263 A. I think it was.

X Q. 317. How many valves did this pump contain, and where were the same located?

A. Two; the lower one was about six feet from the bottom of the pump and the other was on the lower end of the plunger rod.

X Q. 318. What was the shape of the valve at the lower end of the piston or plunger rod, and of what material was it made?

A. The shape of an inverted cone; made principally of leather; there may have been some iron about it; I did not notice it in particular.

X Q. 319. Please describe the valve in the barrel of the pump.

A. That valve was similar to the lower valve used in all cistern or well pumps with which I am acquainted.

X Q. 320. Is it that form of valve commonly known as a lift or check valve?

A. I do not know the name by which it is designated; it opens when the plunger is worked upward, and closes down so as to hold what water is above it when the working of the plunger stops.

X Q. 321. Did this valve work on a hinge or flexible piece of leather, or was it a ball or some other shape fitted so as to close the orifice in the valve?

A. A flexible piece of leather.

X Q 322. How nearly was the water removed from this well with this pump?

A. All within about an inch.

X Q. 323. Was the pump worked with a lever; and, if so, what was used as the fulcrum, and how was the lever supported and held in position?

A. There was a cross-piece about four inches from the upper end of the plunger rod; two men took hold of this cross-piece, one on either side, and worked it up and down.

X Q. 324. Was this cross-piece attached to the plunger or piston of the pump?

A. It was.

2264 X Q. 325. And was the piston or plunger worked by means of raising and lowering this cross-piece?

A. Yes, sir.

X Q. 326. About how many gallons of water were removed from the well?

A. I could not say.

X Q. 327. Please give an approximate estimate of the number of gallons of water removed from the well with this pump.

A. To guess at it, I should say between two hundred and two thousand; the water was pumped out on the ground and no measurement taken of it.

X Q. 328. About how many strokes of the piston or plunger were made in removing this water?

A. I cannot say.

X Q. 329. Give the number, as near as you are able.

A. I do not not know anything about it.

X Q. 330. About how much time was occupied in removing this water from the well?

A. I think, the first time it was pumped out, about fifteen minutes.

X Q. 331. How many times was it pumped out?

A. I could not say; after pumping the water down as low as the pump would draw it we kept it running whenever the water came in in sufficient quantity to supply it while we remained there.

X Q. 332. How long did you remain there, engaged in the examination of this well, on this occasion?

A. I think about a half hour; it may have been three-quarters.

X Q. 333. Was the pump used by you to remove the water from this well of the kind and construction usually called a boat pump?

A. I am not clear as to what a boat pump is, but I think it was.

X Q. 334. Who, if any one, went down into this well and examined the same after the water had been removed?

A. Thomas Ballard, T. J. Getman, Eben Daly, and myself.

2265 X Q. 335. Who else was present?

A. Matthias Van Hoesen, William D. Andrews, and either a Mr. Haviland or a Mr. Aldrich.

X Q. 336. How came all these persons to be present; were they there by invitation; and, if so, by whose request?

A. At my request, with the exception of Mr. Andrews.

X Q. 337. What was done in the bottom of this well, if anything, on this occasion?

A. The bottom was tested with a crowbar, to ascertain whether it was hard or otherwise.

X Q. 338. Describe briefly the manner in which it was tested.

A. By taking a crowbar and striking it down.

X Q. 339. Of what material was the bottom composed?

A. Gravel.

X Q. 340. Gravel alone, or intermingled with stones of larger size?

A. I saw no stone on the bottom that would exceed two inches in diameter, excepting those laid up in the wall.

X Q. 341. Was the gravel at the bottom of the well intermingled with sand?

A. I think some coarse sand.

X Q. 342. Was not some of this sand and gravel removed in the proces of cleaning out the well?

A. There was sand, loam, stone, and gravel removed in cleaning it out.

X Q. 343. Did you ever examine the materials of which the earth is composed where the steam shovel has been at work this summer, on the premises of Moses T. Tallman, along the track of the Syracuse, Binghamton and New York Railroad Company, and in the neighborhood of half a mile in a southerly direction from this well?

A. I never did.

X Q. 344. Have you been at the place where this steam shovel has been at work this summer, as above described?

A. I have not.

2266 X Q. 345. By whom was the bottom tested with the bar as above stated by you?

A. Each of the men that went down into the well at that time did so.

X Q. 346. How many times have you been at this Tallman well since the 28th day of July, and including that day?

A. Six or eight times, I think.

X Q. 347. Mr. Parsons, I now ask you to place the copper strainer upon a plane surface resting upon its convex circular face and give me its total perpendicular height in that position.

A. About four inches and three-quarters.

X Q. 348. Does not the neck of this strainer taper slightly from the outer orifice towards the funnel-shaped portion of the strainer?

A. The two inches of the neck inside measures very nearly the same the whole length; if any difference it is slightly smaller at the point where it is soldered to the strainer.

X Q. 349. When did you obtain your interest in reissue patent No. 4372 for the State of Iowa, excepting the six or eight counties, as you have stated?

A. I think the assignment bears date October, 1878.

X Q. 350. Was the assignment executed and delivered at about the time it bears date?

A. It was executed that day.

X Q. 351. Has it ever been recorded in the Patent Office?

A. It has.

X Q. 352. Previous to July, 1879, were you the owner of any real estate in this county; and, if so, what?

A. The title of a house and lot on Tompkins street, in this village, stood in my name.

X Q. 353. Have you since conveyed away this property by deed of conveyance?

A. I have.

X Q. 354. Who has the title of this property now?

A. My wife, subject to a mortgage that has been standing five years and over.

2267 X Q. 355. What was the date of the conveyance from you to your wife?

A. I cannot give the day, but it was some time in the summer of 1879.

X Q. 356. What month was the conveyance made?

A. I think about the first of August.

X Q. 357. Did you make the conveyance of this property in view of the fact, or was you induced to make this conveyance by reason of the fact, that you had engaged in litigation over the driven well patent, and had the fact that you were engaged in such litigation any influence with you in making this conveyance of your real estate to your wife?

A. I did not; traveling on the road most of the time, my wife and I had often regretted that when we purchased the place the title was not taken in her name. Being about to start for Pennsylvania and expecting to remain some months, I made the transfer, thinking to secure to my family what I could of a home in case of an accident happening to myself.

X Q. 358. To whom was the mortgage mentioned by you given and what is its date and amount?

A. There were two mortgages; one was given to Henry Hollenbeck for one thousand dollars, the second one to Sackett L. Wright for five hundred dollars; I cannot give the date of either positively, but think they are dated April 1st, 1875.

X Q. 359. By whom are these mortgages now held?

A. I think the heir or heirs of the Hunter estate hold one; the other has been paid.

X Q. 360. Which of the two has been paid?

A. The Hollenbeck.

Cross-examination of this witness closed.

Proceedings adjourned until 1.15 o'clock p. m.

2268 & 2269 1.15 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Examination of NOAH J. PARSONS resumed.

Redirect examination:

R. D. Q. 361. You have been asked by defendant's counsel to produce the diary which you say contained the memoranda of the conversation you had with William E. Tallman, at Syracuse, in regard to the Tallman windmill well at Preble. Have you found and have you that diary with you?

A. I have.

R. D. Q. 362. Will you please state under what date and month the entry appears?

A. December 12th, 13th, and 14th, 1877.

R. D. Q. 363. As the defendant's counsel has asked you to produce the diary, will you please to read the full entry appearing there, that the notary may take it down?

2270 A. (Witness reads:) "Wednesday, December 12th, 1877."

The foregoing is in print and following is the entry in pencil: "William E. Tallman says of the Preble well: The water gave out; I took out the stone wall and dug it deeper after having tried to get a supply of water by settling a boiler iron in the bottom and digging the earth out inside of the iron. If called upon to testify in the case I could blow either hot or cold on it. R. H. Duell wants me to apply for a patent."

R. D. Q. 364. Was this memorandum which you have just read from your book made by you at the time it bears date and at the time that William E. Tallman stated the facts therein contained to you?

2271 A. It was made at the time it bears date by myself and the same evening that the conversation took place.

R. D. Q. 365. Does that memorandum contain the substance of what he stated to you in that conversation in regard to the well?

A. It does.

R. D. Q. 366. Have the notary and the defendant's counsel, Mr. Palmer, compared the entry in your diary with the record of the court of such entry?

A. They have.

R. D. Q. 367. Did Mr. Tallman at that time make the remark contained in such memorandum: "If called upon to testify in the case I could blow either hot or cold on it?"

A. He did.

R. D. Q. 368. Was your first acquaintance with Mr. William E. Tallman made in Syracuse?

A. It was.

R. D. Q. 369. Was your first acquaintance made by his coming to you and seeking to employ you in his business?

A. The first time I ever met Mr. William E. Tallman was on the 5th day of November, 1877, at the Syracuse and Binghampton depot, in Syracuse; I went to Syracuse that day for the purpose of interviewing Mr. Tallman as to the Preble well; I went to his place of business on South Salina street and then to his residence, over a liquor store, near the Temperance House; failing to find him, I called a second time at his place of business on my way to take the train to return home; about three minutes before the train left Mr. Tallman came to the depot, where I was introduced to him.

2272 R. D. Q. 370. Was anything said about the well at that time?

A. There was not.

R. D. Q. 371. Is Moses T. Tallman, of Preble, now in this notary's office, where this examination is now being conducted?

A. The gentleman answering to that name is here present.

R. D. Q. 372. Has Moses T. Tallman just examined, in the presence of this notary, the sheet-iron curbing, the copper strainer, and the ladder taken from the well?

A. He has.

Redirect-examination of this witness closed.

Recross-examination:

R. X Q. 373. What "case" did Mr. Tallman refer to in the conversation you noted in your diary, as you have testified?

A. I cannot tell.

R. X Q. 374. Was any case mentioned in the conversation?

A. We had been talking about the Carman case, in which Green's patent had been sustained, and of suits which were then pending against well owners in Broome and Tompkins counties, in this State.

R. X Q. 375. To which one of these cases, if either, did Mr. Tallman refer?

A. I do not know that he specified either.

2273 R. X Q. 376. What called out the remark in reference to his being called to testify in the case?

A. I cannot tell; after I opened an office in Syracuse he called upon me several times, and wished to engage me to sell a patent seat-top for a wagon, of which I think he was the patentee; at these interviews we often mentioned the driven well, and in one of these conversations he gave expression to the remarks quoted.

R. X Q. 377. Had you said anything to him about being a witness in any case, in the conversation in which you say he made the remark you have testified to?

A. I do not think I had.

Examination of this witness closed.

(S'g d) N. J. PARSONS.

Subscribed and sworn to before me this 8th day of September, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

Proceedings adjourned until Thursday, September 9th, 1880, at 9 o'clock a. m., at this place.

2274 ABRAM P. SMITH called for complainants.

Witness duly sworn.

Complainants' counsel requests that the witness be sworn also in the cause entitled "William D. Andrews *et al.* against George Leland."

Witness again sworn as last above stated.

Examination by Mr. HURLBUT:

Q. 1. State your name, age, residence, and occupation.

A. My name is Abram P. Smith; my age is 49 years; my residence is Cortland, N. Y., and my occupation, a lawyer.

Q. 2. State whether you are county judge of Cortland county; and, if so, how long you have held the position.

A. I am, and have held it since January 1st, 1868.

Q. 3. How long have you resided in Cortland village?

2275 A. Since November 24th, 1854, and I have always resided in this county.

Q. 4. Did you have knowledge of the raising and organizing of the 76th Regiment of New York Volunteers, raised here and having their camp upon the fair grounds contiguous to the village, in 1861? And state whether or not you enlisted and became a soldier and an officer in that regiment.

A. I did.

Q. 5. What was your position in the regiment?

A. I was quartermaster.

Q. 6. From what time, in reference to the organization of the regiment, were you so commissioned?

A. I was commissioned after we left Cortland; to rank from October 15th, 1861, which was the date of my enlistment.

Q. 7. Did you, after the close of the war, write and publish a history of the organization of that regiment, including that of its service on the field; if so, at what date was that history published and written?

A. It was written in 1866 and published in 1867.

Q. 8. Who was at the head of the movement for the organization of this regiment?

A. Mr., subsequently Colonel, Nelson Winch Green.

Q. 9. What was the date, as near as you can give it, of the commencement of the efforts to raise the regiment?

2276 A. Soon after the battle of Bull Run, which was July 21st, 1861; it did not take any tangible form until some time in

August; the call to the people was dated September 2d, 1862; I think we had drill squads fully a month before the call.

Q. 10. Connected with the efforts to raise the regiment were those drill squads formed in this village of citizens for military drill? If so, state who was at the head of that movement, and whether you were connected with them, and at what place or places the drilling was practiced.

A. Those drill squads were formed with reference to the raising of a regiment; Mr. N. W. Green was the recognized leader; I was connected with them, and the drills took place chiefly at what was then called Squires' Hall, in this village.

Q. 11. State the object of the drilling practiced in these drill squads with reference to the regiment mentioned.

A. The object was to prepare gentlemen to become officers of the regiment.

Q. 12. Under whose supervision was the drilling conducted?

A. N. W. Greene.

Q. 13. Do you know Heman F. Robinson, James C. Carmichael, and Byron Mudge, formerly of this place?

A. I knew them well then; I know Carmichael tolerably well now.

Q. 14. Please state whether they were members and practiced in these drill squads with the view of becoming officers in this regiment.

2277 A. They did.

Q. 15. When did the regiment go into camp upon the fair ground here?

A. September 26, 1861.

Q. 16. What number of men composed the regiment at that time, as near as you can state?

A. I have no means of being definite. I should say somewhere from two to four hundred.

Q. 17. Did it, on going into camp, take the form of a regular military encampment under the order of the colonel? State generally how that was.

A. It did take the form of a regular military encampment under the order of Colonel N. W. Green; officers were detailed for the different kinds of duty; I was detailed as quartermaster, Robinson as adjutant, and others for other offices; passes were issued, clothing distributed, but no arms; Green was the commandant of the post.

Q. 18. State whether that state of things with reference to the camp and its organization continued until December, 1861, when the regiment left Cortland.

A. It did.

Proceedings adjourned until 1.30 o'clock p. m.

2278 1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Examination of ABRAM P. SMITH resumed:

Q. 19. By what authority did that organization go into camp September 26, 1861? State generally in regard to it.

A. By authority of Hon. Edwin D. Morgan, Governor of New York.

Q. 20. State whether you and the other officers in the regiment acted as such in the camp and elsewhere previous to obtaining commissions.

A. They did.

Q. 21. What official positions in the regiment, if any, were held by Carmichael, Mudge, and Robinson? State separately as to each.

A. My recollection is that Carmichael acted as lieutenant colonel, Robinson as adjutant, and Mudge was, I think, lieutenant. It might be that Mudge was to be major.

Q. 22. State, if you know, whether they each became acting officers in the position, as stated, in the intention and expectation of being commissioned as such in the regiment.

A. I so understood it.

Q. 23. Now, state whether Carmichael, Robinson, and Mudge and each of them acted, to your knowledge, as officers, as stated, under Colonel Green in carrying out his orders, in camp and out of it, relating to the affairs of the regiment; state fully as to it.

2279 A. They did act by his direction. I saw Robinson acting as adjutant by Green's direction, Green giving him orders from time to time. As to the others, I cannot call to mind any particular time that I saw Green giving them orders. They were acting generally in their respective capacities under Green, who was in command of the camp.

Q. 24. How long had you known Colonel Green? And state how well and intimately you were then or since have been acquainted with him.

A. I think I knew him three or four years prior to that time. On reflection, I had not known him but two years. He had been a partner of mine from the fore part of April, 1861, up to the time of the enlistment. I was intimately acquainted with him at the time of raising these troops, and so continued until he left Cortland, after his trial in 1866. I have only met him two or three times since he left Cortland.

Q. 25. At the time you say he was a partner of yours, state whether or not he was an admitted attorney.

A. I think he was not.

Q. 26. Do you know what his intentions were at the time with reference to making his profession that of a lawyer?

A. My impression is that he was studying with the intention of becoming admitted.

Q. 27. Do you know anything as to the origin of the driven well, so called, as made known here in the fall of 1861?

A. I think so. I have a distinct recollection of the first time I ever heard of it.

Q. 28. Was that in the fall of 1861, and from whom did you hear of it?

2280 A. It was in August or September of 1861, and I first heard of it from Nelson Winch Green, at Squires' Hall, in Cortland.

Q. 29. What knowledge was communicated to you then? In answering please state whether he disclosed or stated to you his process of constructing such a well and fully what took place and the occasion.

A. He did disclose the process of constructing the well. One night, after we had been attending the drill at Squires' Hall, in Cortland, the subject arose and was discussed as to the surrender of Mulligan at, I think, Lexington, Missouri, which had then recently taken place, and the fact that he had been surrounded and cut off from water, and also the fact that the wells and springs at the South had been poisoned by the rebels. Green spoke and said in substance: "Boys, there is no need of our being troubled in that way; we can have pure water wherever we are; all we have to do is to drive down a bar, pull it out, and insert a pipe; put a pump on it, and pump water wherever we are;" and he took his pencil out when he spoke of driving down the bar and made a motion in this way (witness makes a motion with his pencil in his hand). A good deal of discussion then took place as to the feasibility or possibility of getting water in that way, and I think we all took sides against Green; I know I did; he maintaining that it was practicable and could be done and the rest of us maintaining the opposite. Either at that time or at another time, when we were at drill, Green turned to me and said in substance: "Quartermaster, I want you to furnish transportation for tools to put these wells down with." Mudge's name was used in connection with it, but what the language was I cannot tell.

Q. 30. Who besides yourself were present when this statement of Green's was made at Squires' Hall?

A. I think that J. A. Todd was there; I think Mr. Mudge was there, and fifteen or twenty men.

2281 Q. 31. You say that you all took sides against Green; was it because you did not think it practicable?

A. That was my reason, and that was the way the rest of them talked.

Q. 32. State whether Mudge participated in the discussion, if you recollect.

A. I cannot swear positively, but I think he did.

Q. 33. State whether or not he expressed any view as to its practicability; and, if so, state what he said, as far as you remember.

A. I cannot at this lapse of time state any specific thing that any individual said, except Green. I can only say that all the persons present took grounds against Green as to its practicability.

Q. 34. State whether the method then stated by Col. Green for obtaining water was new to yourself or otherwise, and whether that method had been in use here in the community or otherwise, so far as you had ever heard.

A. It was entirely new to me and had never, to my knowledge or belief, been in use in this or any other community.

Q. 35. State how Colonel Green expressed himself as to its practicability for getting water.

A. He expressed himself very emphatically that it was practicable, and I thought he believed it.

2282 Q. 36. What do you know about the driven well being put down on the premises of Green and one being put down at the camp of the regiment?

A. I saw both of the pumps in operation; I either saw them putting the one by Green's house down or saw it shortly after it was down; the men were still standing around there, and I saw something like a saw-horse, only taller, that was used in some way in putting it down. I do not know anything about their putting down the one on the fair ground; I only saw it in operation.

Q. 37. Did the putting down of these wells, the one at Green's house and the one at the fair ground, lead to conversation and discussion in camp and among the citizens of this village and vicinity?

A. It did.

Q. 38. To what extent?

A. To quite an extent.

Q. 39. In these discussions or conversations which followed the putting down of these wells who was considered to be the originator or inventor of that process for obtaining water and to whom was the invention ascribed, so far as you heard, at that period of time?

A. So far as I heard, Nelson Winch Green.

Q. 40. When, in reference to the conversation at Squires' Hall referred to, was it that you saw them making the well at Green's house and the well at the fair ground, as testified to?

A. They were both of them after the conversation at Squires' Hall; I could not state the exact length of time after; perhaps a month, more or less.

Q. 41. Did you have a conversation with Mudge after the putting down of the well at Green's house with reference to the driven well or that well?

A. I did.

2283 Q. 42. State, as near as you can, what that conversation was.

A. I think it was the same day that the well was put down at Green's house. I came down from the camp past Green's and Mudge joined me and we walked down together; the subject of that well came up that they had just been putting down at Green's. Mudge said, "Smith, I tell you I think that thing is going to work." I expressed my disbelief in it. I told him he might as well attempt to get blood out of a stump as to get water in that way. I remember that was one expression I used. I gave him the grounds for my disbelief; that I did not think the water would flow fast enough through the ground to fill the pipe; he said that they pumped out sand and dirt and it would form a reservoir as big as a bushel basket and then they would have a well there. I told him that it might work when they could stick a pipe right down beside a creek, but I did not believe it would work out on dry land, and we discussed it for some distance; the conversation began on the bridge at Dibble's and went on from there down. I cannot tell all that was said by both of us, but we had quite a discussion about it.

Q. 43. Either at the drill-room or in subsequent conversations now given did he (Mudge) make any claim of being the originator or inventor of that process of obtaining water?

A. He did not.

Q. 44. Do you remember of the shooting of Andrew J. McNett by Colonel Green for an alleged mutiny occurring in the camp on the fair ground in the fall of 1861?

A. I do. I was not present at the shooting, but was there soon after; it occurred December 6th, 1861, I think.

2284 Q. 45. You have spoken about Colonel Green's requesting you as quartermaster to furnish transportation for the tools to put the wells down with; when was that, in reference to the shooting of McNett, and when did that shooting occur?

A. The suggestion was before the shooting, and the shooting occurred December 6th, 1861, I think.

Q. 46. Was you in or about the camp at about the time of the shooting of McNett?

A. I was there both before and soon after it on that day.

Q. 47. Now, state, if you will, what the effect in camp was and out of camp among the people of the village and the county that was produced by this McNett affair in giving rise to the parties for and against the Colonel in reference to it, stating the extent of the division to which it led and the intensity of the feeling which prevailed for and against.

A. It created an intense excitement in the camp and in the village and to quite an extent in other parts of the county; so much so that there were threats of an attack upon the camp by certain citizens, and, I think, of lynching Green; word was sent to Truxton for two cannon, and I think they were brought down, but cannot be positive as to that; the people divided into two parties; it even went into the churches; Green and his minister had trouble about it, and the political parties to a great extent took it up.

Q. 48. Describe the character and intensity of the feeling which this affair aroused against Colonel Green, and down to about what time did it prevail.

2285 A. The feeling was intense both for and against him and extended at least down to the date of his trial in April, 1866; so much so that the jury stood six to six, as I have understood.

Proceedings adjourned until 9 o'clock a. m., Tuesday, August 10th, 1880, at this place.

TUESDAY, *August* 10*th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

Examination of ABRAM P. SMITH resumed:

Q. 49. What trial do you refer to in your last answer?

A. I mean the trial of the indictment against Nelson W. Green for shooting McNett, which was an indictment for assault with intent to kill.

Q. 50. When was that indictment procured?

A. In January, 1862; I think January 6th.

Q. 51. Was Colonel Green involved in several civil lawsuits shortly after the shooting of McNett, arising out of matters pertaining to the regiment, as you understood? Please state what there was about it.

2286 A. He was. I cannot give the dates of the suits, but he had one or two at Solon, I think one at McGrawville, one or more at Homer, and, I think, others, but I cannot tell what. Then he had a civil suit with the preacher in the Episcopal church here. That, I think, was a slander suit.

Q. 52. Those suits were between 1861 and 1866, were they not?

A. I think so.

Q. 53. Were any criminal proceedings had against Green at about the time of the shooting of McNett and in relation thereto? If so, state what.

A. Yes, sir; he was arrested upon a criminal warrant and gave bail for his appearance at court to answer to an indictment.

Q. 54. When did the regiment leave Cortland on its way to the field?

A. The 17th or 18th of December, 1861. On reflection, it was the 18th.

Q. 55. State under whose command it was when it left Cortland.

A. Under command of General, subsequently Senator, James Wood, of Livingston county.

Q. 56. State when and how he came to take command in the place of Colonel Green.

A. Colonel Green was suspended from his command right away after the shooting, and Wood was sent here to take command of us in his place.

2287 Q. 57. Did you yourself accompany and also Colonel Green continue with it until it reached Washington and was quartered at Fort Totten, Fort Slemmer, Fort Slocum, Fort Massachusetts, and Fort De Russey?

A. Yes, sir.

Q. 58. State to what place did you first go on going into quarters from Cortland; and state also the further route and stops made by the regiment on its way to the occupation of these forts, giving the dates and the length of the several stops made, as near as you are able.

A. We went first to Albany, arriving there December 18th, 1861, at night. We left Albany on the 17th day of January, 1862, and went to New York, I think, arriving there the next day. We were first stationed in the park where the post office now stands. We remained there about two days; then we were taken to Riker's Island and staid there until about the 28th or 29th of January, when we left for Washington, arriving there January 31st. We went into camp at the Soldiers' Retreat and staid there until February 4th; then we went into camp on Meridian Hill, on grounds of Commodore Porter. We staid there about twenty days, when we moved back to the forts above mentioned, where the regiment remained until May 22d, 1862, when it was ordered to Fredericksburg, Virginia. I resigned May 12th, 1862, and left the regiment May 21st.

Q. 59. Did Mudge and Carmichael go with the regiment? State what there was about it.

A. They went as far as Albany. The fore part of January there was a consolidation of the Cherry Valley regiment, so called, with the Cortland or 76th regiment, at which consolidation the colonel of the Cherry Valley regiment was put in as lieutenant colonel of the consolidated regiment. McNett and his men were taken out of our regiment and put into another. Captain White and his company were taken out and put into the artillery. Three Otsego 2288 companies, known as the Cherry Valley regiment, were put into our regiment, and Mudge and Carmichael were consolidated out of the regiment. They did not go as privates.

Q. 60. Was there a court of inquiry that took action upon the difficulty arising out of the shooting of McNett by Colonel Green, and other proceediugs had while he was with the regiment? If so, state generally in regard to it.

A. After we arrived at Albany, Colonel Green requested a court of inquiry, and one was organized; William H. Anthon, judge advocate general, appeared upon one side and conducted the case, and Clark B. Cochran and myself appeared for Colonel Green; we tried it about two or three days, and swore a number of witnesses; the result of that was that Colonel Green was put in command and sent on with the regiment. He remained in command until we arrived in Washington, and had been there awhile, when he was cited before a commission, and an investigation had into his conduct as commandant of the regiment; the officers of the regiment had most of them turned against Green at that time, and the men had most of them turned for him, and there was intense excitement. Green was finally put under arrest in his tent, and remained there two weeks, more or less, and then, by the earnest solicitation of leading men, he was allowed to go to Washington, and was then sent home; he was discharged June 2d.

Q. 61. State how Colonel Green's time was occupied during the raising of the regiment, from the time its raising and organization was commenced, down to the time of the McNett affair, stating to what extent in point of time and attention he gave himself up to the work.

A. His time was wholly devoted to the raising of the regiment; making arrangements for public meetings to raise troops; procuring,

to be printed, circulars, and sending them to leading men in the county; procuring authority from the State to establish a
2289 camp; superintending the building of barracks and putting up tents; making arrangements for feeding the men; detailing and superintending the officers in different departments; inspecting, drilling, and disciplining the men, and taking the general oversight of the affairs of the regiment, which took up his entire time, night and day, during business hours.

Q. 62. How much did you see of Colonel Green after his return from the army, about June, 1862, down to the time of the trial, in 1866?

A. I think I saw him once a day, on an average; some days I did not see him, and on others I saw him several times—when he was in town I mean; he made my office a sort of headquarters.

Q. 63. State now what the effect was on the mind and conduct of Colonel Green, as far as you observed, that was produced by the McNett affair, his trial thereon, and the other trials and difficulties to which, as you say, it led, and under the public excitement which you say prevailed, stating in your answer the effect, so far as you observed in his manner, conversation, and conduct.

A. It made him very excitable, and he was talking almost continuously about his troubles, his indictment and his claim that he was still colonel of that regiment, notwithstanding the order of the War Department removing him; he made frequent applications to the War Department to be restored; he was engaged a good deal of his time in writing letters to prominent men to solicit their influence, and spent much time in briefing up the military points in his case, and in preparing to put his cases over from term to term, until he could get his witnesses to show this mutiny, which he claimed, and generally in preparing his cases for trial; his consultations with reference to his cases were very frequent, and his mind seemed to be wholly occupied with his troubles; he was wrought up to a high pitch. My advice in that criminal case was that he set up the plea of insanity; I considered it his best plea.

2290 Q. 64. You say Colonel Green was in your office frequently during those years; did you act as his counsel, and did you advise with him in regard to his difficulties?

A. I did.

Q. 65. What portion of the time, as far as you are able to state, was Colonel Green out of the village of Cortland during those years?

A. I do not think I am able to state or form any opinion.

Q. 66. From the time of Colonel Green's return to Cortland village, in 1862, down to his trial, in 1866, state whether he was inclined or could be brought to converse upon subjects other than those connected with the McNett affair and his military and other troubles which followed from it.

A. I would not want to say that he could not be brought to converse upon any other subject, but he was very apt to run into those subjects whenever talking upon any subject.

Q. 67. Were those the principal subjects of his conversation during those years, so far as you know?

A. I think so.

Q. 68. From the time of his return to Cortland, in 1862, and down to his trial, in 1866, did he give attention to or do any business whatever, to your knowledge, other than to attend to his efforts to procure his restoration to the command of his regiment and to prepare for his defense to the indictment and his defenses in his suits and troubles mentioned?

2291 A. I do not know of any other business which he did at that time.

Q. 69. Shortly after the trial on the indictment, in 1865, was Colonel Green's barn burned?

A. It was.

Q. 70. Was it understood here at the time to have been so burned by some of his personal enemies in the McNett affair?

A. I heard such charges made.

Q. 71. State whether after his return to the village, in 1862, Colonel Green gave any attention to the business of copartnership with you to which you have referred.

A. He did not.

Q. 72. What became of your partnership relations?

A. Nothing. Green left the State thirteen or fourteen years ago, and has never since called me to an account. I think, however, we looked over some little business which we had prior to his leaving with the regiment, and settled it.

Q. 73. During the period since the occurrence of the McNett affair, and down to the time of his trial, in 1866, state whether charges of insanity were made against him, and how frequently.

A. That charge was frequently made, but I cannot say by whom.

2292 Q. 74. Did you have business cards of the firm mentioned between you and Colonel Green in the spring of 1861?

A. We did.

Q. 75. Will you please search for one of those cards, and if you find it produce it that it may be put in evidence by the complainants in this case?

A. I have looked for it and I will further, and if I find it will produce it.

Q. 76. By what name was the camp known on the Cortland fair ground referred to?

A. Camp Campbell.

Proceedings adjourned until 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.
Present: As before.

Examination of ABRAM P. SMITH resumed:

Q. 77. Have you made search since the adjournment for your copartnership card, and have you been able to find it?

A. I have made further search, and am unable to find it.

Direct examination of this witness closed.

Cross-examination by Mr. PALMER:

X Q. 78. When did this business copartnership with Colonel Green begin and when end?

A. It began about April 1st, 1861, and we have never done anything at it since we went to the war.

2293 X Q. 79. Has there ever been any settlement of the partnership business between you and Green?

A. I think there has, but it was so small that it did not make any impression on my mind.

X Q. 80. What was the nature of the business done by the copartnership mentioned by you?

A. It was the collection business; there was no written partnership; Green had an idea that he could control a large amount of business in that line from New York, and I told him that I would take hold with him and we would divide the profits; that was about all the partnership there was.

X Q. 81. Was it the proposed business of this firm to make collections for firms engaged in business at New York city of their debtors doing business in Cortland and vicinity?

A. Yes, sir.

X Q. 82. And only that?

A. That is my recollection of it now and that I am entirely positive about.

X Q. 83. What was the firm name?

A. Smith & Green.

X Q. 84. About when did this settlement take place?

A. I should say in 1861 or 1862.

X Q. 85. Were there any assets of this firm at the time of settlement? If so, state about how much its value was.

A. I think there was; it consisted of money collected by me more than was collected by him, and was about twenty-nine dollars, more or less, which was to be divided between us.

X Q. 86. Did the firm have a schedule of fees or prices charged for services rendered in making collections? If so, state what it was.

A. I think not.

X Q. 87. How were the compensations for services made in collecting fixed?

A. Just as usual between attorney and client by arriving at the value of the services rendered, unless in certain cases where a certain per cent. was offered.

2294 X Q. 88. Then the compensation received by this firm for the business done by them varied with the circumstances of each particular case, did it not?

A. I think it did.

X Q. 89. About how much was the aggregate value of the earnings of this firm for the period in which it continued business?

A. I should say not to exceed from a hundred to a hundred and fifty dollars. I have no means of knowing.

X Q. 90. Aside from the business done by Nelson W. Green as colonel of the 76th Regiment N. Y. S. Vols., and the defense and prosecution of his lawsuit, did he do any other business during your acquaintance with him, except the business of this firm, to your own knowledge?

A. I think he carried on a little place of seven or eight acres; I do — know of any other business, and I never saw him do any work on that.

X Q. 91. Did he not do as much business after his dismissal from the army in 1862 as he did previous to his enlistment, aside from the business of the partnership mentioned, so far as you know?

A. I know of his doing much more business afterwards than he did before he went into the army; he did more business in trying to get reinstated than he ever did about our business.

X Q. 92. Do you know the fact that he frequently was present at the public exercise at the academy in this village and at other places of entertainment during the period from June, 1862, to March, 1866?

A. I do not recollect whether I saw him there; very likely I did.

X Q. 93. You have sworn on your direct examination that Green was charged with insanity. Give the names of persons, dates, and places where you heard such charges made and the names of persons present on such occasions, if any.

A. I cannot give all the names or places. I think I can give two or three names.

X Q. 94. Give the names of such as you can recollect.

A. I think I heard James C. Pomeroy say that Green was a
damned lunatic and ought to be arrested and confined. I
2295 think I heard the Rev. Mr. Meacham say, in substance, that
he was not of sound mind, and I heard others say similar
things, but cannot give their names.

X Q. 95. Can you swear positively to the names of any other persons who charged Green with being a lunatic in any way?

A. I cannot.

X Q. 96. About when were these remarks made by Pomeroy and Meacham?

A. Soon after the shooting of McNett; between the 6th and 18th of December, 1861, I think.

X Q. 97. James C. Pomeroy and Dr. Meacham are now dead, are they not?

A. James C. Pomeroy is dead, and I have heard that Dr. Meacham is also dead.

X Q. 98. Dr. Meacham was at that time pastor of Grace church, the Episcopal Church of which Colonel Green was at one time a member, was he not?

A. Dr. Meacham was at that time pastor or rector of Grace church, the Episcopal Church of Cortland; as to Green's membership, I have no knowledge. He attended there, as I understood.

X Q. 99. James C. Pomeroy had previously been sheriff of this county, and was he subsequently a member of the enrolling board and deputy United States marshal?

A. I think so.

X Q. 100. Green himself always indignantly denied the charge of insanity made against him, did he not?

A. He did, so far as I know.

X Q. 101. What was Carmichael's (Colonel J. C.'s) relations to the 76th regiment while it lay at Albany?

A. I cannot tell a thing he did while we were at Albany; we were in the barracks there, and there was not much to be done. It was in the winter time.

X Q. 102. Did he not have charge of procuring supplies for the regiment a part or all of the time it was at Albany?

A. Not to my knowledge. I was absent about a week. He might have done it while I was gone. That was my business as quartermaster.

X Q. 103. Will you swear positively that he did not attend to providing for the wants of the regiment at any time while you were in Albany?

2296 A. I will not. He is a man who usually makes himself numerous and handy.

X Q. 104. Did he not go with the regiment to Albany as acting lieutenant colonel, and was not he in command of the regiment as such during the suspension of Colonel Green?

A. I think he went to Albany with the regiment as lieutenant colonel. I do not think he was in command after the suspension of Colonel Green.

X Q. 105. Did Carmichael afterwards hold a commission as captain in the 76th regiment?

A. Not to my knowledge, information, or belief.

X Q. 106. By whom and at what time and place did you hear it charged that Green's barn had been burned by his personal enemies?

A. It was in Cortland village, soon after the burning, but I cannot tell by whom.

X Q. 107. You have referred in your direct evidence to lawsuits commenced against Colonel Green. Were those suits in a justice's court?

A. One was in the supreme court and the remainder were in justices' courts, and I think one or two were appealed to the county court.

X Q. 108. The suit in the supreme court was brought by Colonel Green against Dr. Meachum for slander in stating he thought Colonel Green was not sane, or that in substance, was it not?

A. I cannot tell what the slander was. It was an action for slander in connection with the shooting of McNett.

X Q. 109. That action was never tried and was withdrawn, was it not?

A. It never was tried, to my knowledge, and I do not know what became of it.

X Q. 110. Who were the attorneys for the respective parties in that action?

A. I think Waters & Waters were for Green and I do not remember who was for the priest.

X Q. 111. The firm of Waters & Waters was composed of M. M. & A. D. Waters, was it not, at that time?

2297 A. It was, I think, but I am not sure that A. D. Waters appeared for Green. The firm may have been Waters & Wright.

X Q. 112. There was nothing about this cause in the supreme court that necessarily occupied much of Green's time, was there, so far as you have knowledge?

A. I know of nothing unusual different from an ordinary slander suit.

X Q. 113. Was it ever on the calendar for trial, so far as you know?

A. Not to my recollection.

X Q. 114. How many suits do you say there were against Green in justice's court?

A. I cannot say; but I remember three and, I think, four.

X Q. 115. Were you his counsel in those suits?

A. In some of them; not all.

X Q. 116. Were those actions for goods, wares, and merchandise sold and delivered?

A. They were not, so far as I can recollect. Some of them may have been.

X Q. 117. What were they for?

A. I remember the one at Solon was for the use of old "Buckskin," a horse used in connection with the regiment. I think that two of the actions—one at McGrawville and one at Solon—was on this bill. One was at Homer; I think it was for something connected with the regiment. I have it in my mind that there was a suit in Virgil of the same character. One or two of these suits were appealed to the county court.

X Q. 118. What was the dates at which these suits were pending?

A. The suit at Homer I appeared in for Green June 10th, 1862, and again June 28th, and adjourned to August 8th, when another attorney was substituted in my place.

X Q. 119. Were the adjournments in the suit at Homer procured by the defendant Green and on his motion?

A. I think so.

X Q. 120. About what amount was involved in that case?

A. I should think that bill was about seventy dollars.

2298 X Q. 121. Was it tried or settled?

A. My recollection is that it was tried.

X Q. 122. Did the trial occupy more than one day?

A. I have no recollection.

X Q. 123. How far is Homer from Cortland?

A. Three miles.

X Q. 124. What was the extent of the jurisdiction of a justice of the peace in civil actions at that time?

A. I think it was a hundred dollars.

X Q. 125. Were these other actions, which you have mentioned in justice's court, pending at about the same time that this one was?

A. My best recollection is that they were; about 1863; I may be mistaken.

X Q. 126. They were all tried and disposed of in the year 1863 or before the close of that year, were they not?

A. I think they were, except the appeal.

X Q. 127. Was an appeal brought in more than one of these actions?

A. Not that I recollect.

X Q. 128. Which case was the appeal brought in?

A. I think it was the case of Wheeler & Terry against Green; I think it was the Solon suit.

X Q. 129. Was the appeal one for a new trial or upon questions of law only?

A. I think it was upon a question of law.

X Q. 130. Could not either of these cases have been tried in a single day before the justice?

A. I know that the one at Homer took more than one day; it took three days and the jury disagreed; I went once to Solon and once to McGrawville on those suits, but I have no memorandum in regard to them.

X Q. 131. (Question 130 repeated.)

A. I cannot tell; the one at Homer took more than one day.

X Q. 132. The appeal did not necessarily occupy any of Mr. Green's attention, did it?

2299 A. Not as I know of.

X Q. 133. An appeal upon the law, such as this, does not necessarily occupy the attention of the party, does it?

A. Not necessarily an ordinary party, but it depends much upon the party.

X Q. 134. This appeal did not occupy Green's attention, to your knowledge, did it?

A. I have no knowledge on the subject; I was not the attorney.

X Q. 135. How far is Solon from Cortland?

A. Eight miles.

X Q. 136. How far is Virgil from Cortland?

A. Six miles, it is called.

X Q. 137. These towns adjoin the town of Cortlandville, in which Green then resided, do they not?

A. They do.

X Q. 138. A justice of the peace had no jurisdiction of the person of the defendant where the plaintiff and defendant resided in the same town where the justice resided, except in that or an adjoining town at that time, had he?

A. I think so.

X Q. 139. The plaintiffs in these several actions and also Green resided in the town of Cortlandville, did they not?

A. They did.

Q. 140. How valuable a barn was this of Green's that was burned?

A. I don't know.

Q. 141. Do you recollect the fact that a subscription was circulatd and money collected and presented to Green to rebuild his barn soon after it was burned?

A. I think there was; I believe I gave something.

Q. 142. Do you remember how much was thus collected and paid to Green or about how much?

A. I do not know anything about it.

Q. 143. You do know that he never rebuilt the barn?

A. Yes, sir.

Q. 144. You spoke in your direct examination about drill 2300 squads at Squires' Hall in 1861; did any person other than Colonel Green act as drill-master in the instruction of those squads in military manœuvres and tactics?

A. They did after they had themselves become instructed.

X Q. 145. Were you engaged in any of these squad drills?

A. I was.

X Q. 146. Were you in the ranks or engaged in giving commands in these squad drills?

A. I was in the ranks.

X Q. 147. Who, besides Green, acted the part of drill-master and instructor?

A. I think J. A. Todd, J. C. Carmichael, A. Sager, and others whom I do not remember.

X Q. 148. Have you received any money from the complainants in this action, or William D. Andrews, or those associated with him in the prosecution of parties alleged to have infringed an alleged patent granted to N. W. Green for obtaining water by a process commonly denominated the driven well, or have you been retained on the part of such complainants or persons?

A. I have not been retained by any person in connection with the driven well, nor have I received one cent, directly or indirectly, for my services as attorney or witness or otherwise, nor have I been promised anything except yesterday, when complainant's counsel promised to see that my witness fees were paid.

X Q. 149. Were you sworn as a witness in the interference case pending in the Patent Office between Green, Mudge, and Suggett; and, if so, at whose instance was it?

A. I was, at the instance of N. W. Green.

X Q. 150. At what time were the commissions of the officers of the 76th regiment actually delivered?

A. I cannot tell you whether it was while we were at Albany, New York, or Washington. I think it was while we were at Albany.

X Q. 151. Up to the time the commissions were delivered to the officers of the regiment they were *de facto* officers merely, exercising authority and giving commands to the men composing the regiment by their consent rather than by any right or lawful authority, were they not?

2301 A. As I understand it, the line officers were elected by their respective companions before they left Cortland, and the other officers were detailed by the Colonel; but whether he had any authority to make such detail I cannot answer, and whether the officers became officers *de jure* by such election I cannot answer. The only paper authority they had were their commissions.

X Q. 152. Previous to the time the regiment left Cortland were not the officers and members thereof acting voluntarily and without any express authority from the State or Federal Government?

A. They were all volunteers, both the men and officers. I think they had no authority from the United States Government. I think they were all mustered into the service before they left Cortland, except a few of the acting officers, who left themselves in shape to slip their heads out providing they did not get office. I cannot answer whether any of the officers, except Colonel Green, were legally authorized by the State to perform the duties of their respective offices before receiving their commissions.

By Mr. SUGGETT:

X Q. 153. Will you swear positively that you were mustered into the service of the State of New York or of the United States as quartermaster of that regiment before it left Cortland?

A. I was not mustered in as quartermaster, but I was mustered into the service at Cortland by Major Sitgreaves, I think. They do not muster in as quartermaster.

X Q. 154. Will you now take your history of the regiment and give the exact date when you were mustered into the service and the rank that you were mustered in under?

A. There is no mention made anywhere in my history of the regiment of my being mustered in or out.

X Q. 155. What was the rank that you were mustered in under?

A. Lieutenant.

X Q. 156. Were you again mustered into the service at Albany?

2302 A. I think not.

X Q. 157. Will you swear you were not?

A. I will not. I drew pay from October 15th, the time I was mustered in at Cortland. I paid no further attention to it.

X Q. 158. Were there two times when the officers were mustered in at Cortland?

A. Some of the men were mustered in October 4th. I do not know whether any of the officers were mustered in that day or not. I should not have known the date of my being mustered in except for the date of my rank.

X Q. 159. Great preparations were made by Col. Green for his trial in the oyer and terminer held in this village in April, 1866, were there not?

A. Yes; pretty extensive.

X Q. 160. And previous to that time Col. Green was very busily engrossed in making preparations for that trial, was he not?

A. That is my recollection.

X Q. 161. For how long previous to the sitting of that court in April, 1866, was Col. Green most busily engrossed? Mention the time in months, as near as you can.

A. I could not answer that; I do not know. He was making the same preparation a man always makes in an important case. My recollection is that the nearer the court approached the more busy he was. I know that from the time of our return from the army up to the time of the trial he would occasionally converse with me with reference to the case, counseling with me as to the line of defense and sometimes as to how the case could be put over the term.

Proceedings adjourned until Wednesday, August 11th, 1880, at 9 o'clock a. m., at this place.

2303 WEDNESDAY, *Aug.* 11*th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of ABRAM P. SMITH resumed:

By Mr. PALMER:

X Q. 162. Were you one of the counsel for N. W. Green engaged in his defense to the indictment for shooting McNett?

A. I was.

X Q. 163. Did you continue to be his counsel during his trial?

A. Yes; although I believe I took no open part in the trial.

X Q. 164. Did you aid in preparing the defense?

A. Yes.

X Q. 165. What counsel defended him at the trial?

A. The Hon. Milo Goodrich, Mr. Knox, of New York, and M. M. Waters, of this place. I think Hon. R. H. Duell and F. D. Wright, Esq., advised with reference to the defense.

X Q 166. You have stated on your direct examination that Green was arrested upon a warrant charging him with the shooting of McNett. By whom was that warrant issued?

A. I think P. Bacon Davis, a justice of the peace of the town of Cortlandville. I may be mistaken.

X Q. 167. What proceedings were had before the justice after Col. Green's arrest upon the warrant?

A. Bail was given before the county judge, as I remember, signed by a large number of the members of the regiment.

X Q. 168. Was any examination of the prisoner had at that time, or was Col. Green incarcerated in jail upon that warrant or a commitment by the justice, or was he immediately released on bail?

A. My recollection is that he was immediately released on bail, without examination or imprisonment. I cannot swear positively that he was arrested.

2304 X Q. 169. Did he have any difficulty in obtaining bail at any time after his arrest and before his trial, to your knowledge?

A. I think not.

X Q. 170. Was his trial upon said indictment postponed upon his application or the application of the district attorney who represented the prosecution?

A. I cannot say that it was put over all the time by Green; it is possible that it was put over part of the time by the district attorney.

X Q. 171. The indictment was in the Cortland county oyer and terminer, was it not?

A. It was found in the oyer and terminer and tried in the oyer and terminer.

X Q. 172. Is it your recollection that it was continued in the oyer and terminer?

A. Yes, sir.

X Q. 173. Who was district attorney of the county of Cortland when this indictment was found?

A. George B. Jones, I believe.

X Q. 174. Who succeeded George B. Jones in that office?

A. Alvah D. Waters.

X Q. 175. Was he a member of the law firm of Waters & Waters, of this place?

A. He was.

X Q. 176. Was Alvah D. Waters district attorney at the time of the trial of the indictment of Green?

A. He was.

X Q. 177. Were George B. Jones and Alvah D. Waters personal friends of Colonel Green?

A. I know nothing to the contrary; they were all loyal men.

X Q. 178. You say you know nothing to the contrary; have you not knowledge indicating that they were personal friends of Colonel Green?

A. I do not think I have.

X Q. 179. Did Colonel Green take the lead in the preparation of his defence to the indictment against him or did he leave that mainly to his counsel?

A. I cannot say that he took the lead, but he took a prominent part in it, so far as I know.

2305 X Q. 180. At whose suggestion were Generals Robinson, Doubleday, McDougal, and Davies sworn and examined on the part of the defense on the trial of the indictment against Colonel Green?

A. I do not recollect.

X Q. 181. Have you no recollection upon the subject?

A. I have not.

X Q. 182. What facts were sought to be established for the defense by the testimony of the generals before mentioned?

A. It was sought to show by them that, according to military law and custom, the shooting of McNett by Green under the fact proved on the trial was justifiable, and I think they all swore to it.

X Q. 183. Was not that defense suggested by Colonel Green, and did he not repudiate the defense of insanity proposed by some of his counsel?

A. I think that Green did not originally suggest that line of defense; he did repudiate the charge of insanity; I think I first suggested that mutiny in camp would be a good defense.

X Q. 184. Was it Colonel Green's suggestion as a defense that Captain A. J. McNett was a rebel, and that he (Green) had a right to shoot a rebel at sight?

A. That was the first claim he made to me on telling me about the shooting.

X Q. 185. Captain McNett entered the United States service as a volunteer and rose by promotion to the position of colonel or lieutenant colonel in the regular army and lost an arm in the service, did he not?

A. I never knew of his being in the regular army; I understood that he was promoted to lieutenant colonel of volunteers and lost an arm in the service; at the trial of Colonel Green, McNett appeared with one armless sleeve.

X Q. 186. Did he remain in the service until the close of the war?

A. That is my understanding; I have no knowledge of the subject.

X Q. 187. Were preparations made for trial by Colonel Green at any term of the court before the term of the court at which the trial actually took place?

2306 A. I do not remember how that was. I have no recollection or memorandum upon the subject.

X Q. 188. Do you remember any occasion or term of the court when Colonel Green prepared for trial, except the term when the trial took place?

A. I do not.

X Q. 189. How long was he actively engaged in the preparation of his defense immediately preceding the trial?

A. I cannot tell.

X Q. 190. About how long? State your best recollection.

A. I have no knowledge on the subject. I was not the attorney having charge of the case, but simply counsel, and do not know anything about it.

X Q. 191. Was not Colonel Green's time more fully occupied for a period of about two months immediately preceding his trial than during any other similar period of time between the date of his return from the army and the time of his trial?

A. I think I saw him more frequently with reference to the case for the two months immediately before his trial than at any other time.

X Q. 192. Is it your recollection that he was then or at about that time very busy and very much occupied with the preparations for his defense to the said indictment?

A. Yes, sir.

X Q. 193. Was the 76th regiment of New York State Volunteers ever a part of the organized militia of the State of New York, or were they ever mustered into the service of the State of New York as such?

A. I think not.

X Q. 194. Was Colonel Green mustered into the service before or after you were?

A. I do not know.

X Q. 195. Do you recollect the date of the muster of any other officer of the regiment except your own?

A. I do not.

X Q. 196. You were the author of a history of the 76th regiment, N. Y. S. Vols., written in 1866 and published in 1667, were you not?

2307 A. I was.

X Q. 197. In this history there is a biographical sketch of Colonel Nelson Winch Green, is there not?

A. There is.

X Q. 198. From whom did you obtain the facts contained in that biographical sketch, and in what form were they furnished to you?

A. Mainly, if not entirely, by Colonel Green in writing.

X Q. 199. Was that portion not in writing furnished by him orally?

A. I think it was all in writing.

X Q. 200. Was it published in said history in substantially the same form and language that it was furnished you by Colonel Green?

A. I think so.

X Q. 201. Where did Colonel Green come from when he first came to Cortland?

A. Somewhere in the western part of the State.

X Q. 202. Was it not Dansville, Livingston county, New York?

A. It seems as if that was the place.

X Q. 203. At about the years 1850 to 1856 did he not reside at or near Portage, Livingston county, New York?

A. I have no knowledge on the subject.

X Q. 204. Was his residence, about the period last mentioned, somewhere in Livingston county, New York?

A. I have no knowledge upon the subject of his residence until he came to Cortland.

X Q. 205. Was he at one time a resident of the village of Warsaw, Wyoming county, New York? If yes, state how long he resided there, if you know.

A. I have no knowledge upon the subject.

X Q. 206. Has not Colonel Green acquainted you with the places of his residence and something of his personal history concerning that period of his life which transpired prior to his removing to Cortland?

2308 A. I presume so, but if he has I have forgotten the details.

X Q. 207. During the time that you and Colonel Green were copartners were you not personally intimate with him, and did he not disclose to you facts concerning his previous history, or places of residence, the nature of his occupation at those different places, and other facts connected with his personal history?

A. Colonel Green and I were tolerably intimate for perhaps six months prior to our leaving here, and may be eight months; he did tell me something of his history, something about where he resided, and something about his business in a general way, but it has all departed from me except the fact that he came from somewhere in the western part of the State; that he had attended the West Point Military Academy, and received an injury just before graduation, and that he had studied law somewhere in Wyoming county, New York, with the Honorable James R. Doolittle; and that he had written a book entitled "Fifteen years among the Mormons;" and this is all that I remember of his history, his whereabouts, or his business.

X Q. 208. Did Col. Green and his family, while they resided at Cortland, mingle considerably in society there?

A. I do not now recollect of ever seeing any of the family in society; I have no knowledge on the subject.

X Q. 209. What was the date of Col. Green's dismissal from the service?

2309 A. June 2d, 1862.

X Q. 210. Is the order dismissing Col. Green from the service contained in your history of the 76th regiment, and is it there correctly stated? If so, please read it.

A. A copy of the order is contained in the history, as I believe correctly, and is as follows (witness reads):

"Special order No. 124.

"WAR DEPARTMENT, ADJUTANT GENERAL'S OFFICE,
"WASHINGTON, *June* 2, 1862.

"At the recommendation of the Governor of New York, Col. N. W. Green, of the Seventy-sixth regiment New York Volunteers, is hereby discharged the service.

"Order of the Secretary of War:

"L. THOMAS,
"*Adjutant General.*"

X Q. 211. Your history also contains a statement of facts on pages 347 and 348; by whom was that statement compiled?

A. I think it is the brief made up by Green on his application to be recognized as colonel of the 76th regiment.

X Q. 212. Was it prepared by himself?

A. I think it was.

X Q. 213. Please now read it.

A. (Witness reads): "In the matter of Col. N. W. Green's claim to be recognized the colonel of the Seventy-sixth Regiment of the New York State Volunteers:

"Statement.

"N. W. Green was commissioned as the colonel of the Seventy-sixth regiment by a commission under the hand and seal of the Governor of the State of New York, bearing date October 29th, 1861, and duly mustered into the service of the United States on the twentieth day of November, 1861, by Major J. T. Sprague, U. S. mustering officer at Albany, N. Y.; and was in actual command of said regiment from its first organization, September, 1861, until about the twenty-fifth day of February, 1862, when he was arrested 2310 by order of Gen. Doubleday, near Washington, D.C., without charge or reason assigned, which arrest continued until the twelfth day of April, 1862, at which date he was, by order of the Secretary of War, released from arrest and required to repair to Cortland county, N. Y., there to await further orders; which requirement he obeyed, and has remained at Cortland county until the present time; and no further order has ever been made known to him, except the order in the words and figures following, to wit:

"Special order No. 124.

"WAR DEPARTMENT, ADJUTANT GENERAL'S OFFICE,
"WASHINGTON, *June* 2, 1862.

"At the recommendation of the Governor of New York Col. N. W. Green, of the Seventy-sixth Regiment New York Volunteers, is hereby discharged the service.

"Order of the Secretary of War:

"L. THOMAS,
Adjutant General.

"The regiment named in said order was mustered into the service of the United States for three years, and their term of service does not expire until about October, 1864.

I.

"The above order of the Secretary of War is a nullity and without authority of law.

"1st. (11th article of war.) The President alone has authority to make an order discharging a commissioned officer.

"2d. The President (previous to the act approved July 17th, 1862) could make such order only—

"1st. On the expiration of the term of service.

"2d. Resignation.

"3d. Partial disbandment of the army.

"4th. Sentence of court martials.

See DeHart's Military Law, p. 228 to 243.

II.

"And even after the passage of the act approved July seventeenth, 1862, sec. 17, enabling the President to 'dismiss and 2311 discharge' any officer 'for any cause,' etc., it is submitted that the President cannot arbitrarily discharge without cause. He must at least know of the case or hear what the charges are and determine from some basis that the cause renders the officer unsuitable for the public service or that his dismission will promote the public service; but this power, after the passage of said act, is not important in determining the effect or legality of orders made before its passage. The order in question is of the date of June third, 1862. This law cannot be said to affect previous orders, but only to confer new authority upon the President for the future.

III.

"The legal effect of said order No. 124 cannot be determined except by considering the power of the Secretary of War at the time, and, even if such an order were made by the President, its legal effect must be determined by considering his power at the time.

"The causes which led to this order are of course of no importance in determining the question, What is the legal effect of said order? Were the causes deemed important Colonel Green is ready and willing to vindicate himself against any charge which can be invented against him, only asking, if required to do so, that he may be informed what the charges are, and that their truth or falsehood may be determined by fair trial before any legally constituted tribunal. Such an investigation he earnestly, but respectfully, solicits, if deemed of any importance.

IV.

"But if such order No. 124 be a nullity, then Colonel Green is, as he claims to be, the colonel of the Seventy-sixth regiment, and, as such colonel, respectfully asks that he be restored to his command."

X Q. 214. Did Colonel Green accompany the regiment to Albany?

A. He did.

2312 X Q. 215. And from Albany to New York?

A. He did.

X Q. 216. And from New York to Riker's Island?

A. He did.

X Q. 217. And from Riker's Island to Washington?

A. He did.

X Q. 218. And from Washington to their encampments in the several forts mentioned?

A. He did.

X Q. 219. Did you, while engaged in drilling at Squires' Hall, contemplate becoming a lieutenant or officer in the Seventy-sixth regiment, and did you engage in such drills with that object in view?

A. Yes, sir.

X Q. 220. Was it with a view of becoming a lieutenant, or what particular office or rank did you then anticipate holding?

A. Lieutenant and acting quartermaster.

X Q. 221. Was the subject of how the offices should be divided among the members composing the drill squads the subject of discussion and agreement at that early day?

A. If it was I do not remember.

X Q. 222. Do you, on reflection, now recollect that the matter of becoming quartermaster was discussed and advised about at these meetings for squad drill?

A. I do not at these meetings.

X Q. 223. When was it first decided and when were you first detailed as quartermaster to the Seventy-sixth regiment?

A. It was first decided that I should be quartermaster when we talked of raising the regiment, which was sometime not far from September 2d, 1861—probably after that; I was detailed about the time we went into camp, which was about September 26th, 1861, and I acted as such until I resigned.

By Mr. SUGGETT:

X Q. 224. Your record shows that Green was ordered home April 24th, 1862, does it not?

2313 A. It appears that he was continued under arrest until April 12th, 1862, when he was released from arrest and required to repair to Cortland county and there await further orders.

X Q. 225. When, in 1862, did you arrive home?

A. May 23d or 24th, 1862.

X Q. 226. Where did Colonel Green live when you arrived home?

A. Near the carding-mill, in Cortland.

X Q. 227. How long did he continue to live up by the carding-mill, as you have stated?

A. I do not remember.

X Q. 228. Did he live near the carding-mill at the time of his trial?

A. That I do not know.

Proceedings adjourned until 2 o'clock p. m.

2 O'CLOCK P. M.

Convened pursuant to adjournment.
Present: As before.

2314 Cross-examination of ABRAM P. SMITH resumed by Mr. SUGGETT:

X Q. 229. In the year 1862 what was Colonel Green doing in the month of June, in this village or elsewhere?

A. I do not know.

X Q. 230. I ask you the same question for the month of July.

2315 A. I cannot select out any month between that time and this and tell what he was doing in that particular month.

X Q. 231. Where was your office after returning from the army, in 1862?

A. It was over Cloyes' grocery, on Main street, in Cortland village.

X Q. 232. And how long did you continue to have your office there?

A. I think until January 1st, 1868; I will not be certain.

X Q. 233. And was that office in about the business center of Cortland village?

A. Nearly so.

X Q. 234. Was Colonel Green a frequent caller at your office from May, 1862, until 1866?

A. He was.

X Q. 235. Where was the office of M. M. Waters at that time?

A. I think it was over the National Bank, where it is now, but I am not certain.

X Q. 236. Did you frequently see Colonel Green at Waters' law office from 1862 to 1864? State what the facts are.

A. I saw him there occasionally; I should say about a dozen times would cover it within that period; I was never very often in Mr. Waters' law office.

X Q. 237. State how many times he was at your law office from 1862 to March, 1864. Give as near as you can the number of times he came a day or week.

A. He was in there very frequently; I should say nearly every day when he was in town. Some days he was not there—sometimes possibly a week.

X Q. 238. Was the engine-house on the opposite side of the street from your office at that time?

A. Nearly opposite.

X Q. 239. Have you also seen Colonel Green, during the period of time last mentioned, frequently at the office of Duell and Foster, in this village?

A. I do not remember of ever seeing him there; I may have seen him.

2316 X Q. 240. What other law offices in this village during that time have you seen him at?

A. I have seen him at Judge Crandall's a number of times, I think. I do not remember of any other office.

X Q. 241. Where was Judge Crandall's office from 1862 to 1864?

A. I do not know. It was in this village, on Main street.

X Q. 242. During the time that Green was at your office, as you have testified, he was more or less engaged in discussing the news concerning the armies in the field, was he not?

A. That entered largely into our conversations.

X Q. 243. And did he not come in there to read the newspaper and criticise and discuss the plans and operations of the Federal army and generals?

A. He came in there and we discussed them and he read the papers when they were there, and sometimes brought in some.

X Q. 244. How long would Green usually stay at a time in your office?

A. There was no rule on the subject; sometimes very short, only a few minutes; then again for an hour or two.

X Q. 245. Could the engine-house be plainly seen from the windows of your office?

A. Yes.

X Q. 246. In passing down the stairs from your office at that time would one face and be in plain sight of the engine-house?

A. Yes.

X Q. 247. Where was the post office in those years, from 1862 to 1864?

A. I guess it was back of the bank.

X Q. 248. Did you not go to the post office daily during those years?

A. Every day, two or three times a day, for the last twenty-five years when I have been in town.

X Q. 249. And still you cannot tell where it was in the village from 1862 to 1864, can you?

A. I cannot. It has been changed at least half a dozen times, and I make no memorandum of the years when changed.

2317 X Q. 250. Will you swear that the post office has been changed more than once since 1862?

A. No; I won't.

X Q. 251. On reflection, what is your best recollection as to it?

A. My best recollection is that it has been in three different places since 1862, but I may be mistaken.

X Q. 252. Specify those places.

A. One was a little old wood building formerly occupied by his predecessor; then in the brick building back of the National Bank; and then where it now is.

X Q. 253. Did you see Colonel Green frequently on the streets in and about the village from 1862 to 1864?

A. Yes.

X Q. 254. About how often?

A. I could not give any estimate. I saw him frequently.

X Q. 256. Did you see him daily?

A. I should think pretty near that.

X Q. 257. Where did he then reside?

A. I should have said that he resided near the carding-mills if counsel had not said to-day that he moved down into the village.

X Q. 258. From your office in the village how far was it to his place near the carding-mills?

A. About half a mile.

X Q. 259. On reflection, do you not now remember that Colonel Green lived in the village in a place then owned by Daniel Bradford, where the Masonic Hall block now stands?

A. I have not the least recollection of it.

X Q. 260. If he did live there from April, 1862, and until the spring or summer of 1863, were you a frequent visitor at his house?

A. I think I must have been, but I have no recollection.

X Q. 261. After your return in 1862 did you not learn of and frequently see driven wells?

A. Some time after 1862 I did.

X Q. 262. Do you remember of seeing any in that year or knowing of any?

A. No, sir.

X Q. 263. Did you see the driven well made by James Suggett in front of the engine-house?

2318 A. I did see him putting it down; that I remember distinctly.

X Q. 264. You could see that plainly from your office, could you not?

A. Yes.

X Q. 265. Did you frequently see a large crowd of people around it while they were driving it?

A. I do not remember.

X Q. 266. What did you see?

A. I saw Mr. James Suggett driving a pipe into the ground, I think, with a sledge or maul.

X Q. 267. And was he to work at that for a number of days?

A. I think so.

X Q. 268. At or about that time did you not hear or know that these driven wells were going into public use and had become a common and public thing in the village?

A. I think not at that time.

X Q. 269. Will you swear positively that that is not so?

A. I will not.

X Q. 270. When was it that this squad drill at which this conversation took place occurred?

A. I should put it between the 20th and 25th of September, 1861, but I might be mistaken a few days.

X Q. 272. Do you profess to swear positively that you have given the exact language used by Green on that occasion?

A. No, sir; I did not on my direct and do not now profess to give the exact language.

X Q. 273. Was not this the language that he then used: "Take a bar, drive it into the ground, withdraw it, then insert a pipe, and then put in a pump to draw the water?"

A. That may have been the language; that was the idea, except putting in the pump, which should have been "put on the pump."

X Q. 274. Will you swear positively that he said "put on a pump?"

A. No.

X Q. 275. You were not quartermaster at the time of the conversation, were you?

2319 A. I think not.

X Q. 276. Will you swear that you were?

A. I will not.

X Q. 277. Then what do — mean when you swore on your direct that Green turned to you and said, "Quartermaster, you provide transportation?"

A. I mean that from the time it was decided that the regiment was to be raised it was understood in the regiment, and more especially by myself and Colonel Green, that I was to be the quartermaster of the regiment, and I was so called, and immediately on the regiment coming together, or the nucleus of it, I was detailed to that duty.

X Q. 278. How soon after this conversation with Green was it before the experiment took place at his house?

A. I have not the least idea.

X Q. 279. How long was it after the talk before you walked down with Mudge, as you have testified?

A. That was the same day the well was put down. I have nothing to fix that date on my mind; if I were to guess I should guess from two to four weeks.

X Q. 280. Did you see that experiment made at Green's house, or any part of it?

A. No.

X Q. 281. Did you see any of the tools there used?

A. Nothing but that thing which imitates a saw-horse, only taller, which they said had been used for putting the well down, and I think I saw the pipe sticking out of the ground. I cannot say whether there was a pump on or not.

X Q. 282. Do you have any distinct recollection of that pipe you saw sticking out of the ground?

A. Not so as to describe it; I saw it there.

X Q. 283. Where was this with reference to the creek on Green's premises?

A. It was near the little brook which runs on the west side of the house and on the east side of the brook twelve or fifteen or twenty feet from the road fence.

X Q. 284. Did you go up to this pipe sticking out of the ground?

2320 A. No; I did not.

X Q. 285. Then you only saw this pipe from the road?

A. That is all; I should think I was perhaps two rods from the pipe when I saw it; I do not know anything about the depth of the hole or the size of it or the condition of the earth around the pipe, or whether or not water could be seen around the pipe in the hole.

X Q. 286. Then you do not know whether or not any pump was to be used on this pipe you saw sticking out of the ground there or not, do you?

A. Not of my own knowledge.

X Q. 287. Did you not understand that the tin pipe you saw sticking out there was a tin pump of itself?

A. I did not so understand it.

X Q. 288. Did you not see a spout and a funnel-shaped top to it?

A. As I said before, I have no recollection of the appearance of that pipe so as to give any sort of description; I only remember that I saw something sticking out of the ground.

X Q. 289. Who do you understand made this experiment at Green's house?

A. I understood that the gentleman we called Lieut. Mudge took part in it; I never understood whether he did it alone; I did understand he superintended it.

X Q. 290. Do you understand that this was the only experiment made at Green's house?

A. It is the only one that I remember of.

X Q. 291. What do you know about the so-called driven well on the fair ground?

A. I simply know that I understood there was a driven well there; I think I drank from it; I cannot tell who put it down nor when it was put down, nor exactly where, nor the process of putting it down, and the recollection of it at all is very dim, and I do not recollect what I saw when I drank from it; the one I refer to was in the mess-room; I do not understand there was more than one driven well there.

X Q. 292. Did you furnish any transportation for driven-well tools, so called?

A. There was none furnished specially for tools.

2321 X Q. 293. Do you remember of seeing any machinery for making driven wells or other tools?

A. No, sir; I do not think any were taken; I had charge of the transportation and would have been likely to know it.

X Q. 294. Were these kind of wells called driven wells at that time?

A. I do not remember of having heard any name applied to them.

X Q. 295. Did you ever hear the name artesian wells applied to them at that time or subsequently up to 1864 or 1865?

A. I have heard them called, I think, artesian wells, but whether before that time or since I cannot tell.

Proceedings adjourned until 7 o'clock p. m.

7 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of ABRAM P. SMITH resumed by Mr. SUGGETT:

X Q. 296. How far was it from Green's house, near the carding-mill, to the camp ground?

A. About a third of a mile, I should think.

X Q. 297. What was the distance from your office across the street to the engine-house?

A. About three or four rods.

X Q. 298. In passing from Green's residence, near the carding-mill, to the post office by the usual traveled route, would one have to pass by the place where this well was made in front of the engine-house?

A. Yes, sir.

X Q. 299. It was in the summer time that Suggett made this driven well in front of the engine-house, was it not?

A. That is my recollection.

2322 X Q. 300. What do you say as to the year that Suggett drove this well in front of the engine-house, it being the first, or about the first, that you ever saw? Please state.

A. I cannot give any idea of the year. I have no known data with which to associate that event.

X Q. 301. Supposing that Col. Green lived in the Bradford House from April, 1862, until the summer of 1863, how far would it be from that place to the place where Suggett made this well in front of the engine-house?

A. About ten rods.

X Q. 302. And at that time would it be in plain sight of the Bradford House?

A. Yes, sir.

X Q. 303. Was the place where Suggett made this well on the outside of the sidewalk and in the traveled part of the street?

A. I think so.

X Q. 304. Main street, on which this well was made by Suggett, was the principal street of the village at that time, was it not?

A. It was.

X Q. 305. What was the size or population of Cortland village from 1862 to 1864?

A. I should say from 3,000 to 3,500.

X Q. 306. You are the owner of some territory under this N. W. Green's patent, are you not?

A. I think I am not; a deed of a county, I think, was given to me of Ozark county, New York. I have been over a good share of the State and have been unable to find any such county.

X Q. 307. Will you swear that this deed is for this county which you have named?

A. I will not; except that my son so informed me to-day. I supposed it was Ozark county, Missouri.

X Q. 308. Colonel Green gave that deed to you, did he not?

A. Yes, sir.

X Q. 309. At one time in 1872 or 1873 or thereabouts were you on friendly and intimate terms with William D. Andrews?

A. I don't know what year I became acquainted with him; ever since then I have been on friendly terms, but not intimate.

2323 X Q. 310. Did you not, while acting as a probate court, at the court-house in this village, in 1873 or 1874, frequently invite and have William D. Andrews sit beside you on the bench?

A. I do not remember of his ever sitting upon the bench beside me; he might have done it.

X Q. 311. Will you swear that he did not?

A. I will not.

X Q. 312. From 1862 to 1866 what were the number of courts of oyer and terminer held a year in this county?

A. I think only two.

X Q. 313. Was Colonel Green ever prosecuted for any alleged criminal offence, except the McNett affair, in Cortland, from the time he moved here until the time he left?

A. Not to my recollection.

X Q. 314. Where did Colonel Green live in the village of Cortland when he first moved here?

A. The only place that I have any recollection of his living at all, here in the village, was there at the carding-mill. I did not know Green when he first came here.

X Q. 315. These various matters that you have testified here about, in reference to this case of the People *vs.* Nelson W. Green, are matters of public record and are contained in the county clerk's office, about four or five rods from the place where this testimony is being taken, and are accessible to the complainants, and certified copies can be obtained there; is this not so?

A. I suppose the records of the court of oyer and terminer are in the clerk's office within four or five rods of this place; they are open for the inspection of any respectable lawyer or other person, and I suppose certified copies can be obtained by any person; they should show when this case was called up in court, what disposition was made of it, when the case was tried and how long, and what decision was made, and any bail that was given and the amount of it, but they will not show the preparation made for the trial.

X Q. 316. Will the files of that county clerk's office contain
2324 the original affidavits and papers made and used to put this
case over from time to time, as you have stated?

A. They should; but very often those affidavits are not filed unless by order of the court.

X Q. 317. Is it not a statute of the State of New York that such papers are required to be filed with the clerk?

A. I think there is such a statute.

X Q. 318. And you do not know, of your own knowledge, but what all the papers used in this case are on file there, do you?

A. No, sir.

X Q. 319. It is a statute of the State of New York, and was from 1861 to the present time, that a justice of the peace was obliged to keep a written docket of all civil cases before him; is it and was it not?

A. Yes, sir.

X Q. 320. And in such docket the justice must record or make an abstract of all proceedings had before him, giving the dates, time of adjournment, on whose application, trial, and all the other proceedings in a suit, from its commencement to its close, including the judgment rendered; is this not so?

A. I think from your statement in this question you have shown yourself quite well read in the law applicable to justices' courts in the State of New York, as laid down in the statutes of the State, and the practice as settled thereunder. To the balance of the question I answer yes.

X Q. 321. Is it also a statute, and has such statute been in force since 1861, requiring any justice of the peace of any town in any county of the State, after the expiration of his term of office, or when his office becomes vacant by any other reasons, to file his docket and all other papers of his office with the town clerk of the town, where said docket and papers are to be safely kept by the town clerk, open and accessible to the public, from which transcripts or certified copies may be obtained by application; is this not so?

A. I am aware that there is such a statute as to dockets, but I am not aware that it extended to all the papers.

2325 X Q. 322. In testifying here as to these justices' suits, have you seen or examined any of the dockets of the justices before whom the same were tried?

A. No, sir.

X Q. 323. From 1861 up to 1867 what was the original jurisdiction of a county court in this State?

A. It had jurisdiction of a good many cases; I could not tell them all.

Redirect examination:

R. D. Q. 324. In speaking of the drill squads that were organized early in the fall of 1861, you have stated that there were certain persons who acted as officers, including yourself; were you usually called and addressed by the name of office by members of the drill squad from its beginning?

A. I cannot say we were from the beginning; but when it became settled what offices we were to hold we were addressed by our titles of office.

R. D. Q. 325. Can you state about when that was settled?

A. As fast as it became determined what offices we were to hold we were called by our titles.

R. D. Q. 326. From the time that you saw the driven well on the fair ground, and the one at Green's house, referred to in your testimony, had you seen a driven well, to your knowledge or recollection, down to the time that you saw Suggett driving a pipe by the engine-house?

A. I do not remember of having seen any between those dates.

R. D. Q. 327. Do you know how the driven wells are made that are now commonly in use here in Cortland?

A. I have seen several of them put down, and I know how they were put down.

R. D. Q. 328. Was the process that Colonel Green described, as you have stated, for obtaining water, the same process as was used in making those wells which you have seen put down?

2326 A. I think it is the same process, with this exception: Green proposed to drive down a bar, take it out and insert a pipe, while the process, as I have seen it used here, is to drive down the pipe itself in the first instance.

R. D. Q. 329. You have stated on your cross-examination that Colonel Green was at your office frequently during certain years and read the war news from the newspapers, and would discuss sometimes with you and question in regard to it; and would he generally, in connection therewith, run off into his troubles in relation to his being colonel and the McNett affair? Please state generally how that was.

A. He did very frequently do so. It was a sort of habit with him, when he talked for any considerable length of time about the war, to run off upon the subject of the attempt to dismiss him, and then he very often discussed the law on that subject, as to the power of the Governor to dismiss him without a trial. Very often he would have up the question of discipline of men, and that would bring up the McNett affair sometimes.

R. D. Q. 330. Do you remember of Colonel Green's stating to Lieutenant Mudge, prior to the making of the driven well at Green's house, that "you (Mudge or Lieutenant Mudge) are an ingenious man; you get up something and try the experiment," or something to that effect?

A. Yes, sir.

R. D. Q. 331. That was said in reference to what? Please explain.

2327 A. With reference to putting down these wells wherever we should stop in the army. My best recollection is that that was said at the same time that he spoke concerning how wells might be put down—I mean at Squires' Hall, but that I cannot be certain of.

R. D. Q. 332. How many days did the trial of the indictment against Colonel Green consume?

A. It commenced Monday, April 30th, 1866, and ended Saturday, May 5th, 1866.

Proceedings adjourned until Thursday, August 12th, 1880, at 9 o'clock a. m., at this place.

2328-2329 THURSDAY, *Aug. 12th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: D. L. Hurlbut, Esq., of counsel for complainants, and I. H. Palmer, Esq., who appears specially for defendant.

Defendant's counsel consent that the witness, Abram P. Smith, may stand aside for his convenience, as stated above, to be produced hereafter, as above stated.

THURSDAY, *Sept. 9th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: Noah J. Parsons, for complainants, and Irving H. Palmer, for defendant.

Proceedings adjourned until 10.30 o'clock a. m., at the office of the county judge and surrogate, at Cortland village, N. Y.

10.30 O'CLOCK A. M.

Convened pursuant to adjournment.

Present: Noah J. Parsons, for complainants, and John W. Suggett, for defendant.

Defendant's counsel states that Irving H. Palmer, Esq., has requested him to appear specially in his place and stead this morning.

ABRAM P. SMITH is here produced by the complainants for further cross-examination.

2330 Proceedings adjourned until 1.30 o'clock p. m.

2331 1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: Noah J. Parsons, for complainants, and John W. Suggett, for defendant.

Defendant's counsel states that Irving H. Palmer, Esq., has requested him to appear specially in his place and stead this afternoon.

ABRAM P. SMITH is here again produced for further examination.

Complainants here state that the redirect examination of the witness is closed.

Defendant's counsel here states that he enters upon the recross-examination of this witness conditionally, as heretofore stated.

R. X Q. 333. On which side of the house did you see the saw-horse where they had been making the experiment at Green's?

A. I think it was on the west end of the house.

R. X Q. 334. And there was where you saw the pump or pipe sticking up out of the ground, was it not?

A. That is my recollection of it.

R. X Q. 335. And it was there between the creek that runs along on the west side of the house and the house itself, was it not?

A. I think so.

R. X Q. 336. Is that your best recollection?

A. It is.

R. X Q. 337. Now, taking that recollection and also the fact that in walking down with Mudge that night you said to him that perhaps they might get water out of a hole made by the side of a creek, or in substance, that the location of the well then being fresh in your mind, are you confident and fully positive that you have given its location?

A. I am confident that I have given its location as I remember it, but I may be mistaken as to its location.

R. X Q. 338. Is your recollection as clear that you saw the saw-horse, as you have testified, as anything that you have testified to on this examination?

A. No, sir.

2332 R. X. Q. 339. When did this conversation take place with Mudge?

A. I could not tell the day or even the month; it was after the 26th day of September, and before the 18th day of December, 1861, and a considerable time before this latter date; I think it was the latter part of September or fore part of October.

R. X Q. 340. Where did this conversation with Mudge take place? Fix the location.

A. It was in the highway just southeast of Green's residence and along near the bridge and over the bridge near the raceway, and near Mr. Dibble's residence.

R. X Q. 341. Who was present besides yourself and Mudge?

A. I remember no one.

R. X Q. 342. What did you do that day? Tell a specific act that you did which you are willing to swear positively to.

A. I remember no specific act done that day, except walking down from the camp-ground to the village at the time of the conversation.

R. X Q. 343. You do not swear positively, do you, that you have given the exact language used by yourself and Mudge on that occasion?

A. I do not.

R. X Q. 344. Will you swear positively that you have detailed the conversation with Mudge on your examination in this case as you did in 1866?

A. I cannot swear how I detailed it in 1866; I have detailed it now as I recollect it.

R. X Q. 345. If you detailed it then materially different from what you have now, which of the statements will you adhere to?

A. I should think I would have remembered it better in 1866 than now.

R. X Q. 346. And will you adhere to your testimony then given?

A. I will adhere to that as being my recollection at that time and to this as being my recollection now; I will not adhere positively to either if there is any difference; I might be mistaken as to words.

2333 R. X Q. 347. Do you wish your last answer to apply also to the conversation that Colonel Green had about making the well at Squires' Hall?

A. Yes, sir.

R. X Q. 348. It is now about nineteen years ago since this conversation at Squires' Hall, is it not?

A. I should say within a month of that.

R. X Q. 349. And during that nineteen years constant and pressing and professional and official duties have consumed most of your time; is this not so?

A. Yes, sir; I have had a very active and busy life.

R. X Q. 350. And do you now state that you are not mistaken as to whether or not Green stated in that conversation that a pump was to be attached to the pipe?

A. I think I am not mistaken in saying that he said a pump was to be put upon the pipe; whether he said on the pipe or in the pipe I am unable to say.

R. X Q. 351. Supposing that the tubing that was furnished for the purpose of being taken with the regiment, as you have testified, was made of sheet-iron or zinc, in lengths of about two feet each, so as to be put together like ordinary stovepipe, and about two inches or two and a half in diameter, and that the testimony of Colonel Green is that an ordinary boat pump was to be used therein, would you be positive that the pump was to be put on the pipe?

A. No, sir; in that case I should say that the pump was to be put in the pipe; but, as I remember, there was no pipe furnished, and no clear description of it given, that I understood.

R. X Q. 352. Assuming that Mudge, subsequently to this experiment at Green's house, in making experiments for the purpose of testing this method of obtaining water, and up to the fall of 1862, made his experiments and wells in substantially the following manner: by driving or forcing a rod of iron into the earth, and lining the hole made thereby with sheet-iron tubing, as stated in the preceding question, and inserting within this sheet-iron tubing a pipe, with a pump attached, or an ordinary boat pump, would this shake your recollection as to Green's saying that a pump was to be put on the pipe?

2334 A. That alone would not.

R. X Q. 353. Will you swear that you have not blended your present knowledge of the manner of making driven wells with the statement of Green at the time, and thus confused the two as to what was really said?

A. I do not think I have; I may put more stress on the word "on," when I say "put a pump on the pipe," by reason of my subsequent knowledge.

R. X Q. 354. What were the newspapers published in this village in 1859?

A. I do not know; there has been a brood of them, and I cannot tell when they were started nor when they collapsed.

R. X Q. 355. Permit me to refresh your memory. Were there not two papers—the Cortland Gazette, edited by Charles P. Cole, and also the Republican Banner, edited by E. D. Van Slyck and S. D. Hitchcock?

A. I think the two papers named by you were published here in 1859, and represented the two political parties mentioned in your question, as therein stated. I know that Charles Parley Cole pretended to edit the Gazette, and think the Banner was at one time edited by Edward D. Van Slyck and Stephen G. Hitchcock, but whether Hitchcock was in in 1859 I am not certain.

R. X Q. 356. How long did these papers continue to be published thereafter?

A. I cannot tell the number of years.

R. X Q. 357. Permit me again to refresh your memory. Did not these papers continue to be so published until 1861, when the war broke out, when they were merged together and made a Republican newspaper called the Gazette and Banner and edited by Charles P. Cole?

A. They did continue to be run separately until the war broke out and some time after. Van Slyck went to the war in the Seventy-sixth Regiment New York Volunteers; Parley Cole pretended to be converted to Republicanism; the papers were consolidated under the name of Gazette and Banner, and as such were for a time edited by Charles P. Cole, but I have no recollection of the date of said consolidation; I think it was about the time we went to the war.

2335 R. X Q. 358. Did not the Gazette and Banner continue to be the only newspaper published in Cortland village during the years of the war?

A. I think so.

R. X Q. 359. You were a regular subscriber to the Gazette and Banner during the years named, were you not?

A. I cannot swear positively, but I think I did not take the Gazette and Banner while Cole was running it, because I did not like him; I might have done so, it being the only village paper.

R. X Q. 360. Charles P. Cole, mentioned above, is dead, is he not?

A. Yes, sir; so I understand.

R. X Q. 361. When do you understand the publication of the Gazette and Banner ceased?

A. From reading "The Historical Atlas of Cortland County" I am satisfied it ceased in 1869; I have no personal recollection of the subject.

R. X Q. 362. Did you know Frank D. Wright while he resided here?

A. I did.

R. X Q. 363. And did he reside in the family of Col. Green?

A. If he did I have either no recollection of it or have no knowledge of it.

R. X Q. 364. Do you not remember of seeing him at Col. Green's frequently?

A. I do not.

R. X Q. 365. Will you swear that he did not board at Col. Green's house?

A. I will not.

R. X Q. 366. What part of the town of Cortlandville, in this county, is the village of Cortland, and how was it in 1861 and down to 1864?

A. I never measured either the town or the village; I do not know how big the village is.

R. X Q. 367. Do you hold in your hand now "The Historical Atlas of Cortland County," upon which you relied in giving an answer to a question a short time ago?

A. Yes, sir.

2336 R. X Q. 368. Will you now look at the map of the town of Cortlandville in said atlas, and will you compare the size of the town of Cortlandville with that of the corporation of Cortland village by counting the lots, which are a mile square and are known as sections?

A. There seems to be a little over fifty-two lots in the town, and of that the village covers about four, being a ratio of about one-thirteenth.

R. X Q. 369. And prior to 1866 did the corporation of Cortland village consist of but one lot?

A. You seemed to have looked it up with reference to asking these questions; I have not, and cannot tell.

R. X Q. 370. Will you now look in the Session Laws of 1866, which is in your office here, and see if this village was not then enlarged?

A. I will not, unless compelled to do so.

R. X Q. 371. Then I understand that you refuse so to do, although the information is within five feet of you, and you have been respectfully asked to examine the same; is this so?

A. I cannot tell what your understanding of the matter is, but the fact is this: After an examination of nearly four days and one night, during all of which time I have been kept from the performance of my official duties, much of the time for the apparent purpose of killing time, I most respectfully but firmly decline to brief up the statutes of the State of New York for the learned gentleman who is the author of my torture.

R. X Q. 372. Do you refuse to answer my last question and produce the information asked for in it? Answer yes or no.

2337–2340 A. I do not; the book is here and you can consult it, but I do not propose to brief up the law after having sworn to all the facts connected with the history of the village, or nearly all.

R. X Q. 371*a*. Do you refuse to furnish the information asked for? Answer yes or no, and please do not make any voluntary statements.

A. I will testify to all facts within my knowledge or recollection, but getting up from my sick bed, as counsel knows I did yesterday, I will not brief up the law.

R. X Q. 372*a*. Did I ask you to come here this morning to be examined, or to get up from a sick bed?

A. No, sir; not that I recollect.

R. X Q. 373. Then will you please answer my question?

A. I will not other than I have.

R. X Q. 374. Then do you refuse to turn to the statute and say from it whether or not the village was then enlarged?

A. Yes.

R. X Q. 375. And you so refuse, absolutely and unqualifiedly, do you?

A. Yes, unless I am compelled to do so by the court, or have a retainer for looking up the law.

2341 OFFICE OF COUNTY JUDGE AND SURROGATE,
MAIN STREET, CORTLAND VILLAGE, NEW YORK,
MONDAY, *September 20th*, 1880—7.30 o'clock p. m.

Convened at above time and place pursuant to agreement of counsel present.

Complainants appear by Geo. L. Waters, Esq.; defendants appear by John L. Suggett, Esq.

ABRAM P. SMITH produced for further cross-examination.

By Mr. SUGGETT:

X Q. 376. Please give the exact date of the shooting of McNett.

A. December 6th, 1861.

X Q. 377. After Colonel Green was relieved, for the time being, from his command for that shooting when and where was he restored to his command?

A. On the 28th day of December, 1861, at Albany.

X Q. 378. And was he so restored after a hearing before a court of inquiry convened for that purpose?

A. Yes, sir.

X Q. 379. And did he subsequently remain in command of that regiment until relieved at Washington, about the 19th day of March, 1862, when he was arrested?

2342 A. Yes sir.

X Q. 380. And after his being sent home in April, 1862, did he have anything more to do with the 76th regiment, and who succeeded him in command?

A. He did not, that I know of; Lieutenant Colonel Shaul succeeded him in command.

X Q. 381. And was Colonel William P. Wainwright subsequently made colonel of that regiment, and did he afterwards command it?

A. Yes, sir.

X Q. 382. Were you present in Albany on the 17th of January, 1862, when Colonel Green made a speech in behalf of the regiment in reference to a flag presented by Mrs. Campbell?

A. Yes, sir.

X Q. 383. How did you consider that speech, as to merit, etc.?

A. It had the merit of expressing a promise of valiant service in a patriotic cause.

X Q. 384. No plea of mental aberration or of insanity was interposed or put in by Green in defence of the indictment against him for shooting McNett?

A. No, sir.

Cross-examination of this witness closed.

Redirect examination:

R. D. Q. 385. State what you know concerning the habits of Colonel Green in relation to the use of alcoholic stimulants and tobacco.

A. I have no recollection of ever seeing or hearing of his ever using a drop of alcoholic stimulants or any tobacco.

Redirect examination of this witness closed.

Recross-examination:

2343–2354 R. X Q. 386. Do you swear positively that he did not use the articles mentioned in the last question, or either of them?

A. I will not.

Examination of this witness closed.

A. P. SMITH.

Sworn and subscribed before me this 20th day of September, 1880.
[SEAL.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

Further proceedings under this notice are here adjourned *sine die.*
[SEAL.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

2355 AUGUST 14TH, 1880—9 o'clock a. m.

Case called, and plaintiffs appear by Hon. Milo Goodrich; defendants do not appear.

CHARLES C. TAYLOR, being duly sworn in the case of "William D. Andrews *et al. v.* George Leland *et al.*," and being also duly sworn in the case of "William D. Andrews *et al. v.* George Leland," separately, testified as follows:

Q. 1. State your name, age, occupation, and residence.

A. Charles C. Taylor; age, 58; occupation, drover; residence, Cortland.

Q. 2. Are you a member of the local board of managers of the State Normal School here in Cortland village; and, if so, how long have you been?

A. Yes, sir; I have been such since its commencement, eleven or twelve years ago.

Q. 3. Did you reside here in Cortland during the late war of the rebellion?

A. I did, sir.

Q. 4. Did you have knowledge of the organization here of the 76th Regiment of New York Volunteers, under Colonel Nelson W. Green, in the year 1861?

A. I did.

Q. 5. Were its quarters upon the agricultural fair grounds here near the village?

A. Yes, sir.

Q. 6. Did you interest yourself in its organization?

A. I felt interested in it. I talked about it and encouraged it as much as I could.

Q. 7. Were you at that time acquainted with Colonel Green; and, if so, how well acquainted with him?

A. Yes, sir; I was acquainted with him. I had seen him before, but my acquaintance with him grew more on account of his relations with the regiment?

Q. 8. Do you know anything about, if so, what do you know, as to his having invented or discovered the new method of well making which has since come to be known as the driven well?

2356 A. He told me that he had discovered a way of getting water for his well that they couldn't poison.

Q. 9. About what time was this?

A. About the fall of 1861.

Q. 10. Did he describe the way or process of making a well?

A. By driving a gas pipe into the ground and putting a pump on it.

Q. 11. Were you aware of where his first experiment was made and when and where his second experiment was made and when?

A. I knew there was one made down by his house and one on the fair ground where the regiment was, but which was put down first I can't now tell.

Q. 12. Were they both put down while the regiment remained here on the fair ground in the fall of 1861, can you say?

A. They were.

Q. 13. How familiar had you become with the country and people in the towns of Cortland county and the surrounding country, both in this and in other States, prior to the fall of 1861?

A. I have spent most of my time buying stock, and consider myself quite familiar with the country and people in this locality, and also in parts of Pennsylvania, Ohio, and Massachusetts, and this for twenty years previous to 1861.

Q. 14. State whether, in the course of this business, you had or not become familiar with the people in the town of Preble, in this county, and whether you knew and had dealt with Moses and William Tallman, of that town, prior and up to the fall of 1861.

A. I had.

Q. 15. Now, Mr. Taylor, up to the time that you say that Colonel Green explained to you his process of making a well, as you say he did in the fall of 1861, had you ever known or heard of a well made by that process, or in that way, either in Cortland county or elsewhere?

A. I had not.

Q. 16. Where was Colonel Green when he explained his method of making a well?

2357 A. Here in the village.

Q. 17. Do you remember to have been at the well on the fair grounds about the time of its construction?

A. I do.

Q. 18. Who was with you?

A. Colonel Green sent up a boy there to show me the well.

Q. 19. Was this on an occasion when you were visiting the regiment, and what in the meantime was Colonel Green doing?

A. I went to see the well more than anything else; it had just been announced; Colonel Green was at the time supervising the drilling of his men.

Q. 20. State whether you yourself pumped any water from the well at that time or saw it done.

A. I pumped it myself.

Q. 21. Did Colonel Green at any time say anything as to his intentions of getting a patent for this method of well making which he explained to you? If so, state when it was and what he said on that subject.

A. That day, when I came back from looking at the well, I said to him it appeared to be a success; he said he intended to make a fortune out of it when he had time to give attention to it; my impression is he said when the war was over.

Recess taken to 2.30 p. m., August 14, 1880, at same place.

AUGUST 14, 1880—2.30 o'clock p. m.

Parties appear.

Hon. Milo Goodrich appears for complainants; defendants do not appear.

Examination of CHARLES C. TAYLOR resumed:

Q. 22. What can you say as to the devotedness of Colonel Green to the business of completing the busines- organization of his regiment at that time and afterwards?

A. I thought he was as much devoted as any man I ever saw during the war.

2358 Q. 23. How much of his time did he give to it, according to your observation?

A. I think all of it.

Q. 24. Going back to that period of time and recalling the state of things here in Cortland as then existing, what do you say as to there being prevalent here two parties—one in favor of supporting the Government and in suppressing the rebellion, the other what was then known as the "copperhead" element, or sympathizers with the rebellion?

A. Such parties existed here; there was a considerable element here of that kind—parties opposed to the war and to raising troops and rejoicing at Union defeats, some of them being prominent citizens.

Q. 25. On which side and how prominent on that question stood Colonel Green?

A. He was on the side of putting down the rebellion; he was rather at the head of the Union element.

Q. 26. Do you or not know whether he had incurred, by public denunciations of the so-called copper-head element of society here, any special hatred on their part?

A. He was in the habit of denouncing them in plain words publicly, and they had special hatred to him, which they expressed publicly.

Q. 27. Did you know of his shooting McNett, a captain of a company in his regiment then being formed, for his (McNett's) being connected with an alleged mutiny in the camp of the regiment and for his open disobedience of the colonel's orders within the camp of the regiment?

A. I knew it from public notoriety at that day.

Q. 28. Now, without undertaking to decide the propriety or impropriety of that act on the part of Colonel Green, what can you say as to the results of it to Colonel Green in respect to any troubles which arose from it to him?

A. It resulted in his suspension from the command of the regiment, and Colonel Wood put in command of the regiment. He was arrested by the civil authorities here. The regiment went away from
here shortly after that to military camp at Albany or Troy, and
2359 Colonel Green went with them, and, I think, under arrest,
and at Albany he was the subject of a military court of inquiry, and he was there restored to his command and thence went to Washington, where he was again put under arrest, and finally returned to Cortland.

Q. 29. Do you know anything about whether he was rejected from his church?

A. He was rejected from the communion with his church, I think.

Q. 30. Do you know whether or not he appealed to the bishop?

A. I do not.

Q. 31. Do you know anything about his being sued for expenses of the regiment? If so, state.

A. Elijah Wheeler told me he sued him for a livery bill.

Q. 32. Following the affair of the McNett shooting, what can you say as to the state of public feeling here towards Colonel Green growing out of it; how soon did it begin after that affair, how long did it continue, to what extent, and how bitter in the community did it prevail? State what you know in response to this question.

A. I know people were very much excited; some very well-meaning men were opposed to him, and there was a strong prejudice against him until his trial occurred and the testimony was given; my recollection is that the trial was in April, 1865 or 1866.

Q. 33. State more fully, if you can, the extent and the bitterness of the feeling that was extended to Colonel Green in consequence of that shooting.

A. It was very bitter; nothing like it ever occurred in this place since I have lived here; it was very general and very bitter until the time of his trial, when certain generals testified in his favor in a manner that modified very much public sentiment here in his favor.

Q. 34. Can you give the names of the military men who appeared as witnesses for him on that trial?

A. General McDougall, General Doubleday, General Robinson, General Davies; I understood they were detailed by the President to come and give their evidence.

2360 Q. 35. What do you know of the condition of Colonel Green as to his ability and the fact of his attending to any other business than those growing out of his military troubles from the time of the occurrence of the McNett affair down to the time of his trial and acquittal upon the trial of his indictment here in Cortland?

A. He appeared more depressed and was inclined whenever I saw him to talk only of his military troubles.

Further examination postponed until Monday, August 16th, 1880, at 2 o'clock p. m.

Monday, August 16th, 1880, 2 o'clock p. m.—Complainants appear by D. L. Hurlbut and Hon. Milo Goodrich; defendants do not appear.

Examination of CHARLES C. TAYLOR continued:

Q. 36. Do you know of Colonel Green's attending to business to any extent other than that growing out of his military troubles from the time that he left Cortland with his regiment, in the fall or early winter of 1861, down to the time of his trial on the indictment in April, 1865, or 1866, as you say? If so, state to what extent, if any.

A. I don't think he had any.

Q. 37. After his return in the spring of 1862 to Cortland was he absent from home at Washington and other places, more or less?

A. I know he was from home looking after military matters, but where he went I cannot say.

Q. 38. Was he only casually or was he much away from home during that period?

A. My impression is that he was at home most of the time; I was not in a situation to know how much he was gone.

Q. 39. You speak of his being depressed during that period when you saw him. Do you know whether he associated generally or whether he was confined to his especial friends in his associations at that period?

2361 A. I think more particularly to his friends; once he remarked to me during that period, at his house, that it was hard for a man to be situated as he was, having a family without being able to do anything.

Q. 40. Do you know whether he sold his cow that had been kept at his homestead during this period?

A. Yes, sir.

Q. 41. Did he sell it himself or did he procure any one to sell it for him?

A. I sold it for him.

Q. 42. Did you sell it at his request or otherwise; and, if at his request, for what reason did he state he wished it sold?

A. I sold it at his request, and my impression is that he was selling it to support his family.

Q. 43. Did you attend his trial upon the indictment here in Cortland?

A. I did.

Q. 44. Were you present to hear the military gentlemen you have spoken of sworn in his defence?

A. I was.

Q. 45. Do you recollect that the jury disagreed, and that thereupon, by advice of the court, a *nolle prosequi* was entered upon his indictment and he discharged?

A. I do.

Q. 46. Who, according to your recollection, presided as the supreme court judge at that court of oyer and terminer?

A. Judge Boardman, I think.

Q. 47. When, according to your recollection, did the driven well come to be discussed here—when with reference to Green's discharge?

A. I think after, more particularly.

Q. 48. To what extent, if any, so far as you know, was the subject of the driven well talked about here in Cortland from the fall of 1861 down to the close of the war, or say down to Green's trial upon his indictment?

A. I didn't hear much said about it until Suggett commenced putting them down under his patent; I can't say when it was.

2362 Q. 49. Do you or not remember to have observed the attempt to construct a driven well in the margin of Main street in front of the engine-house or anywhere near that locality?

A. The first that I remember of a well being driven there was when they attempted to concentrate 3 or 4 pipes three or four years ago to supply a fire-engine. The village fire department is now supplied entirely by driven wells, using a six-inch pipe. There are now distributed through the village from seven to ten of these wells, from which, on occasions of fire, the supply is inexhaustible. The supply for fire purposes for the village previously had been cisterns, taking their fill from rain water from the roofs.

Q. 50. State the size of Cortland village, and state whether or not it is the county seat of Cortland county.

A. About 6,000; it is the county seat.

(S'g'd) CHARLES C. TAYLOR.

Subscribed and sworn to before me this Aug. 16, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

Proceedings adjourned, on application of complainants, to Tuesday, August 17th, 1880, at 8 o'clock a. m., at same place.

2363 AUGUST 17, 1880—8 o'clock a. m.

Complainants appear pursuant to adjournment.

Hon. Milo Goodrich for complainants; defendants do not appear.

JOHN WHEELER, being duly sworn in the case of "William D. Andrews *et al. v.* George Leland *et al.*," and separately sworn again in the case of "William D. Andrews *et al. v.* George Leland," testified as follows:

Q. 1. State your name, age, and occupation and residence.

A. John Wheeler; my age, 72 on the 6th day of last May; my occupation was hotel-keeping for about 30 years; my residence is Cortland village at present and has been for the greater portion of my active life; after 1862 I resided in Solon, in this county, for about six years; I had some years previous to that also resided in Solon.

Q. 2. While residing in Solon did you hold any public position; if so, what?

A. I was an assessor; also highway commissioner; also town clerk in different years and for several years. I was supervisor of the town of Solon in all 7 years, and the last year I was supervisor there was in the year 1873.

Q. 3. How many years have you resided in Cortland since your last removal to your present residence here?

A. Since May last.

Q. 4. Did you formerly keep the "Cortland House" in this village; and, if so, for what number of years and down to what year?

A. About 13 years; down to, I think, 1864.

Q. 5. Has your residence always been within the county?

A. It has been.

Q. 6. For how many years have you been acquainted generally with the people in the several towns of the county?

A. I think for 30 or 35 years. I had kept a hotel in McGrawville and in Solon, and for 13, as I have stated here.

2364 Q. 7. Were you for the last 20 years acquainted generally with the people of the town of Preble, in this county?

A. I think I was.

Q. 8. Were you acquainted with Moses and William Tallman in Preble; and, if so, for how long were you acquainted with them?

A. I was pretty well acquainted with them for about 20 years.

Q. 9. While you were keeping the Cortland House were they guests at your house?

A. They were.

Q. 10. Now, Mr. Wheeler, down to the fall of 1861 did you ever know or hear of what has since then come to be known here in Cortland as the driven well?

A. No, sir; I never did.

Q. 11. Did you have knowledge in the fall of 1861 of certain experiments that were here made by Colonel Nelson W. Green in connection with the 76th Regiment of N. Y. Volunteers, quartered on the fair grounds here—experiments in which Byron C. Mudge had some connection?

A. I did have; I remember the circumstance.

Q. 12. Were you at that time, in the fall of 1861, keeping the Cortland House, with or without a partner; if with a partner, who was your partner?

A. Yes; I was keeping the Cortland House at that time and had a partner and his name was Julius A. Graham, now a resident here.

Q. 12½. Did you and he furnish on the fair grounds rations for the regiment here, under the pay of the Government, while the regiment remained here?

A. We did.

Q. 13. State whether, while you and your partner were thus furnishing rations for the regiment, there was a driven well put down there in your cook-room; and, if so, about what time, whether in the summer or fall of that year.

A. There was a driven well put down in our cook-room; I can't say whether it was in the late summer or early fall.

2365 Q. 14. Under whose directions was it put down?

A. I think Colonel Green had the supervision of it.

Q. 15. Do you know anything as to whether soldiers assisted in the work, under detail from the Colonel?

A. I do; they were. Mudge, the lieutenant of the regiment, was one, and other soldiers assisted; the men of the regiment did the work.

Q. 16. State how long they were at work in putting down the well.

A. Well, I think, according to my best recollection, they were about two days.

Q. 17. State whether you was there and saw the work done to any extent; if so, what extent.

A. I was probably there from one-half to two-thirds the time that they were putting down the well; I was back and forth from my hotel; I was there when they started the sheet-iron pipe.

Q. 18. What instrumentality did they use in putting down the well?

A. A long bar or rod of iron, round, was used, driving that down with a sledge, and at the same time trying to put down the sheet-iron tube.

Q. 19. Was this well put down before or after you and your partner commenced furnishing rations?

A. Afterwards; some time afterwards.

Q. 20. Do you know whether the roof boards of the cook-room where you were had to be removed in order to work the iron rod down?

A. I do; the rod was so long that it could not be put in the ground without its projecting above the roof.

Q. 21. What was the size of the sheet-iron tube that — used?

A. Well, I couldn't tell you exactly; I should think about two inches in diameter.

Q. 22. What was the size of the rod used?

A. Well, it might have been — inch or inch and a half in diameter.

Q. 23. Do you know whether they succeeded in getting the sheet-iron tube down to water? State, in your answer as to that, what you know and remember.

2366 A. I don't know whether they got it down to water; the sheet-iron pipe was in sections about two feet in length; they had difficulty in getting it down; they would bruise up, and whether they got it down to water I don't know.

Q. 24. What was the material and size of the pipe to which the pump was attached and which was inserted after the rod had been got down into water and was withdrawn?

A. It was lead; I should think it was about an inch or an inch and a quarter.

Q. 25. What sort of a well was it that was thus made, with reference to the supply of water it furnished?

A. It was a good well; you couldn't exhaust it by pumping.

Q. 26. Previous to the putting down of this well how was the regiment and mess-room furnished with water—from what source?

A. Well, I believe there were two wells on the fair ground, and I think we had to go outside to some neighbors, and I think we drew some from the creek; the regiment got their water from the same sources also.

Q. 27. The two wells on the fair ground you speak of—what description of wells were they?

A. I think they were dug wells, with pumps inserted.

Q. 28. How deep were they, do you think?

A. I think about 12 or 14 feet.

Q. 29. You speak of drawing water from the creek; also of going outside for water for the mess-room and the regiment, prior to putting down this driven well. Why did you thus go outside for water?

A. Well, they drawed so much from the two wells on the fair ground that they gave out; the water became muddy and the wells gave out; they didn't furnish sufficient water.

Q. 30. What was the fact as to this driven well furnishing sufficient water or not for the mess-room and regiment?

A. Well, I never knew it to fail but what there was water enough there.

2367 Q. 31. State whether or not it was, after it was put down, the sole source of supply of water for the regiment and mess-room while the regiment remained there.

A. Well, I should think it was; it was, as far as I know; it furnished better water.

Q. 32. Did it ever become exhausted, to your knowledge?

A. No, sir; I never saw any difference in it in respect to supplying an abundance of water; it never gave out.

Q. 33. Did you and your partner remove the cook-room and this driven well after the regiment left Cortland; and, if so, when was the removal made, and by who?

A. We did so; the regiment left in December, I think, and we removed it the spring following—I think in the month of April—I mean the mess-room and the well.

Q. 34. Which of you removed the well?

A. I did myself.

Q. 35. Did you take up the sheet-iron tube that had been put down?

A. I first took the pump off, then drew out the lead pipe.

Q. 36. State with what ease or difficulty you got the lead pipe out.

A. Well, I took hold of the lead pipe and thought I could pull it out with my hands, and found I could not; I then wound a trace chain around it, and then used a handspike or crowbar and got it out; it was quite solid in the ground.

Q. 37. What was the length of the lead pipe that went into the ground below the surface?

A. Well, I could not tell exactly, but I should think 12 or 14 feet; I should think 14 feet or quite.

Q. 38. State whether you drew up the sheet-iron pipe also, and what the length of that was as got up.

A. I drew that up; I think there were two lengths of it; well, there was three or four feet of it both together.

Q. 39. State whether the ground at the place where this driven well was put down was on a common level at the surface with the ground where the two dug wells you speak of were within the fair grounds.

2368 A. Well, I should think it was; yet the grounds descend a very little from the upper to the lower well, and this was between the two; the fair grounds are about on a common level.

Q. 40. Did you know about the affair of Colonel Green's shooting Captain McNett for an alleged mutiny and disobedience of orders within the camp of the regiment, shortly before the regiment left Cortland?

A. I knew of it, and from public notoriety.

Q. 41. Now, Mr. Wheeler, state generally, and as far as you know, the difficulties which it resulted in, in so far as they involved Colonel Green, and how long they continued here, according to your knowledge.

A. It caused a great deal of excitement, and, as I understood, caused his arrest by both the civil and military authorities; it awakened bitter feelings against Colonel Green, and in the surrounding country; soldiers were detailed as a guard about his house nights; they sent right off as soon as he shot McNett and got two cannons from the arsenal at Truxton, and loaded the cannons with gravel; that feeling continued and increased, I think, until down to the time of his trial on his indictment; his friends became reduced to a mere handful of persons about town. I heard he was burnt in effigy here. I suppose he was finally dismissed from the service, at what period I cannot tell, and came back to Cortland,

and then his associations were confined to a very few friends, and was not much about the streets. I saw but very little of him; when I did see him his appearance was more depressed and not as it had been formerly. I don't know how much he was absent from town after that.

Q. 42. How soon after the removal of the regiment from Cortland was it that you began to hear about the driven well here in Cortland?

A. I didn't hear much of it until Suggett began to put down wells and "Bill Winters" began to put down wells and Hunter; when that was I cannot tell; it was some years after the regiment left; I should think three or four years, or more.

An adjournment taken until 2 o'clock p. m., August 17th, 1880, at the same place.

2369 AUGUST 17, 1880—2 o'clock p. m.

Complainants appear by counsel, Hon. Milo Goodrich; defendants do not appear.

Examination of JOHN WHEELER continued:

Q. 43. Do you remember whether Colonel Green, during the putting down of this well on the fair grounds, came there once or more times or not while the work was going on?

A. Yes; I think he was there several times.

Q. 44. What, if anything, did he do or say in reference to the work when he came?

A. Well, he made suggestions how he thought it ought to be done, addressed sometimes to one, sometimes to another, sometimes to Mudge; Mudge and he talked about it some; they were directions in respect to the work of putting down the well; he told Mudge that the way he was doing it, with the sheet-iron tube, wouldn't amount to anything.

Q. 45. Calling your attention now to the sheet-iron tube, as you found it when you took it up the next spring after the regiment left Cortland, as you say, how much above the surface of the ground did the tube then stand?

A. Well, probably from six to eight inches.

(S'g'd) JOHN WHEELER.

Subscribed and sworn to before me this 17th day of August, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

2370 DE WITT C. MCGREGOR, being duly sworn in the case of William D. Andrews *et al.* v. George Leland *et al.*, and being again and separately duly sworn in the case of William D. Andrews *et al.* v. George Leland, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is De Witt C. McGregor; my age is 41 years; my residence is Dryden, Tompkins county, N. Y., and my occupation is that of a farmer.

Q. 2. Was you a soldier in the 76th Regiment of New York Volunteers from the time it was being organized here in Cortland, on the fair ground, under Colonel Nelson W. Green, and was you in the service with the regiment; and, if so, how long?

A. I was. I was in that regiment about two years and a half, and then enlisted in another regiment and served until after the close of the war. I served until November 22, 1865; I was sergeant in both the regiments to which I belonged.

Q. 3. Do you know anything about a driven well being put down in the cook-room of the 76th regiment here on the fair ground, where the regiment was quartered in the fall of 1861?

A. Yes, sir.

Q. 4. Did you know anything about previous experiments being made in putting down such a well near Col. Green's house, in Cortland?

A. Yes, sir.

Q. 5. How long was it after the one at the house was put down before the one in the cook-room of the regiment was put down?

A. Well, it wasn't a great while; it was in a day or two.

Q. 6. By whose direction and under whose supervision was it that this well at the fair grounds was put down?

A. Colonel Nelson W. Green.

Q. 7. Who did the work in putting it down?

2371 A. The soldiers; they were detailed to do the work under promise of pay from Col. Green. Mr. Mudge was also there and worked and directed and had charge of putting it down. I mean Byron Mudge.

Q. 8. Describe how the well was put down.

A. In the first place we had to take the roof off, so that we could use the maul so as to drive the iron rod; in the first place we took the roof off and built up a platform as high as the roof to stand on while driving the iron rod. I was one of the soldiers detailed to do the work and assisted throughout until it was completed.

Q. 9. What were the instruments used in putting down and making the well?

A. A sledge and iron rod, some sheet-iron joints of tubing; the lower end of the bar was pointed. We had a lead pipe attached to the pump.

Q. 10. State how the work was begun and how continued.

A. First by taking the roof off and then putting up some scaffolding so we could stand up as high as the rod to drive; we then took one of the joints of tubing, put the rod inside, and drove the rod and worked that down at the same time.

Q. 11. What was the size of the tubing and the iron rod?

A. I think the rod was inch and a quarter or inch and a half, the tubing just enough larger to slip nicely over; it might have been about two inches.

Q. 12. What was the length of the tubing?

A. About two feet.

Q. 13. And the size of the lead pipe?

A. About the size of the bar.

Q. 14. And had it a point at the end?

A. It had; I think a sharpened plug was inserted; the lower end of the lead pipe had holes in it for the influx of the water.

Q. 15. Now go on and describe how you succeeded in getting the sheet-iron tubing down with the rod into the ground.

2372 A. We drove the rod down a way inside the tubing and forced the tubing down with it by putting a block of wood on the tubing and pounding on the block of wood; we drove it down a way until the rod slanted off and went crooked at the bottom, and tried to get the sheet-iron tubing down further and could not; it had battered up at the lower end, and then we pulled up that section and put in another; we got that one down and riveted on another.

Q. 16. How far did you get down this other—this double section?

A. We got that down pretty near into the ground, and, I think, riveted on another section and got that down, I think, part way, so that about one-half of the upper section was above the surface of the ground; we couldn't get it any further down.

Q. 17. State whether in the lower end of the first section of tubing which you used and sought to get down there were any holes for the influx of water.

A. There were.

Q. 18. State, further, when that was taken up and thrown aside and a new one taken were there holes made in the lower end of that?

A. There were.

Q. 19. Was Colonel Green present at the commencement of the work?

A. I don't think he was.

Q. 20. Did he come while you were trying to get down these two or three sections riveted together and inquire how you were getting along, or in substance that?

A. I think he did.

Q. 21. What reply, if any, was made to him, and who by?

A. We told him we were stuck fast and couldn't get the tube any further.

Q. 22. Go on and state anything further that was said; what Colonel Green said, if anything.

A. He said the tubing was of no use, and to go on and to drive down the rod and put in the pipe and attach a pump, and you'll have water enough; that was the substance of what he said.

Q. 23. Who of the persons that were assisting or having charge of the work were present when Colonel Green came up and said this?

2373 A. Mr. Mudge was present, and the rest were soldiers who had been detailed.

Q. 24. You may state whether you did go on and drive down the rod into the water, as he directed.

A. We did.

Q. 25. And then what was done?

A. We then pulled out the rod after we had forced it down, and then forced the lead pipe down and attached the pump to the pipe and pumped it until water became clear.

Q. 26. What kind of a supply of water did the pump yield from the first?

A. We had all the water we wanted to use after it was pumped clear.

Q. 27. Did you get the iron, sheet-iron, tubing down any further; did you attempt it after Green directed, as you say he did?

A. We did not.

Q. 28. How far do you think did you get the sheet-iron tubing down; how many feet below the surface of the ground?

A. Perhaps four or five feet; from three to five feet.

Q. 29. Did you take that up or did you leave it in the ground?

A. We left it in the ground.

Q. 30. How much further down below this sheet-iron tubing do you think you drove this rod before you reached water?

A. Oh, perhaps six feet; it might not have been quite so far or it might have been a little further; the whole distance we drove from the surface of the ground before we struck water was eight to twelve feet; I can't say exactly.

Q. 31. When you inserted the pipe and pump how easily or with what difficulty was the lead pipe got down to water?

A. It went down with quite considerable difficulty; we had to force it down and it took quite a considerable time to work it down.

Q. 32. Was there any frame or fixture for holding the pump—I mean above the ground; and, if so, what?

2374 A. We made a hole in a dry-goods box and put the pipe up through it and then attached a pump to the pipe; afterwards a sink was built—I built it—and put the pump on it and fastened it to the sink by screws; the pump was an ordinary pitcher pump.

Adjourment taken to August 17th, 1880, at 6.30 o'clock p. m., at room No. 1, Messenger House.

AUGUST 17TH, 1880—6.30 o'clock p. m.

Complainants appear by William D. Andrews.

Examination of DEWITT C. MCGREGOR continued:

Q. 33. In what capacity was Byron Mudge acting in connection with the 76th regiment?

A. Acting as lieutenant.

Q. 34. Regarding the space between the iron pipe or tubing and the lead pipe, what, if anything, was done with regard to this space? Please explain.

A. It was first filled with earth, then water poured on it to make it compact, to hold the lead pipe solid, the earth piled up around it and pounded down.

Q. 35. Please state how the pump was attached to the lead pipe, if you know.

A. It was screwed fast to the top of the pipe.

Q. 36. What use was made of the water from this well?

A. To supply the general purposes of the regiment—for cooking purposes and cleaning of barracks, and for drinking purposes.

Q. 37. Previous to the making of this well where, if you know, was water procured for the purposes you have stated?

A. Mostly from places off from the fair grounds; there were two wells on the fair ground and they were of but little use on account of their being partly filled with mud, and the water considered unhealthy; it was not fit for drinking purposes.

2375 Q. 38. How and by whom was the water procured from these wells for the use of the cook-house or mess-room previous to the making of the driven well?

A. It was carried by soldiers detailed from said regiment.

Q. 39. And was the supply from this driven well at all times sufficient for the purposes you have enumerated?

A. It was.

Q. 40. What kind of wells were these from which the supply had been previously obtained?

A. Those outside of the grounds were dug and stoned, with pump in one and a windlass in the other; the wells on the fair grounds I never saw into; there were pumps in them.

Q. 41. Did you see the well you have spoken of at Green's house either made or used? Please state.

A. I saw it used. I pumped water from it myself.

Q. 42. Previous to seeing this driven well at Green's house had you ever before seen, used, or heard of a driven well?

A. No.

Q. 43. Whose invention was the well then conceded to be?

A. Colonel Nelson W. Green's.

Q. 44. Did you then, at or about that time, hear any other person's name mentioned in connection with these wells as inventor?

A. No.

Q. 45. And was it a matter considerably talked about among the officers and soldiers of the regiment?

A. Yes.

Q. 46. And was it a matter of considerable interest to the members of the regiment; and, if so, why?

A. It was, for the reason that the rebels had poisoned the springs and wells of water in the South where the Union soldiers would be apt to get it, and we would have a well that we could put down and pull up whenever we moved and no poison could be got in it.

Q. 47. Did you, at any time during the making of that fair ground
well or at any time while you were connected with the regi-
2376 ment previous to its leaving Cortland, hear Mr. Mudge claim
to have any connection with making the invention?

A. No.

Q. 48. Did you hear any other party or hear of any other party claiming that the well was the invention of Byron Mudge?

A. No.

Q. 49. Will you please state, if you know, about the difficulty

Colonel Green got into in consequence of his shooting Captain McNett, of his regiment, and what, if any, change was made in consequence thereof in the command of the regiment.

A. I saw the shooting of McNett by Colonel Nelson W. Green for the alleged disobedience of orders and attempting to cause mutiny in camp; on the account of Green shooting McNett the command was taken from him temporarily and commanded by General Wood.

Q. 50. How long did General Wood remain in command?

A. Perhaps from 20 to 30 days.

Q. 51. Was Colonel Green again reinstated in command, and by what authority?

A. Yes; he was tried by court martial at Albany, and acquitted of the charge brought against him on the ground that he had the authority for shooting McNett for the alleged charge of mutiny; restored to the command of his regiment by the Governor of the State of New York on or about the 1st of January, 1862.

Q. 52. After his reinstatement how long did he remain in command of the regiment and when did his command cease?

A. About two months; the last of February or the first of March.

Q. 53. What caused his command of the regiment to cease at that time?

A. The charges brought against him were for disobedience of orders, but never fully sustained; he was placed in confinement in his quarters at Fort Totten, D. C., and never thereafter commanded his regiment.

Q. 54. Do you know whether or not a paper was circulated
2377 among the officers of the regiment asking for his removal, and whether or not it was charged that he was insane, and therefore incompetent to command the regiment, and that it would not be safe to send the regiment to the front under his charge?

A. Yes; I heard officers say that there was such a paper in circulation, and that he was crazy.

Q. 55. How long, if you know, did Col. Green remain in and about Washington, and when did he return to Cortland?

A. About three months; perhaps not quite so long, and might be a little longer; can't state positive; returned to Cortland late spring or early summer.

Q. 56. Did or did not the shooting of McNett cause much excitement among the members of the regiment?

A. It did.

Q. 57. What effect did that shooting and the excitement which followed it, the temporary removal from his command, and the court-martial at Albany have upon Col. Green, down to the time of his arrival at Washington?

A. In my judgment it had the tendency to impair his mind and make him unfit to perform his duty as colonel of that regiment.

Q. 58. What, if any, additional effect did his arrest and deprivation of his command have upon him?

A. He became more excitable and nervous and it was thereafter his constant talk.

Q. 59. When, during the next two or three years, did you again meet Col. Green?

A. I met him at his home in Cortland in the summer of 1863, and again in the summer of 1864; I came home on furlough in the summer of 1863; during my stay at home came to Cortland for the purpose of visiting Col. Green; also came to Cortland when home on furlough in 1864 to visit him again.

Q. 60. Please state in what condition mentally did you find Col. Green at these times when you visited him; please state any circumstances that impressed you and on which you now found your answer to this question.

2378 & 2379 A. I found him very different from when I first became acquainted with him, before any of his above-mentioned trouble had taken place; he was very nervous and excitable and his mind seemed to be on nothing but the above-stated trouble.

Q. 61. What, if any, conversation, if you recollect, did you have with Colonel Green, and can you remember any of his remarks or actions that then particularly impressed you?

A. Nothing more, except he would have command of his old regiment yet; the officers had stole his command from him and he was bound to have it back, and he was sure that the President would reinstate him, and he would show those cowardly officers that his men would fight better under him, after they had slunk out of their duty as officers, and the most of them resigned.

Q. 62. Did he appear, when you saw him at these last two times you have mentioned, to have any business, or to be in condition to transact any ordinary business? Please state how this was.

A. To the best of my judgment I wouldn't call him fit to do business.

Q. 63. Whereabouts in Cortland did Colonel Green reside at the times when you visited him while home on furloughs?

A. Near the fair ground and nearly opposite the old woolen factory, in the same house where he lived while the regiment was in camp here.

(S'g'd) DEWITT C. McGREGOR.

Subscribed and sworn to before me this 17th day of August, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

2380 Adjournment taken to August 18th, 1880, at 10 o'clock a. m., at office of notary, F. Hatch.

AUGUST 18TH—10 o'clock a. m.

Case called.

Complainants appear by William D. Andrews; defendants do not appear.

MERTON M. WATERS, being duly sworn in the case of "William D. Andrews *et al v.* George Leland *et al.*" and again separately sworn in the case of "William D. Andrews *et al v.* George Leland," testified as follows:

Q. 1. Please give you name, age, residence, and occupation.

A. My name is M. M. Waters; my age is 50 years; I reside in Cortland village, N. Y.; my occupation is attorney and counsellor-at-law.

Q. 2. How long have you resided in this county and the town of Cortlandville and village of Cortland?

A. I have resided in this county all my life and in this village ever since the year 1857.

Q. 3. How long have you practised law in this village?

A. Ever since the year 1857.

Q. 4. Do you know Colonel N. W. Green, formerly of this village, and how long have you known him?

A. I do; I have known him from 16 to 20 years; I can't give the date nearer.

Q. 5. How intimately have you known him during any portion of that time?

A. He was my neighbor for 10 or 12 years, and I was engaged as his attorney during a period of several years—from 1862 to 1866; during that period he was constantly in the habit of coming to my office and discussing his cases.

Q. 6. What cases do you allude to? Please state as much in detail as you can.

A. Among others, he was indicted for the shooting of a man
named McNett; he also brought an action in 1863 against
2381 a Reverend Mr. Meachem for libel and slander; an action
was also brought against him before Esquire Andrews, a justice of Homer; another, before a justice of the town of Solon; another, before Justice Brewer, of this village; I think all these, except the action for slander and libel, grew out of matters connected with the regiment of which he was colonel and at one time stationed here.

Q. 7. Please state what regiment you refer to and at what time it was stationed here.

A. The regiment was the 76th New York Volunteers, stationed here about December, 1861; the regiment was organized here about that period.

Q. 8. Were you employed by Colonel Green in defending him in the suits to which you refer?

A. I was.

Q. 9. Did you or not have the charge of those suits and were you the attorney in the case?

A. I was.

Q. 10. Had you any associate in business at that time; and, if so, who?

A. I had a partner named F. D. Wright; I think that partnership began in 1862 and continued about four years; I am not certain as to this time.

Q. 11. Will you please give the origin and animus of the suits you have named, particularly the McNett and Meachem suits?

A. In about December, 1861, the regiment being stationed at the fair grounds in this place, with Colonel Green as its acting colonel and McNett as subordinate, and both of them connected with the Episcopal church of this place, of which the Rev. Mr. Meachem was pastor, a strife seemed to grow up between them as to a position in the regiment; McNett, as I understood it and as Green seemed to believe, was plotting and conspiring to obtain Colonel Green's removal from his position as colonel and to obtain that position for himself; in this it was supposed that Meachem took part with McNett; McNett, for some act of insubordination, was put under arrest and while so under arrest refused to go back from his tent door, where he was standing, as commanded to do by the
2382 Colonel, the tent door being surrounded by soldiers in
sympathy with McNett, and, as Green claimed, imminent danger of immediate mutiny required obedience. For this refusal, obstinately persisted in, Green fired his pistol in the direction of McNett and repeated his command, which being disobeyed he fired again, and the ball struck McNett on his chin, I believe. For this act the indictment was procured, and the excitement in the community ran very high, almost every one taking sides on one side or the other. During the continuance of this excitement Green found, as he claimed, that Mr. Meachem was actively circulating various reports reflecting on him as a churchman, and in 1863 this action for slander was commenced for the purpose of obtaining an examination, among other things, as the foundation of an action of libel. The examination was obtained and disclosed the fact that Mr. Meachem had been circulating a defamatory letter purporting to have been written by a former pastor of Colonel Green. After this information was obtained the action of slander was, I think, either discontinued or the pleadings were amended, and the action became an action of libel and slander. One prominent object of these actions was to bring the facts before the community, so as to correct the public mind in regard to Green's intentions and conduct, as we believed it extremely dangerous to try the indictment until the false position in which Green had been placed was shown. These actions ran along together until the term at which the indictment was tried, at which term the civil action was on the calendar for trial, and the jury having disagreed on the trial of the indictment the friends of Meachem, the district attorney, and the counsel of N. W. Green consented that a *nolle prosequi* should be entered upon the indictment and the civil action discontinued, which was accordingly done; my recollection is that was at the May term of 1866.

Q. 12. Who was the recognized leader in getting up and organizing the 76th regiment?

A. Nelson W. Green.

Q. 13. Was that organization preceded by the drilling of 2383 persons preparatory to such organization? And, if you say it was, please state under whose direction such drillings and preparations took place.

A. It was; under N. W. Green.

Q. 14. What was there in Colonel Green's position or previous education that designated him as peculiarly fitted for that position?

A. He was supposed to be the only man amongst us who had a West Point education, and his enthusiasm and loyalty and at that time great popularity as a citizen seemed to give him the place by universal consent.

Q. 15. Will you please state at about what time the 76th regiment left Cortland, whether Colonel Green accompanied it, how long he remained with it, and under what circumstances, and about what time his connection with the regiment ceased, and at about what time he returned to Cortland after his connection with the regiment had ceased?

A. I can't give exact dates, but my recollection is that the regiment left in December, 1861; that he remained away most of the time until about June, 1862; that he was discharged in June, 1862; he was discharged by an order of the adjutant general, as I understood it.

Q. 16. As his attorney, were these matters constantly and continually being brought up and referred to by and between yourself and Colonel Green in such a manner that you had a thorough and perfect knowledge of all these law matters and the difficulties, dissensions, and complications with which Colonel Green was in consequence surrounded?

A. I obtained a very full knowledge of the matters referred to, not only as his attorney in the litigations mentioned, but also by counselling with him and advising him what course to pursue in obtaining a reinstatement to the position from which he was removed.

Q. 17. Please state what effect these suits, complications, and difficulties appeared to have upon the character and general actions of Colonel Green, and whether if any and, if so, what change occurred in his social habits.

A. Before these dates I had known him as a quiet, easy, social, and gentlemanly man. Afterwards these matters seemed to 2384 have absorbed his attention and to have engaged his mind almost constantly, and so much so as to almost utterly exclude other topics from his conversation.

Q. 18. What, if any, business was Colonel Green engaged in from the time of his return here in 1862 down to the time of his trial under the indictment in 1866?

A. None that I know of.

Q. 19. Did he or not devote his time and attention to matters pertaining to these suits, difficulties, and complications and in efforts to obtain reinstatement in the army?

A. As I understand it, he did chiefly.

Q. 20. Can you give some particulars in regard to the devotion of his time and attention to those matters?

A. At the time of the shooting a large number of the soldiers of the regiment were upon the fair grounds and others were supposed to know many facts bearing upon the mutiny which Green claimed was imminent at that time. These soldiers went away with the regiment and by changes in the army were scattered widely, and their evidence was deemed material on the trial of the indictment, and, as we dare not try the indictment while the public mind was in so unhealthy a state, we found it necessary at each term, not only to prepare for making an effort to postpone, but also to prepare against the danger of having the postponement denied, and to be in virtual readiness for trial at each term. This involved the necessity of keeping track of the witnesses and of keeping in readiness to obtain their attendance at any term. This work was almost wholly cast upon the Colonel. Commissions were obtained and sent to the army by at least two sets of commissioners, I think, and great difficulty was found both in getting to the soldiers and keeping posted as to their whereabouts. Among the charges which Green claimed that Mr. Meachem was circulating, which gave him much trouble, was the charge of insanity. This charge seemed to present one of the greatest obstacles to his reinstatement by its becoming fixed, or rather by the danger of its becoming fixed, in the mind of
his superior officers that he was insane, and Green's inten-
2385 sity and constant attention and seeming engrossment with
his troubles seemed a danger of that idea becoming fixed in the minds of the people of his vicinity; and among the questions likely to arise upon his trial was the question as to what the military law was as to his justification for the act of shooting McNett as an act of necessary discipline. This also involved the question as to how far and to what extent the opinion of military officers as experts could be given in evidence on the trial. Upon these questions of military law I was not possessed of either the knowledge of the law or of the volumes of the law from which the questions could be determined; consequently the Colonel took it upon himself to consult such libraries as he saw fit in other parts of the State to make extracts therefrom and to bring the extracts to me for my examination. He had no money to pay me for doing this work, and I consequently left that part of the work mostly for him to do, and he did it very well. At the trial experts were called from the city of New York, and their opinions were allowed, and I believe it was ruled that the military law would govern. In his efforts to get reinstated he also made a voluminous preparation of facts and precedents, from which I prepared a brief, which he procured to be printed and presented in person to the President of the United States, as he informed me. These are some of the particulars which I am now able to recall in answer to your question.

Adjournment taken, at request and on application of complainants, to August 18, 1880, at 4 o'clock p. m., at same place.

AUGUST 18, 1880—4 o'clock p. m.

Case called; complainants appear by William D. Andrews; defendants do not appear.

Q. 21. Please state, if you know, to what extent Colonel Green gave his time and attention to the raising and organizing of the 76th regiment.

2386 A. I cannot state accurately, but, so far as I observed, I should say almost exclusively until December.

Q. 22. To what extent did the excitement consequent upon the shooting of McNett take possession of the community?

A. To a very great extent; the feeling was very bitter and intense both among his friends and opponents.

Q. 23. What can you say as to the extent of the charges and as to the expression of feeling in the community as to Colonel Green's sanity?

A. The charge became very generally circulated, and the unusual character of the incidents connected with the charges led a great many fair-minded people to fear that the charge might be true, I think.

Q. 24. As to the church difficulty, what can you say in regard to the feeling that was generated in the church on account of these difficulties?

A. As to that difficulty, I had very little personal knowledge outside of what occurred at my office; I know he was giving attention to it during the whole period intervening between the commencement of the slander case and the trial of the indictment; that contest seemed very bitter and very intense, so far as it came to my knowledge.

Q. 25. Please state to what extent Colonel Green's time appeared to be given to matters connected with the suits you have mentioned, with his church difficulties, and his efforts to obtain reinstatement in the army.

A. His time seemed to be almost wholly devoted to his own particular grievances connected with those matters, so much so as to render it almost impossible to converse with him any length of time without his making his grievances the subject of conversation in spite of you; upon these subjects he also became excessively irritable and suspicious, rendering open ruptures between himself and counsel a frequent occurrence, and passionate words were the frequent result of those interviews, when he made his case and its management the subject of our interviews; we, however, so thoroughly believed him right in his intentions in what he said and did
2387 that we attributed his conduct to the effect of his persecutions, and continued his defence notwithstanding.

Q. 26. Please give the location of your own and Colonel Green's residence during those years, in their relation to each other and to the central or business portion of the village.

A. My office was at the corner of Main and Court streets, in the central portion of the village; his residence was on North Main street and between my residence and my office, so that I passed his door as often as once every day during the period I have mentioned—I mean once a day on the average.

Q. 27. What, if anything, do you know concerning Colonel Green's efforts to obtain a patent during the winter of 1865 and 1866? Please state as fully as you can.

A. There was a time—I cannot give the date; I think it was in the fall or winter preceding the trial of the indictment—when he and I had a conversation on the subject of his application and taking steps, in hostility to Mr. Mudge, to obtain a patent, claiming, as I remember it, that Mr. Mudge was interfering with Green's invention relative to the method of sinking wells; I advised him that, in my judgment, his liberty was of more consequence to him and his family than any profits that could arise to him out of his invention; as Mr. Mudge and his friends were very numerous and a popular party, he could not afford to add their weight to his opponents at that particular time; that the effect would be to make them his enemies, many of whom were now his friends, and I advised him to let the invention alone until the indictment was tried.

(S'g'd) M. M. WATERS.

Subscribed and sworn to before me this 23d day of August, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

2388 August 20th, 1880, 1.30 o'clock p. m.—Complainants appear by William D. Andrews; defendants do not appear.

STEPHEN BREWER, being duly sworn in the case of "William D. Andrews *et al. v.* George Leland *et al.*," and again being duly sworn separately in the case of "William D. Andrews *et al. v.* George Leland," testified as follows:

Q. 1. Please give your name, age, residence, and occupation.

A. Stephen Brewer; my age is 58; I reside in Ithaca; my business is a leather dealer.

Q. 2. How long have you resided in Ithaca, and where had you previously resided, and how long?

A. I have resided there about one year, and formerly resided in Cortland, and for between 30 and 40 years.

Q. 3. Were you formerly a justice of the peace in Cortland; and, if you were, at what times?

A. I was for 12 years prior to 1866; for 12 successive years prior to 1866.

2389 Q. 4. Where was your office situated during those years?

A. It was situated on Main street most of the time opposite the county clerk's office, between Court street and River street.

Q. 5. Were you examined as a witness on behalf of the defendant in a case brought in the United States circuit court for the northern district of New York by William D. Andrews and others against Charles M. Titus, here in Cortland, on or about August 10, 1878?

A. I was.

Q. 6. And was that case, if you know, a suit brought against said Titus for infringement on the driven-well patent of N. W. Green?

A. It was.

Q. 7. Are you acquainted with Wm. D. Andrews, George H. Andrews, and Nelson W. Green, complainants in that suit, and with Charles M. Titus, the defendant in that suit? And, if you say you are, please state how long you have been acquainted with the persons named.

A. I am, and have been acquainted with the complainants, Messrs. Andrews, since 1876, and with the complainant Green since about 1857 or 1858, and with the defendant Titus since 1878.

Q. 8. How well were you acquainted with Nelson W. Green previous to the breaking out of the rebellion and up to the time he left Cortland?

A. Well; quite well. I was not intimate with him, though I knew him quite well up to the time he left Cortland, which was about 1868.

Q. 9. Are you in any way interested as inventor or owner of any patent upon or in connection with what is known as the driven well?

A. I am part owner of three different patents connected with this driven well.

Q. 10. And have you at any time been engaged in making driven wells? And, if you say you have, please state in what years.

A. I have, during all the years, more or less, from 1866 to 1875.

2390 Q. 11. Are you the inventor of the improvements represented by the three patents of which you say you are part owner?

A. I am the inventor of one of them and joint patentee of all three.

Q. 12. When did you first see a driven well made?

A. In 1865 or 1866; I think in 1865; I fix the date by the date of my first patent.

Q. 13. Please state, if you know, where Colonel N. W. Green resided from 1862 until about the time he left Cortland?

A. In Cortland; I think somewhat over one-half of a mile from the center of the village north, on the road to Homer, and on what is known as the Etz place.

Q. 14. Where did you make driven wells during the years you have mentioned, from 1866 to 1875? Please state generally.

A. I made them in New York State and in England.

Q. 15. How many driven wells did you make, assist in making, or direct to be made in England?

A. Some 25 or 30, I should think.

Q. 16. Will you please give the location of those wells or any portion of them, and say for whom and for what purpose they were severally made?

A. Some were made in London, some at Chatham, some at Manchester, some at Meacham, some at Hendon, some at Hackney, some near Windsor, and at some other places that I now can't remember the names of; I don't remember the names now of the persons for whom they were made, excepting one, and that was a certain Mr. Dabbs some were made for domestic purposes; one was made for brick-yard purposes—making brick; some for farm purposes; one was made for furnishing water for steam engine; many of them were made simply as illustrations of what the driven well would do; some of these wells were made for the English government; I made some wells at Chatham, which is the great naval engineering station, under special directions of Colonel Simmons, the commandant of the station.

Q. 17. What business took you to England?

A. It was for the purpose of introducing this well and selling the patents.

2391 Q. 18. In what year was it that you visited England for the purpose of selling these patents?

A. In 1867.

Q. 19. In what year, if you are able now to state, was your American patent granted?

A. In 1866, January 9th.

Q. 20. Had you any interest in any other patent in England in connection with the driven well? And, if so, please state what patent.

A. An English patent was granted for a combination of my 1866 patent and the Mudge patent.

Q. 21. Were any other parties interested with you in that English patent; and, if so, who?

A. Yes; H. J. Messenger and Byron Mudge.

Q. 22. Did any person accompany you to England to assist you in disposing of this patent; and, if so, who?

A. Yes; Reed Peck.

Q. 23. Had he any interest, or how was he connected with the business?

A. He went as an employee of the owners of the patent.

Q. 24. Did you make any other wells for the English government than those you have spoken of as having made at Chatham? And, if so, please state where and who was present when the wells were made.

A. I did at Aldershot; the commanding officer and several subordinate officers of the military station at Aldershot were present.

Q. 25. Will you please give a short account of this enterprise in England and state the main object you had in view in putting down the wells, and particularly those at the naval and military stations?

A. The primary object of making these wells in England was to illustrate their value and thus effect a sale of our patent; the English government that year were fitting out their expedition against King Theodore, of Abyssinia, called the Abyssinian expedition; we supposed that the wells would prove useful in the African country in that expedition, and so brought them to the notice of the British admiralty, and it was under government direction that we
2392 made the wells at Chatham and Aldershot; we succeeded in
making good wells, and Colonel Simmons, the commandant at Chatham, reported to the government favorably in regard to the wells, and consequently we effected the sale of a sufficient number of wells for that expedition; I subsequently learned from the public

prints that the wells were very useful in that expedition; I think we sold fifty of those wells to them for the Abyssinian expedition.

Q. 26. Now, please state how those wells were made. Please give such a description as would enable another person by following your description to make such a well.

A. We took inch and a quarter gas pipe pointed and perforated at one end, the perforations extending up the pipe about twenty inches. We drove it down into the ground until we reached water, and into the water, say, four or five feet, attached a common suction pump to the top, and the well was completed. We used no rod before driving the pipe. We never used a rod in England; in no instance in England. We never met with any soil that contained large stones. The wells at Chatham were made in a chalk formation, and most of the other soils that we worked in were composed of sand, gravel, and clay.

Q. 27. Did the wells you made in the chalk formation yield a good supply of water; and of what character, as to clearness and potability?

A. They yielded an abundant supply of water; were inexhaustible; the wells cleared up quite slowly, but the water finally became clear by pumping, and was then of an excellent quality; when we first began to pump these wells in the chalk the water was white and of about the consistency of cream, and from that time went through successive stages until clear water was pumped.

Q. 28. How was the invention characterized and how was it treated by the military and naval officers in regard to its being or not a new and before unknown method of procuring water from the earth?

A. They called it a "rum" invention, meaning thereby an ingenious invention; they regarded it as entirely new, and seemed greatly surprised to see such an abundance of water obtained by such simple means.

2393 Q. 29. Did you, among all the naval and military officers with whom you came in contact, hear any one claim to have ever seen, heard, or read of a similar method of procuring water from the earth?

A. I did not.

Q. 30. By what name was the well there known?

A. The American tube well.

Q. 31. Who, if any one, in England became interested with you in introducing the invention, and in what capacity?

A. James L. Norton we made our agent for the introduction of the well into the country generally, and subsequently, after our return to this country, we sold him the patent.

Q. 32. Was this agent of yours, J. L. Norton, the same party whose name is connected with the furnishing of driven wells for the use of the army in Abyssinia and whose name gave title as published in various papers to them as "Norton's American tube wells?"

A. He was.

Q. 33. You have described the method by which the wells were made in England; does or does not that description apply to driven wells as now and for a dozen years past made here in Cortland and, so far as you know, in the United States generally?

A. It does.

Q. 34. And is it or not a fact that all driven wells, when finished, consist of one pipe, which forms the body of the well, and through and from which, by means of a pump attached to its upper end by an air-tight connection, water is drawn directly from the earth, no space intervening between the tube forming the body of the well and the earth surrounding it?

A. It is.

Q. 35. And does it or does it not make any practical difference whether the earth surrounding that tube or body of the well is in direct contact above the surface of the water in the earth?

A. It does not.

Q. 36. Did you or not obtain any other patent on the driven well in any European country; and, if so, where?

2394 A. I did; in France.

Q. 37. Is it necessary or not for a party taking out a patent in England or France to be the inventor of the device or process for which the patent is asked for?

A. I think not.

Q. 38. Were not your patents taken out by and in the name of other parties, both in England and France?

A. I think they were.

Q. 39. Did you visit France, and did you put down any wells there, or were any wells there put down in accordance with your patent by any person for you or by your direction or request? Please state fully.

A. I was in France with our English agent, Mr. J. L. Norton (he was also our French agent), and he put down a well or wells at St. Cloud for the emperor; the emperor was present, as I understood from our agent; one of the emperor's servants had his fingers smashed off under the driver. I was to have accompanied our agent there at the putting down of that well, but I was putting up at a part of the city somewhat remote from where our agent was stopping and had inadvertently given the wrong street or the wrong name to the street where I was stopping, consequently our agent was unable to find me in time to accompany him; I missed it in that way.

Q. 40. For what purpose and with what result was this well made?

A. By appointment—general appointment; it was more particularly to bring it to the attention of the Government, the same as in England; it was brought to the attention of the emperor through his secret agent in London, residing in London, and the wells were put down forthe purpose of bringing— before the French government especially and the public generally; the result was that our agent finally sold the French patent.

Q. 41. Please state how far from London and in what direction and how far from each other the wells were which you put down in England.

A. With the exception of the wells at Manchester, which was about

100 miles from London, and the wells at Chatham, about 80 miles
from London, of which Manchester is north from London and
2395 Chatham, I don't know the direction; the rest of the wells
were made within a radius of 30 miles around London in
various directions.

Q. 42. Please state what kind of wells you found in use in England, either for domestic, manufacturing, farm, fire, or other purposes.

A. The wells were mostly—all I saw—dug and stoned up; I saw some artesian wells—deep-flowing wells; there were quite a good many drilled-pipe wells, made like the oil wells substantially; they were pumped by a pipe put down inside and a pump attached to it.

Q. 43. Did you see, hear, or read of any driven wells such as you were engaged in making anywhere in England during your sojourn there, other than those made by yourself or by your direction?

A. I did not see, hear, or read of any such well ever being in existence in England, but a Londoner told me he had heard of one being made—having been made—in London.

Q. 44. How did the people generally, where you put down these wells, as you have stated, treat this method of procuring water, as to its being new and useful?

A. They looked upon it as a new method; they generally marvelled that so full a supply of water could be obtained in so simple a manner.

Q. 45. Please state as to the number of people who visited the wells while in making or operation and whether any and, if so, what public personages were present during the making of those wells or their use.

A. Oh, at Aldershot there were a good many persons present—a good
many officers present of the station—and the same is true of Chat-
ham, a good many persons present of the marines; near Windsor
the queen's plumber came over and saw us put down a well; in put-
ting a well down at Hackney special invitation had been given to
the representatives of several of the leading firms in London who
dealt in pumps and other well gear to be present and witness the
operation; we already had a well put down at Hackney, which had
been in operation two or three weeks, used in furnishing water
to make mortar for building purposes; these representa-
2396 tives invited were present; we had our apparatus all ready,
and when they arrived, after examining the well, we requested
them to time us, and we would take up the well and put it down
again in their presence; we took it up and put it down again sev-
eral feet from where it before stood and finished it and obtained clear
water all in the space of one hour. The gentlemen present seemed
to view it with great surprise at the quickness with which it was
done and to see it furnish an inexhaustible supply of water, as it
did; many expressed themselves and all seemed to regard it as a
new thing.

Q. 46. Will you please give some particulars in regard to the quality and supply of the various domestic dug wells you found in existence and use in those parts of England with which you became conversant?

A. I can say that I made driven wells and got good, wholesome water where, upon the same premises, dug wells contained water of an offensive odor and not fit for use, and that is true of more than one place.

Adjournment taken to 7.30 o'clock p. m., August 20th, 1880, at room No. 1, Messenger House.

AUGUST 20, 1880—7.30 o'clock p. m.

Complainants appear by William D. Andrews; defendants do not appear.

Examination of STEPHEN BREWER continued:

Q. 47. Where in Manchester or for what purpose were the driven wells you have spoken of put down?

A. An agricultural fair was being held, and they were put down on the fair ground simply to illustrate the well.

Q. 48. Please say what, if any, notice the well there attracted and whether any allusion was made to it in the newspapers; and, if so, what.

A. An account of the matter appeared in the next morning's Man-
chester Guardian, a quite prominent paper in England, and
2397 was thence copied into the London Times, and, I think, into
other papers; it was, I think, spoken of as an American in-
vention; the paper spoken of mentioned the brief time in which
they were made and the abundance of water they furnished.

Q. 49. Did you hear anybody there claim or hear of anybody claiming ever before to have seen such a well or water procured from the earth by such a method?

A. I did not.

Q. 50. Have you any information concerning the extent to which driven wells have gone into use in England since you left there? And, if so, please state it.

A. I have heard that they were used there quite considerably.

Q. 51. Did you dispose of your English patent, and who to?

A. I did; to J. L. Norton.

Q. 52. And did Mr. Norton continue in the business?

A. He did, and was in the business the last I knew anything about it.

Q. 53. Have you ever seen any accounts in the English papers since you returned from England in relation to these driven wells? And, if so, please state the nature of it.

A. I have seen an account of them in the London Illustrated News, accompanied with a cut representing the wells in the process of construction; I have also seen an article in the London Times, I think it was written by a lieutenant of engineers, as to the use of the well in the Abyssinian campaign of 1867; this account was very favorable to the well and spoke of it as very useful in that campaign.

Q. 54. Where was the first driven well made that you ever heard of, and when?

A. It was here in Cortland, in 1861, if the well made upon Green's premises at that time could be called a driven well.

Q. 55. When was the first driven well of which you have personal knowledge, and where?

A. It was some time in 1865; it was made on my premises, here in Cortland.

Q. 56. Who, do you understand, made the first well you have spoken of in 1861?

2398 A. Some members of the 76th regiment, that was being then gotten up here in Cortland.

Q. 57. Will you please state what you have found to be some of the advantages of the driven well?

A. It is less expensive than other wells. Better water can usually be obtained than from the dug well, as it can be got from greater depth. If the first water reached should be unsatisfactory you can go lower and find water that is better sometimes. I have known that to be the case sometimes. The driven well, if properly put down, will not give out in a dry time. It can be put down in houses and other buildings, which is sometimes a great convenience. Surface drainage cannot get into it and pollute the water. Animals and other sources of impurity cannot get into it, and children can't fall into it and get drowned.

Q. 58. When in England did you or did you not always claim the driven well to be a new and valuable invention; and, if you say you did, was that claim ever disputed?

A. I did and it was not.

Q. 59. Did you understand concerning the first driven well you have spoken of, in 1861, that its construction was suggested by Colonel N. W. Green?

A. I did.

Q. 60. And was Colonel Green in command of the 76th regiment, and were Byron Mudge and James C. Carmichael acting as subordinate officers of that regiment?

A. They were.

Q. 61. Had you knowledge of the shooting of Captain McNett, of the 76th regiment, by Colonel Green?

A. I had by report, not personally.

Q. 62. Did that occurrence, if you know, create a great excitement in Cortland and vicinity, and were there or not two parties formed in the community, who took sides for or against Colonel Green in the matter?

A. It did, and there were.

Q. 63. And did Colonel Green become involved in church difficul-
ties and various suits growing out of his connection with the
2399 regiment and his difficulty with Captain McNett, and was he
indicted for the shooting of Captain McNett?

A. He was indicted for that shooting, as was generally known, I believe, and I think he became involved in a civil action growing out of it, I believe, and I heard that a difficulty with his church grew out of it also.

Q. 64. Please state to what a degree of excitement and bitterness these difficulties gave rise in this community.

A. The excitement ran very high.

Q. 65. And what effect, if you know, did this controversy and excitement exert upon Colonel Green?

A. I have no personal knowledge of his condition as to his mind. I saw Colonel Green, but not very often, as I lived at one end of town and he at another, but I should say that the circumstances in which Colonel Green was placed during that affair must have produced a very marked excitement in his mind.

Q. 66. Was not your office during the years 1862 to 1866 on Main street between Colonel Green's residence and the post office?

A. It was.

(S'g'd) STEPHEN BREWER.

Subscribed and sworn to before me this 20th day of August, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

2400 11.30 O'CLOCK A. M.

Complainants appear by Hon. Milo Goodrich; defendants do not appear.

2401 MATTHIAS VAN HOESEN, being duly sworn in the case of "William D. Andrews *et al. v.* George Leland *et al.*," and again separately sworn in the case of "William D. Andrews *et al. v.* George Leland," testified as follows:

Q. 1. Please state your name, age, place of residence, and occupation.

A. My name is Matthias Van Hoesen; my age is 75 years; I reside in Preble, Cortland county, New York; I am a farmer, say, by occupation.

Q. 2. Please state how long you have resided in Preble.

A. Well, over 74 years.

Q. 3. What, if any, positions of public trust have you held during this period and for how long?

A. I think I have been justice of the peace in the town of Preble for 18 years. I have been supervisor of the town of Preble for, I think, 17 years. I have been postmaster there for, I think, 3 years.

Q. 4. Which, if any, of these positions are you holding at the present time?

A. Supervisor and justice of the peace of that town.

Q. 5. Have you or not been intimately acquainted with the affairs and people of the town of Preble; and, if so, for how long?

A. I have been and for about 50 years.

Q. 6. Do you and did you know Moses Tallman, also his brother, William Tallman?

A. I did.

Q. 7. Is William Tallman dead; if so, about how long ago did he die?

A. Yes; he is dead. I should think he died about two years ago.

Q. 8. Was he a resident in Preble formerly?

A. Yes, sir.

Q. 9. What was his occupation while there and how near to you did he live?

A. His occupation was farming, and he was a mill owner; he resided about two miles from me.

Q. 10. How well and how long did you know him while he was living there in Preble?

A. I knew him intimately all the while he lived there, say about ten years; while he lived there, and that was about ten years.

2402 Q. 11. Is his brother, Moses Tallman, still living in Preble?

A. Yes, sir.

Q. 12. How long and how well have you known him, Moses Tallman?

A. I have known him intimately a matter of 25 years.

Q. 13. What was his occupation?

A. Farming.

Q. 14. Were his and his brother William's farm near together there in Preble?

A. Only a road between them.

Q. 15. Did you have knowledge of the fact that Wm. Tallman while living there in Preble erected and continued in use for some time a windmill for pumping water from a well for supplying water for his stock on his farm?

A. Yes.

Q. 16. When, according to your recollection, was it erected—what year?

A. About 1862 or 1863, I should think. I should say 1861 or 1862.

Q. 17. How long was it continued in use?

A. To the best of my recollection, about two years; it might not have been so long or it might have been longer.

Q. 18. While in use did you ever go to it; and, if so, under what circumstances?

A. I think I went there once by invitation of William Tallman while the windmill was in use to see how the windmill operated.

Q. 19. Is the windmill and well in use now, do you know?

A. The windmill is not in use, and I don't know that the well is.

Q. 20. Do you know whether the well has been filled up and its use discontinued, and for how many years?

A. Yes; for five or six years or more, I should think. The windmill has been discontinued ever since before 1870, I think; it rotted down.

Q. 21. How intimately acquainted have you been during
2403 your life with the people and affairs of Cortland village, the
county seat of Cortland county, New York, and for how long?

A. I have had some acquaintance for, say, 45 years. I have been here frequently on business. I have attended the board of supervisors here and have been acquainted with the most of business men in Cortland village during that time.

Q. 22. Was you familiar with the town of Cortlandville or Cortland at the time of the organization and drilling of the Seventy-sixth regiment here quartered upon the fair ground?

A. I was, and was on the war committee.

Adjournment taken to August 27th, 1880, at 2 o'clock p. m., at same place.

AUGUST 27TH, 1880—2 o'clock p. m.

Complainants appear by Hon. Milo Goodrich; defendants do not appear.

Examination of MATTHIAS VAN HOESEN continued:

Q. 23. Was that a war committee of the county or of a town or towns?

A. Of the county; of the county of Cortland, appointed by the board of supervisors.

Q. 24. How long was you a member of it?

A. During the war of the rebellion; the war closed in the spring, and I think we closed up in the fall; about four years.

Q. 25. State whether you remember that in the fall of 1861 some experiments were said to be made here by Colonel Green and his officers which resulted in the new method of well making here, since known as the driven well.

A. Yes.

Q. 26. What is that method of making a well? State briefly.

2404 A. Well, it is by inserting a pipe into the earth with perforations at the bottom and drawing up the water by means of a pump; sometimes they drive a rod first, which is withdrawn, and the pipe inserted with the earth compact about it.

Q. 27. Do you know anything as to the use of such well?

A. I do.

Q. 28. Please state what.

A. I have one on my premises that I should think was put down some six years ago. The water is pure and has never failed. I have used it ever since.

Q. 29. Prior to the fall of 1861, have you any knowledge or information that any such process of well making was ever known or heard of here in Cortland or in Preble, or elsewhere?

A. I never did.

Q. 30. You speak of having known that William Tallman had erected a windmill for pumping water from a well, and of his having invited, and of your having gone at his invitation to see how the windmill operated. Now state, if you please, whether he then, or at any time, ever claimed or stated that the well from and in which the windmill operated was one put down by the process of the driven well, as you have described that process, or by any process other than that used for making an ordinary dug and stone well.

A. No.

Q. 31. What was the point of curiosity to which he invited your attention—was it the windmill or the structure of the well in which it operated. Please state whether it was the one or the other; and, if but one, state which one—the structure of the well or the structure and operation of the windmill?

A. It was the windmill, and the machinery driven by the windmill to do the pumping from the well.

Q. 32. Were there any driven wells ever put down or in use in Preble or in the county of Cortland and vicinity, to your knowledge, prior to the fall of 1861?

A. I never knew nor heard of any.

Q. 33. The town of Preble comprises a valley on the same river, and on about the same level existing in Cortland, does it not?

2405 A. It does comprise a valley on the same river and about the same level existing in Cortland, the river descending from Preble to Cortland.

Q. 34. Do you know whether the driven well is as applicable to the valley in Preble as to that in Cortland and whether numbers of these driven wells have been put down since the fall of 1861, and are now in use there in the valley of Preble?

A. In a portion of the valley they are as applicable and as easily made. In other portions of the town you have to go deeper.

Q. 35. At what time, according to your knowledge and recollection, did driven wells first come to be known in Preble and to be put down and to be in use there? State the year as near as you are able?

A. I should think, according to my recollection, the first I heard of their being put down and in use there was in 1865 and 1866.

Q. 36. State now whether they have been increasing there in numbers or not from that time onward?

A. They did for a while. I don't now think of but two that have been put down since the collection of royalties began; there may have been more.

Q. 37. Who first began to put them down as a business there, according to your knowledge?

A. I think Mr. Dunham, of Homer; Homer is a town adjoining Preble.

Q. 38. How were they at first treated there in Preble, when Mr. Dunham began to put them down, in respect to their method of construction—whether as a new method of well making or not?

A. Well, it was regarded as a new method.

MATTHIAS VAN HOESEN.

Subscribed and sworn to before me this 27th day of August, 1880.

FREDERICK HATCH,
Notary Public.

2406 SETH ALDRICH, being duly sworn in the case of William D. Andrews *et al. v.* George Leland *et al.*, and again separately duly sworn in the case of William D. Andrews *et al. v.* George Leland, testified as follows:

Q. 1. Please state your name, age, residence, and occupation.

A. My name is Seth Aldrich; my age is 74 years old last March; my residence is Preble, Cortland county, N. Y.; my occupation is that of a farmer.

Q. 2. How long have you resided in Preble?

A. Between 66 and 67 years.

Q. 3. During that period of time have you held any position of public trust; and, if any, what?

A. I have been supervisor of the town of Preble, and have held other minor offices as commissioner.

Q. 4. How long have you been generally acquainted with the inhabitants and affairs in the town of Preble?

A. Well, from my youth up.

Q. 5. Were you acquainted with William Tallman, of Preble, in his lifetime; also with Moses Tallman, his brother, living there?

A. I was.

Q. 6. How well acquainted with them were you, and how far from them did you live?

A. Well, I used to frequently see them; I used to go there to mill; I lived about two miles from them; I was intimately acquainted with both of them.

Q. 7. Do you remember the fact that William Tallman, while living in Preble, put up and had in use for some time a windmill for pumping water from a well on his farm for his stock?

A. I do.

Q. 8. Can you state in what year it was put up. If not the precise year, state as near as you are able the year.

A. I couldn't state the time it was put up; couldn't state the precise year; I have nothing by which I can fix my recollection; I only know it was put up and used for some time; I couldn't tell just when; I used to go across the lot, occasionally, in hunting,
2407 and see him watering his stock, and it remained there a good while after he ceased to use it for that purpose.

Q. 9. How long is it since it has been in use, either the windmill or the well?

A. Well, I can't tell the precise number of years; several years, some eight or ten years, and I guess longer than that.

Q. 10. Do you know about the driven-well process for well making as now in use in Preble and elsewhere in the surrounding country?

A. Well, yes.

Q. 11. What is the process in practice for constructing this class of wells? Please state.

A. Well, the process, as far as my knowledge goes, is by driving a rod the depth that they calculate they want the well—till they get down to water; then they draw that rod, draw it out of the ground, and put down a pipe that will fill the hole, the end of the pipe being drilled with holes for two or three feet from the end; they use the rod first in our locality, but I have heard of their putting or driving a pipe down in the first instance in other localities.

Q. 12. When were these driven wells first begun to be put down in Preble, according to your recollection, and who by?

A. Well, I couldn't tell the time when they were first begun to be put down, but Mr. Dunham was the first to put them down; about fifteen or sixteen years ago, according to the best of my recollection; I couldn't tell exactly.

Q. 13. State how that method of well making was received there in Preble—whether as a new method of well making or otherwise?

A. I considered it as a new method.

Q. 14. So far as you know, did your neighbors and other inhabitants of Preble speak of it as a new method or not so, far as you heard?

A. I think they did.

Q. 15. Have you ever known or heard of such a method of well making before Dunham put down these driven wells in Preble?

2408 A. Well, I had heard of it, you see, from Homer; I had heard that Dunham was putting down these wells in Homer.

Q. 16. How long was it that you heard of his putting down these wells in Homer before he came and put down wells of this description in Preble?

A. Well, I couldn't tell definitely; my best recollection is that it was within a year.

Q. 17. What was the kind of well in and from which the windmill of William Tallman was operated for pumping, as far as you know?

A. As far as I know, an open well; I know nothing to the contrary; I guess the well was covered over at the top—a board covering at the top; my opinion is there was a board covering; I could not say for certain; it was an ordinary dug and stoned well; I know from the fact that I have been in it since.

Q. 18. When?

A. I don't know the date of that; I guess in the neighborhood of two weeks ago.

Q. 19. Do you know whether it had recently been dug up?

A. The appearances were that it had been filled up and recently dug out; I judge so from the fact that the earth which had been thrown out was fresh.

Q. 20. Did you go down into the well about two weeks ago, when, as you say, it appeared to have been dug out afresh?

A. I did.

Q. 21. Did you find it to be an ordinary dug and stoned well?

A. I did, so far as I could see.

Q. 22. How deep was the well from the surface of the ground down to water?

A. We measured it and called it fourteen feet and two inches from the surface, water and all.

Q. 23. How deep was the water in the bottom of the well, should you say?

A. I should think some ten or twelve inches.

2409 Q. 24. Do you know whether, when you examined the well about two weeks ago, as you say, the dirt or gravel was removed from the bottom of the well down to the extent of the stoned walls of the well.

A. Well, I don't, of course; I couldn't tell what there was in the middle of the water down there.

Q. 25. What was the diameter of the well as it went down—the distance across from wall to wall ?

A. Somewhere from two to three feet at the top and, I think, only some eighteen inches at the bottom.

Q. 26. State, if you know, what was the condition of streams and supply of water on the flats there in Preble, in wells, as to whether high or low at the time you made your examination of the well about two weeks ago, as you say.

A. I should call it rather low.

Q. 27. Now, do you know or not whether this well which you so examined was the well where the windmill was?

A. I should say it was; there were then there some of the timbers used at the windmill, rotted away.

Q. 28. How was it when this windmill was put up—whether it was the first windmill put up in your valley as a means for watering stock or not?

A. It was the first I ever knew of being put up there for that purpose.

Q. 29. Now, please state whether at the time this windmill was put up, as you say, did you ever, then or afterwards, hear it stated or claimed that the well from which it operated was constructed any otherwise than as an ordinary dug and stone well, either by Mr. William Tallman or Moses Tallman or any one else, until within two or three years ago?

A. I don't think I ever did.

Q. 30. State further, Mr. Aldrich, whether when the windmill was put up and while it was in operation, down to the time of its discontinuance, did you ever hear William Tallman or Moses Tallman or any one else claim or state that any part of this well was constructed by the process adopted in the driven well as you have described it?

A. I never did.

2410 Q. 31. While the windmill was in use and down to the time of its discontinuance did you ever hear it mentioned by either Moses or William Tallman, or anybody else in Preble or elsewhere, that there was anything new in the construction of the well from which the windmill was operated differing in any respect from an ordinary dug and stoned well?

A. I never did.

(S'g'd) SETH ALDRICH.

Subscribed and sworn to before me this 27th day of August, 1880.
(S'g'd) FREDERICK HATCH,
Notary Public.

Adjournment taken to August 28, 1880, at 9 o'clock a. m., at same place.

2411 August 28, 1880—9 o'clock a. m.

Complainants appear; the case being called, defendants do not appear.

Thomas Ballard, being duly sworn in the case of "William D. Andrews *et al. v.* George Leland *et al.*," and again separately sworn in the case of "William D. Andrews *et al. v.* George Leland," testified as follows:

Q. 1. Please state your name, age, occupation, and residence.

A. My name is Thomas Ballard; my age is 50 years; my occupation is farming, and my residence, Preble, Cortland county, N. Y.

Q. 2. How long have you resided in Preble?

A. Eighteen years last spring, except one year in that time?

Q. 3. You may state whether you are a man of family or not, and have been during this period.

A. I am, and have been.

Q. 4. During these eighteen years how well have you become acquainted with the people and affairs of that town?

A. Well, usually well, as a farmer might; I am located near the center of the town of Preble and near its principal village; I am not acquainted so much with the north part; I have shared in the common intelligence of the town.

Q. 5. Did you know William E. Tallman in his lifetime, and also Moses T. Tallman, who still lives in Preble?

A. I did know William, and also know Moses.

Q. 6. How long was you acquainted with William Tallman, and how long with Moses?

A. I was acquainted with William E. Tallman from 17 years ago until he died, and with Moses Tallman from 17 years ago until the present time.

Q. 7. How near to William and Moses Tallman did you live?

A. Nearly a mile.

Q. 8. They were farmers, were they?

2412 A. Yes; also William owned a mill; he owned a grist-mill and saw-mill.

Q. 9. When their names were spoken of generally were they called "William E." and "Moses T." or "William" and "Moses?"

A. "William" and "Moses Tallman."

Q. 10. Were there in Preble any families of Tallmans other than those of William and Moses Tallman?

A. No, sir; not to my knowledge.

Q. 11. How were their farms situated, with reference to each other?

A. Adjoining farms; only a cross-road between them.

Q. 12. Do you now occupy either of these farms; and, if either, which of them?

A. I occupy the west part of Mr. William Tallman's farm.

Q. 13. How long have you occupied or lived on any part of this William Tallman farm?

A. Well, I have occupied it now for five years, and previous to that lived on it for a period of four years.

Q. 14. During the 17 years of your living in Preble, as you say — did, how near to the William Tallman farm did you and your family live? State generally.

A. Well, most of the time I lived adjoining when I haven't lived on it.

Q. 15. How well, for the 17 years spoken of, did you know the farm and premises of William Tallman, and how well was you acquainted with him during that period and with his brother Moses?

A. I was very well acquainted with the farm and premises of William Tallman and acquainted with him, and more so with Moses; I saw and conversed with him often.

Q. 16. Did you know that there was a windmill operating a pump in an open well on William Tallman's farm to supply water for his stock when you first came to Preble, as you say, 17 or 18 years ago?

A. Yes, sir; I knew there was one.

Q. 17. How near to the well did you reside from the time you came to Preble, to the well and windmill, during these 18 years?

2413 A. The first year, which was 18 years ago, I lived within a mile; then I moved and lived within 100 rods of the well for a period of four years, commencing 17 years ago, since which time I have lived within three-quarters of a mile or a mile from the well.

Adjournment taken to August 28th, 1880, at 2 o'clock p. m., at same place.

AUGUST 28, 1880—2 o'clock p. m.

Case called; complainants appear by Hon. Milo Goodrick; defendants do not appear.

Examination of THOMAS BALLARD continued:

Q. 18. Seventeen years ago you moved onto a part of the William Tallman farm, as you say; please state what time in the year was it that you moved on the part of that farm mentioned.

A. In the spring.

Q. 19. Was the windmill then in operation there at the well, and has it ever been in operation there since the spring of 1863?

A. It was not and hasn't been.

Q. 20. Did you have occasion during that spring and summer to get water from that well for drinking purposes?

A. I had occasion to go there and get water for drinking purposes, but whether it was in 1863 or 1864 I could not recollect; it was one or the other of those years; the occasion of my going was that my well at the house gave out and I had to go to this well to get water for household and drinking purposes; I went there for water several times.

Q. 21. How did you obtain the water from this well?

A. By a pail and rope; I let down a pail hitched to a rope and got the water and drew it up.

Q. 22. State whether there was apparently an abundance of water in the bottom of the well at the time or times you went there for water, as you say.

2414 A. There was plenty.

Q. 23. What kind of a well was it in point of construction?

A. It was a dug well, stoned from the bottom with flat stone, two or three feet from the bottom, and with cobble-stones the rest of the way to the surface.

Q. 24. How often in the season of 1863 or 1864, when, as you say, your well at the house gave out and you went to this well in question for water—how often during that season did you go there for water, do you think?

A. Three or four times.

Q. 25. Did you ever after that season have occasion to go there for water?

A. No, sir; I often went by there; it was on my road to my work.

Q. 26. When you went there to this well for water in the season of 1863 or 1864, as you say, was the frame of the windmill and were the fans or wings of the windmill still there in existence?

A. They were; the frame was there and the fans or wings were there, and when the wind blew it would turn; but I never saw it pump water, for there was no pump there, as I think.

Q. 27. From the year 1864 or 1865 state how familiar you have been with that well and frame and wings or fans of the windmill then there standing, as you say.

A. I have often seen it daily and weekly, and in a ruinous condition.

Q. 28. What became of the frame and the wings or fans of the windmill finally?

A. They fell down and remained there—the most of it; some of it, I think, had been picked up and carried away by the boys.

Q. 29. What finally became the condition of the well itself?

A. It filled by a freshet in the spring first and afterwards by throwing cobble-stones in it; it was afterwards filled up entirely, and I ploughed over it five years ago, I think, and I have since ploughed over it.

Q. 30. Do you know who took away the pump or pumps 2415 that had been in use there previous to the years 1864 and 1865, when you went there for water, as you say?

A. I do not.

Q. 31. According to your recollection, had the pump or pumps in use there been removed by somebody before you went there for water in the one or the other of those years?

A. I should think they had been.

Q. 32. Since either of those years has there ever been a pump in use in that well, to your knowledge?

A. No; there has not.

Q. 33. Were you called upon by either of the complainants to assist in removing the filling which had accumulated within that well, and for the examination of the well itself after the filling was removed; if so, when and by whom?

A. Yes; I was, three or four weeks ago, and by Mr. Parsons; I understand he is one of the complainants in this case; I had no acquaintance with him then; I had never even previously seen him.

Q. 34. State whether or not you did remove the filling that had accumulated in the well.

A. I did, with the assistance of Mr. Parsons and of my hired man, Mr. Share; we did it, a part one day, a part another day, and a part on the third day.

Q. 35. State whether you succeeded in getting out the filling down to the bottom of the stoned walls of the well.

A. I did.

Q. 36. Now, how did you find the well to be stoned up—with what kind of stone?

A. With flat stones at the bottom for about two or three feet, up to what would ordinarily be the surface of the water; the rest of the way to the surface of the ground with cobble-stones. The water I speak of is in the summer time; at other seasons there would be more water, and in spring and fall three times as much.

Q. 37. At the time of removing the filling, and after the filling was removed, what depth of water did you find in the well above the bottom of the stoning?

A. From fourteen inches to sixteen inches.

2416 Q. 38. Did you take any, and, if so, what, measures for removing the water from the bottom of the well as far as possible, and did you remove the same to any extent, and, if so, to what extent, to enable you to examine the condition of things at the bottom of this well?

A. We did; we took a pump to pump it out; we found that a hand pump wouldn't work; we then took pails, with a rope, and bailed it out, I being down at the bottom of the well while the bailing was going on, by the assistance of Mr. Parsons and my hired man at the top of the well; in that way we lowered the water to about nine or ten inches in depth, but it would fill again in ten or fifteen minutes, and then we would go bailing again to keep it down while I was making my examination.

Q. 39. Did you make an examination of the condition of things there at the bottom of the well? If so, state what was the condition of things there, as you found it.

A. We found a sheet-iron tubing there, sixteen or eighteen inches across, that stood on the bottom of the well inside of the stoning; the well was two feet wide there at the bottom, and this tubing stood in nearly the center of the well; the tubing was, I should think, from fifteen to eighteen inches in length.

Adjournment taken to August 30th, 1880, at 10 o'clock a. m., at same place.

August 30, 1880, 10 o'clock a. m.—Complainants appear by Noah J. Parsons; defendants do not appear.

Adjournment taken to August 31, 1880, at 10 o'clock a. m., at same place.

August 31, 1880, 10.30 o'clock a. m.—Case called; complainants appear by Hon. Milo Goodrich; defendants do not appear. Case held open to 2 o'clock p. m., August 31, 1880.

August 31st, 1880, 2 o'clock p. m.—Case called; complainants appear by Hon. Milo Goodrich; defendants do not appear.

2417 Examination of THOMAS BALLARD continued:

Q. 40. How came this well to be dug open and its filling taken out, as you have stated it was?

A. Well, Mr. Parsons called on me three weeks or a month ago; called on me and wanted to know where that well was. I told him I could tell him within two feet, I thought, where it was, though it was all covered over and ploughed over; he had two men with him, and he said he wanted to open the well; I then went down with him and showed him, as near as I could, where the well was; I did not stay myself, but left him and his two men there digging at the point which I pointed out to them; I then went to them again in about an hour, and they had found it and were then cleaning the dirt and stones out of it; they worked until night and they just got down to water.

Q. 41. This, you say, was about how long ago?

A. I calculate it must be as much as four or five weeks ago.

Q. 42. Had you had any previous acquaintance with Mr. Parsons or with either of the two men who came with him, as you state?

A. No, sir; they were strangers to me.

Q. 43. You state you pointed out to them the locality of the well; state what well it was, and whether it was the well on the William E. Tallman place where the windmill had been, as you have heretofore stated.

A. It was.

Q. 44. What was the depth of the soil which had accumulated over the well, as you saw upon returning, when they had found it?

A. I should think about six inches.

Q. 45. Was the Mr. Parsons who called upon you with these two men one of the complainants in this case, as you now understand?

A. I understand he is.

Q. 46. Had you any acquaintance with either of the other complainants in the action, or any connection with this driven-well controversy?

A. No, sir; nor have I any connection with this driven-well controversy.

2418 Q. 47. You say on the first day Mr. Parsons and the two men dug out the well down to water; what further occurred in respect to the well, and when?

A. Well, that night Mr. Parsons told me that he had hired a man to clean it out further down; he came to me in a day or two afterwards and wanted me to clean that well out; the man that he had hired hadn't done it, as he said, and he wanted me to; he said he would pay me for it; I told him I would do it.

Q. 48. And did you do it, and when?

A. I and my hired man did do it, and the next day.

Q. 49. How or by what means did you and he do it?

A. I went down and scraped it up with a fire shovel and put it in a pail and he drew it up with a rope; I had also with me a little crowbar to loosen up the filling and stones.

Q. 50. How far did you and your hired man then, by thus removing the filling, go down below the depth to which the well had been cleaned out, as you found it when you commenced your work?

A. About three feet.

Q. 51. What was the kind of stuff or dirt that occupied this space of three feet in further depth which you removed?

A. It was mud and stones.

Q. 52. In their removal did you make use of the iron bar you had, to any extent?

A. I did, to loosen the stones.

Q. 53. State how easily or otherwise you were able to loosen the stone and dirt with your iron bar down to the depth you went?

A. Very easily.

Adjournment taken to September 1st, 1880, at 9 o'clock a. m., at same place.

September 1st, 1880, 9 o'clock a. m.—Complainants appear by George L. Waters; defendants do not appear. Case held open to 11 o'clock a. m., Sept. 1st, 1880.

2418½ September 1st, 1880, 11 o'clock a. m.—Complainants appear by Hon. Milo Goodrich; defendants do not appear.

Adjournment taken to September 1st, 1880, at 2 o'clock p. m., at same place.

September 1st, 1880, 2 o'clock p. m.—Complainants appear by Noah J. Parsons; defendants do not appear. Case held open to 4 o'clock p. m., same day.

September 1st, 1880, 4 o'clock p. m.—Complainants appear by Hon. Milo Goodrich; defendants do not appear.

Examination of THOMAS BALLARD resumed:

Q. 54. Which was most of what you thus removed, the mud or the stone?

A. The mud.

Q. 55. State whether you removed the filling of the well down to the bottom of the stone lining of the well or not.

A. I did; I removed all the loose dirt and stone down to the bottom of the well.

Q. 56. What was the character of the earth at the bottom of the well as you found it?

A. Very hard gravel.

Q. 57. State whether you did or not scrape all the mud from this gravel bottom of the well; I do not mean every particle, but generally; and state to what extent you did so.

A. I scraped all the mud from the bottom of the well.

Q. 58. State whether, when that was done, the bottom of the well was visible to your sight or not.

A. It was not.

Q. 59. Why not?

A. Because there was water and it becamed roiled.

Q. 60. Did you examine the bottom; and, if so, how fully and to what extent?

2419 A. I fully examined it; first with my hands to find the bottom of the well, then with my crowbar to find if there was any more dirt or soft places in the bottom.

Q. 61. State whether you made any other examination for soft places in the bottom of the well than with your crowbar.

A. Yes; I felt all over it with my hands.

Q. 62. What did your examinations show in respect to there being in the bottom of the well any soft places or points or point? State fully what you found in the bottom of the well in this respect.

A. Why, I found nothing but a solid, hard bottom, without any soft place in it.

Q. 63. What length of time do you think you spent in your examination of this well after the mud was got out, and how thorough was your examination?

A. Well, I should think I spent as much as ten minutes time, and I thoroughly examined it all over.

Q. 64. How did you examine it in this respect with your crowbar? State how you used your crowbar for this examination.

A. I struck the crowbar down; I kept striking the crowbar down all over the bottom; there was not any difference in any part from the other.

Q. 65. How did the bottom receive the crowbar when thus struck down?

A. Very solid—almost with a bound.

Q. 66. What kind or size of gravel composed the bottom of the well?

A. From the smallest particles to the size of a goose-egg, I might say; it was difficult to tell exactly; some might have been larger than a goose-egg; the smaller gravel was compacted together around the larger gravel.

Q. 67. Which was most abundant in the bottom of the well, the smaller gravel or the larger gravel?

A. The smaller gravel.

Q. 68. How was the bottom of the well as to being on a common level with itself or otherwise?

A. It was nearly level.

Q. 69. Through what depth of water at the bottom of the well did you make your examinations there?

2419½ A. From five inches to ten inches, say, the difference owing to the influx of water, it being kept bailed out as much as possible.

Q. 70. How did the stone lining of the well come down in respect to this gravel bottom of the well?

A. It came down and rested on it somewhat slanting, making the well a little narrower than it was a little higher up.

Q. 71. What was the distance across from wall to wall at the bottom of the well?

A. Not quite two feet.

Q. 72. What was the kind of stone forming the lining at the bottom of the well?

A. It was flat stones for from two to three feet from the bottom of the well and cobble-stones the rest of the way up.

Q. 73. From your examination state, as particularly and as accurately as you are able, how closely the stoned lining of the well came down to this gravel bottom of this well you speak of.

A. It rested right on it.

Q. 74. In the work of cleaning out the well that you and your hired man did where was it that you first discovered any appearance of this sheet-iron tubing that you have spoken of, and on which day of your work was it that you first discovered it?

A. Near the bottom and on the first day of my work. I first felt the top part of it; I couldn't see it. I felt the top part of it by my fire shovel and with my crowbar, and with my hands also.

Q. 75. Was it below or any part of it above the water in the well when you first discovered it?

A. It was in the mud, under the water.

Q. 76. What, then, did you do with respect to uncovering or removing it? State particularly what you did after so discovering this sheet-iron tubing.

A. Well, I first tried to pry it up with my bar, but could not do that; then I took hold of it with my hands and pulled it out.

Q. 77. What was inside of this tubing when you pulled it out?

A. Chiefly mud.

2420 Q. 78. How near was the outside of the tubing to the walls of the well?

A. Well, about four or five inches, the tubing standing in about the center of the well.

Q. 79. How was the space between the outer sides of the tubing and the walls of the well filled, if at all?

A. They were filled full of the same kind of mud as the inside of the tubing was.

Q. 80. How far had you dug down from where you had commenced your work before you first came to this sheet-iron tubing in the well?

A. About two feet.

Q. 81. How did the mud and other material removed for this two feet correspond in kind and appearance with that which was outside and inside of the tubing, as you found it there?

A. It was all about alike, only rather more stones for the two feet above than there was below.

Q. 82. What was the color of the entire mud and earth that you removed from the point where you first began your work down to the bottom of the well?

A. It had the color of mud intermixed with gravel and stone.

Q. 83. With what ease or difficulty was you able to pull up this sheet-iron tubing through this mud when you did so?

A. Well, it came up rather hard, and that was owing in part to my cramped condition.

Q. 84. Was there room for two men to stand and do the work you did in the bottom of that well?

A. No, sir; there was not; there was barely room for one, and that was cramped.

Adjournment taken to September 2d, 1880, at 9 o'clock a. m., at same place.

2421 September 2d, 1880—9 o'clock a. m.

Complainants appear by Hon. Milo Goodrich; defendants do not appear.

Examination of Thomas Ballard continued:

Q. 85. What is your size, height, and weight generally?

A. My height is five feet seven inches; my general weight is from 135 to 140 pounds.

Q. 86. What should you judge to have been the height and weight of Moses Tallman and William Tallman, respectively, when you first knew them, seventeen years ago?

A. I should judge Moses Tallman would stand nearly or quite six feet in height. I think his weight at that time would be about 200 lbs. I don't remember so much about William Tallman, but I should think he would weigh about 200 lbs. at that time. I think he was not quite as tall.

Q. 87. You say you examined the bottom of the well to see what its condition was. How came you to do that; was it by request or not; and, if by request, by whose request?

A. It was by the request of Mr. Parsons, as I now understand, one of the complainants.

Q. 88. You say while you were removing the mud and stones from near the bottom of the well, and while making your examinations at the bottom, the water was kept bailed out as far as could be done, and you say the water kept flowing in. Could you and did you see how it flowed in—from what direction, whether up through the gravelly bottom or from the sides of the well? State what you observed, if anything, in this respect.

A. It came in from the sides of the well, near the bottom.

Q. 89. To what height did the water rise within the well at the time of your examination, when not bailed out, so far as you are able to say from your examinations at the time that you cleaned out the well at the bottom?

A. About fifteen inches or sixteen inches.

2422 Q. 90. Have you dug a well in use on the part of the William Tallman farm now occupied by you?

A. I have.

Q. 91. What is the relative elevation on the flat there of the point where this well of yours now in use there is, with reference to the point of this old and cleaned out well; which is highest, and how much higher, if any?

A. The well which I am using is the highest by, I should think, about twenty feet.

Q. 92. What is the depth from the surface of the ground of the well you have now in use there?

A. Twenty-eight feet.

Q. 93. What is the usual depth of water in that well in an ordinary season, and, say, in the month of August?

A. Well, a foot to fifteen inches.

Q. 94. State whether the present season you judge to be the ordinary season as to the prevalence of water there in wells upon the Preble flats.

A. Its a dryer season than ordinary. I call last year and this season dryer than ordinary.

Q. 95. State for how many years you have had personal acquaintance with the well you now have in use there upon the part of the William Tallman farm in question occupied by you.

A. About ten years.

Q. 96. State whether, during these ten years, you have known this well which you have there in use to have been any lower in the month of August than in the month of August of the present year.

A. One or two years I have known it to be about the same, but no lower. In other years there has been more water.

Q. 97. How far are these two wells—the one you have in use and the cleaned-out well in question—apart?

A. I should think from 80 to 100 rods.

Q. 98. You state that you think when you first became acquainted with the well in question there were no pump or pumps standing over it. Please state whether you have any recollection of there being anything visible at the surface that entered the well.

2423 A. I have no recollection of seeing any pumps or pump at the well. I have no perfect recollection of seeing anything, but I have an impression that there was a pipe or rod that stuck up there and went into the well, but whether it was a rod or pipe I cannot tell.

Q. 99. How does this cleaned-out well stand—whether on a common level with the ground immediately around it, or lower or higher?

A. It stands in a hollow spot which extends each way, but not at the lowest point of the hollow spot.

Q. 100. Do you know how this well became filled up? If so, state your knowledge on that subject.

A. It became filled up by a freshet some 14 or 15 years ago; the land being ploughed around it, the dirt was washed in; the freshet was the largest I have ever known; it covered the roads, and people had to stay all night with me; it was dangerous to go through at night.

Q. 101. State whether the well, from that freshet, became wholly filled or not?

A. It did not.

Q. 102. Are you able to state what portion of the well, from the bottom up, became filled from that freshet?

A. I am not; I can't tell, only that it was then partially filled up.

Q. 103. Do you know by what means the rest of the way up became filled? State what you know on that subject.

A. By throwing in stones.

Q. 104. How long do you say you have occupied the land immediately about the well?

A. About five years.

Q. 105. Had the well become wholly filled before that or not?

A. It was nearly full when I first began to occupy the land around the well.

Q. 106. State for how many years it has become filled, so that you ploughed over it.

A. About five years.

Q. 107. State how the dirt and stone that you found near and down to the bottom of the well corresponded with the dirt and stone of the soil of the ground surrounding the well at the surface.

2424 A. It all corresponded, except being wet; it was of a darker color.

Q. 108. I now present to you a section of sheet-iron tubing, and ask you to say whether this is the same sheet-iron tubing or not that you found at the bottom of the well upon your cleaning it out as you have stated.

A. Yes, sir; it's the same.

Q. 109. State whether its appearance now as to rust and so forth is the same or not as it was when you first took it from the bottom of the well.

A. It is; only it is not so wet and dirty.

(Previous to the answers to the last two questions, counsel for complainants presents to the witness a section of sheet-iron tubing, which the witness looks at and examines.)

Q. 110. Who was present at the surface at the time you found this sheet-iron tubing at the bottom of the well? If anybody was, state their names and where they live.

A. Mr. James Share and his wife and her small child.

Q. 111. How was it sent up from the bottom of the well to the surface? Please state.

A. By a rope, handled at the top by Mr. Share; he is my hired man, whom I have already mentioned.

Adjournment taken to September 2, 1880, at 2 o'clock p. m., at same place.

SEPTEMBER 2, 1880—2 o'clock p. m.

Complainants appear, case being called by Hon. Milo Goodrich; defendants do not appear.

Examination of THOMAS BALLARD continued:

Q. 112. State whether, when you commenced your work of
2425 cleaning out the well lower down and to the bottom than
it had been previously cleaned out by others, there was water visible or not when you commenced?

A. Not much of any water; no water standing, but the soil below was wet.

Q. 113. Now state for what distance down you had to remove the soil and dirt before water came to stand by itself above the soil or dirt below.

A. About 18 or 20 inches.

Q. 114. Which end up did the sheet-iron tubing, which you found at the bottom of the well, as you found it, stand—as it stands now on the floor before the notary or the reverse?

A. As it stands now before the notary, I believe, according to my best recollection.

Q. 115. Now, Mr. Ballard, please take your rule and measure the height or length of this section and also the diameter of the same so found in the bottom of that well, and give, also, a general and careful description of the same.

A. It is one foot in height and about fourteen inches in diameter; it is locked together as an ordinary stovepipe is; the upper end is more perfect than the lower; the lower end is more rusted out; in general appearance it is considerably rusted inside and outside; there are holes on all sides, most of which appear to have been rusted in; the sheet-iron tubing is an open piece of tubing.

Q. 116. How did the lower end of the tubing set, so far as you could judge or discover, when you found it—whether down upon the gravel bottom of the well and on a level with the walls of the well or otherwise? Please state.

A. It set on the bottom of the well; the walls appeared on a level with the bottom of the tubing.

Q. 117. Did you find anything else at the bottom of the well of any mechanical structure such as to indicate its having been used as a part of the machinery of the suction pipe of the pump? And, if so, state what it was.

A. Yes; I found a copper strainer.

Q. 118. Counsel for the complainants presents to the wit-
2426 ness an instrument in the form of a strainer, and asks the
witness whether the instrument so presented is the one he found at the bottom of the well or not.

A. Yes; it is; I marked it at the time; I find my mark on it.

Q. 119. Please describe it.

A. It is made of copper, like a sprinkler, full of holes at both bottom and sides, about five inches and a half across the bottom;

holes are small; the sides taper to a neck of about two inches in length and one inch and five-eighths of an inch in diameter.

Q. 120. Is there anything about or at the open extremity of the neck of the strainer?

A. Yes.

Q. 121. What? Describe it.

A. It is a piece of leather bound around very tight at the extremity; bound around once and more than once, tied with a knot, and appears to have been broken.

Q. 122. Is this strainer or not now in the same condition that it was in when you first found it at the bottom of the well?

A. Yes; only it is now dry.

Q. 123. State whether when you found it as now there was and is any corrosive coat or rust covering it.

A. There was the same as now, having a pale green color.

Q. 124. Who was present when this strainer was sent up at the well, if anybody?

A. My hired man, Mr. Share; whether his wife was present at the time I cannot say; she came about that time; I think, however, she was.

Q. 125. What became of and how have this sheet-iron tubing and this copper strainer, found at the bottom of the well, been kept since they were dug out of the well, so far as you know?

A. I kept them a few days in my granary; then Mr. Parsons come up and wanted them, and I let him take them; I have not seen them since until they were produced here before the notary.

2427 Q. 126. What do you say as to whether the copper strainer, as well as the sheet-iron tubing, are the same as found in the well and now in the same condition as when found?

A. They are the same, and in the same condition.

Q. 127. Counsel for complainants presents to the witness photographs, on a common photograph sheet, of the sheet-iron tubing and also of the copper strainer, on which photograph sheet are the words "Complainants' Exhibit Tallman's Dug Well and Contents," the same being now marked by the notary "Complainants' Exhibit No. 1," with the initials of the notary added, "F. H.," and asks him whether the photographs thus presented are a correct representation of the sheet-iron tubing and copper strainer which he found at the bottom of this cleaned-out well or not.

A. They are a correct representation.

Q. 128 & 129. In the photograph is the sheet-iron tubing represented as standing with the same end downward as it was found standing in the bottom of the well or the reverse?

A. I should think it stood the other end down.

Q. 130. When you found and sent up to the surface and top of the well this sheet-iron tubing and copper strainer was Mr. Parsons or either of the complainants or anybody else other than Share and his wife and child present?

A. No; no one else but Mr. Share and his wife and child.

Q. 131. During your examination here before the notary state whether you were requested by the complainants to go and again examine the condition of the well at its bottom, and whether you were requested to review your examinations first made, as you have stated, and whether you have gone and so examined; and, if so, who else, if anybody, accompanied you in the examination, and when such examination was made.

A. I was requested by the complainants to go and so examine; I was accompanied by Mr. Parsons and Mr. Andrews, complainants; also by Mr. Eben Daly, Mr. John Haviland, Mr. T. J. Getman, Mr. Share, and Mr. Matthias Van Hoesen.

2428 Q. 132. Did you then at this time go down into the well?

A. I did; I was the first one that went down; it was on Monday last.

Q. 133. How did you find the condition of things at the bottom of the well at this examination, with reference to their condition at the time you left it, when you was in it and cleaned it out to the bottom, as you have already stated?

A. I found it about the same.

Q. 134. What was the height of the water standing in it above the gravel bottom spoken of at this last examination, and state whether you measured it or not?

A. I did, and the depth of the water at the bottom of the well was fifteen inches.

Q. 135. Did any one besides yourself go down to the bottom of the well at this time?

A. Yes; Mr. Getman, Mr. Daly, and Mr. Parsons.

Q. 136. Did they go down separately or either two of them at a time?

A. One at a time.

Q. 137. How did you and each of them make your descent into the well?

A. We went down by a ladder brought from my barn.

Q. 138. Did you or either of you make any effort to get the water all out of the well; and, if so, how and to what extent did you succeed?

A. Yes; we did; we had a pump and we pumped it out so that we could see most all the bottom.

Q. 139. What, now, did you discover as to the bottom of the well and as to the walling of the well coming down to how near the bottom, and as to the influx of water which supplied the water of the well, and as to the depth of the water in the well before the pump was applied?

A. Well, the same as I have described it; the walling of the well came down to the bottom, as I have already described it; the water came from the sides of the well, mostly from the northeast side of the well; we measured and found the depth of the water in the well before the pump was applied to be about fifteen inches.

2429 Q. 140. Did any of your company make an effort to get an iron bar down into the gravelly bottom you have spoken of; if so, who was the person who made the effort, how was the effort made, and with what success?

A. Yes; Mr. Daly did. He took the iron bar and pressed on it and worked it backwards and forwards and round and round and pressed on it and got it down about ten inches. It took about ten minutes, I should say, to do it.

Q. 141. How long did this examination of the well continue?

A. I couldn't say; half an hour, I guess.

Q. 142. State whether this hole in the bottom of the well made by Mr. Daly was left open or not when your company departed.

A. It was.

Q. 143. After this hole was thus made state whether you went down into the well and examined it or not.

A. I did; I went down and found it.

Q. 144. State further if any water flowed up through this hole supplying water to the well.

A. I could not see any. If it had bubbled up I think I could have seen it.

Q. 145. On this last examination did you or either of your company, to your knowledge, discover in this gravelly bottom of this well any hole other than the one made by Mr. Daly, as you have stated?

A. No, sir.

Q. 146. Returning now to the time when, as you have said, you pointed out to Mr. Parsons, as near as you could, the locality of this well in question, state, if you please, whether there were any other persons with Mr. Parsons at the time.

A. Yes; there were two. I did not know them.

Q. 147. You have stated that after he had made some progress in cleaning out the well you came again to the well the same day. State whether when you thus again came there you saw anything which they said they had taken from out the well. If so, what was it?

A. It was a kind of a step-ladder for descending into the well.

2430 Q. 148. Where was it when your attention was then called to it?

A. It lay out on the ground near the well.

Q. 149. What was its appearance in regard to having been just removed from the well or not?

A. It looked as though it had just been pulled out of the well, it being wet and dirty.

Q. 150. Complainants' counsel now calls the witness' attention to a narrow strip of board, cut about three inches wide, having slats nailed across about fourteen inches apart and extending about half way down from one end, which is here present in the notary's office, and asks the witness whether or not he recognizes this strip of board, with its slats, to be the same that he saw near the well on the day that Mr. Parsons and the two men commenced opening the well, on the first day when the witness came back to the well the second time on that day where they were at work, as the witness has previously stated?

A. I do. I should think it was the same thing.

Adjournment taken to September 3d, 1880, at 9 o'clock a. m., at same place.

SEPTEMBER 3D, 1880—9 o'clock a. m.

Case called.

Complainants appear by Hon. Milo Goodrich; defendants do not appear.

Case held open to September 3d, 1880, at 10 o'clock a. m.

SEPTEMBER 3D, 1880—10 o'clock a. m.

Complainants appear by Hon. Milo Goodrich; defendants do not appear.

Examination of THOMAS BALLARD continued:

Q. 151. Describe the present appearance and condition of this strip of board and slats as it here presents itself.

2431 A. It looks as though it had been buried in the earth—partly rotten; one of the slats is broken; one slat (the one next to the top one), about one-half of it broken off.

Q. 152. How much do the slats project on each side of the board to which they are nailed?

A. They project about six or seven inches.

Q. 153. I call your attention to your previous answer to question No. 33 (which is here read by the notary to the witness); I desire to ask you, Mr. Ballard, to what depth down had the filling of the well been already removed by others when you were thus called, as stated in the question referred to, and when you went there to remove the remaining part of the filling down to the bottom of the well.

A. It had then been dug out for about eleven feet down.

Q. 154. How many feet of filling below did you take out before reaching the bottom of the well?

A. About three feet.

Q. 155. How far was water visible at your commencing the removing of the remaining filling that you took out?

A. By running a crowbar down you could see the water at the bottom of the hole—some 18 or 20 inches below.

Q. 156. You say Mr. Parsons assisted on the first day of your work in cleaning out the well. State whether he was there all the time on the first day or on either of the other days you was to work at it.

A. He was in there but a little while on the first day, and not but a little while on the next day; he was there most of the time on the third day; my hired man and I did the principal part of the work; the third day Mr. Parsons was there to see if we had got it cleaned out, so that we could get a full view of the bottom.

Q. 157. You have answered that the sheet-iron tubing, as you found it in the bottom of the well, stood as the tubing was standing here before the notary; at the time of making that answer how was it then standing here—which end, the rotted end or the more perfect end, down on the floor?

2432 A. It was then standing with the rusted-out end on the floor.

Q. 158. State, Mr. Ballard, whether, during your examination yesterday, you were requested by Mr. Goodrich, complainants' counsel, who was examining you before the notary, to take with you the copper strainer, which you have here testified to, and go with him to the office of the notary, M. Stanley Bierce, in this village (Cortland village), to see how, by actual trial, the neck of the strainer fitted to the perforated end of a section of iron pipe which was there in custody, and a photograph of which, as Mr. Goodrich stated to you, had been put in evidence in the testimony of Moses Tallman, taken before Edward S. More, in the same office, it being the office of John W. Suggett, one of defendants' counsel, the office which Mr. Bierce was occupying yesterday in taking testimony in this cause.

A. I was.

Q. 159. Did you go as requested?

A. Yes.

Q. 160. Whom did you find there present before the notary, Mr. Bierce?

A. There were several there; Mr. Andrews and Mr. Parsons, two of the complainants, were there, and Mr. Dibble, a witness then being examined there; and Mr. Palmer, one of defendants' counsel, and Mr. Bierce, the notary before whom the witness (Mr. Dibble) was being examined, were there; I think some other person came in, but I can't say who now.

Q. 161. Please state what occurred on your and Mr. Goodrich's going into said office, in the presence of these parties named.

A. Well, Mr. Goodrich took the pipe, which was laying on the table, and the strainer, and put the strainer on the perforated end, and called my attention at the window, and also Mr. Andrews' and Mr. Parsons' attention; also handed it to Mr. Palmer, stating that the strainer was one which had been found at the bottom of this cleaned out well in Preble; Mr. Goodrich stated to Mr. Palmer that he had got something to show him that he might want to see as much as he (Mr. Goodrich) the pipe.

2433 Mr. Palmer took the strainer and cut into it with his knife and examined it. Mr. Goodrich then took the strainer and in Mr. Palmer's presence put the strainer on the perforated end of the pipe, and Mr. Palmer took the two and examined it; then I guess Mr. Parsons or Mr. Dibble, I could not tell which one, took it and they examined it; next Mr. Andrews took it and went to the window, and I went with him and we examined it; each of us took off the strainer and put it on again, as testing whether it fitted or not; Mr. Goodrich then asked Mr. Palmer for leave to have a photograph taken of the two together to present to the court; I think he said that he couldn't; that Mr. Tallman didn't have it put in as an exhibit, or something of the kind. I can't tell just what was said; anyway, he said he couldn't then, but would consult somebody (I can't tell who it was he said he would consult) and would let Mr. Goodrich know.

Q. 162. You say you took off the strainer and put it on again and that Mr. Andrews did so. Please state with what difficulty or case the neck of the strainer went onto the perforated end of this pipe mentioned, and how well or otherwise, when put on, it fitted.

A. It went on very nicely and fitted very well.

Q. 163. How far did the neck of the strainer go on the perforated end of the pipe?

A. I should think about an inch and a half or two inches.

Q. 164. State whether, when thus put on, the fit was tight or loose or otherwise.

A. It was tight.

Q. 165. State whether you examined the perforated end of the pipe there shown by Mr. Palmer with reference to how much of the orifice of the pipe was left open at the perforated end.

A. Yes; I examined it. There was more than one-third of it left open.

Q. 166. Did you measure to see; and, if so, what was the size of the diameter of the end other than the perforated end?

2434 A. I did not measure it. I compared the diameter of the neck of the strainer with that of the end of the pipe which was not perforated. I compared them together. The diameters of the two were exactly of the same size.

Q. 167. What is the diameter of the neck of the strainer? And state whether you have measured it or not.

A. I have measured it. It is one inch and five-eighths of an inch.

Q. 168. Did you make the attempt to see whether the orifice of the neck of the strainer could be got onto the end of the pipe which is not perforated; if so, what do you say as to whether it can be or not?

A. I did make the attempt or effort. It would not go onto that end. The pipe was bigger at that end than the orifice of the neck of the strainer.

Q. 169. You say the perforated end of the pipe was smaller than the other end. How or by what means apparently had the perforated end been made smaller than the other end?

A. It looked as though it had been made smaller by being hammered in by some blacksmith.

Q. 170. How, apparently, had the orifice of the pipe at the perforated end been lessened to about one-third of the whole orifice of the pipe, as shown, at the other end—that is, by what means, apparently?

A. By the appearance of it the end had been turned in by some blacksmith.

Q. 171. How much thicker was the iron of the pipe than the copper of the neck of the strainer?

A. The copper was very thin and the iron of the pipe very much thicker; five or six times thicker.

Q. 172. I now present to you what has been furnished to complainants' counsel by Mr. Irving H. Palmer, one of defendants' counsel, under his signature, the photograph of the perforated pipe in question (the complainants' counsel here presenting to the witness the photograph in question), and ask you to state whether it presents a correct representation of the perforated pipe which was exhibited yesterday in Mr. Bierce's office, as you have stated.

A. I think it is a correct representation.

2435 (Complainants' counsel here gives to the notary the photograph referred to in the last answer, and asks that it be made an exhibit in connection with this witness' testimony.)

On the back of the photograph are the following words: "Furnished by I. H. Palmer, of counsel for defendants." Said photograph is here received by the notary and by him marked "Complainants' Exhibit No. 2, F. H."

Q. 173. I call your particular attention to the appearance of the strip of board to which the slats are affixed, and which you say you saw about and near the well at the surface on the first day that Mr. Parsons and the two men commenced cleaning out this well. I will ask you to state how many slats appear attached thereto and in what part they are attached?

A. There are four, with the broken one, commencing about 15 inches from one end and running towards and near the middle of the whole length of the strip of board; the rest of the way to the other end there are no slats for a distance of about six feet and one-half.

Q. 174. State whether there is any difference in appearance of decay in different parts of the strip of board, including the slats, commencing at the end from which the slats are most remote and describing the appearance in respect to decay along the other end.

2436 A. Commencing at the end indicated by the question, the board strip is not much decayed for about 14 or 15 inches up toward the other end; then, for some three or four feet up toward the other end, it is quite decayed; then from there less decayed to near the top.

Q. 175. What is the rise and fall of water in the well you say you have in use on the Tallman farm, from 80 to 100 rods distant from this well in question—that is, in high and low water?

A. Well, from ordinary high to ordinary low water the variation of water in the well referred to is about five or six feet at different seasons of the year; I mean the well that I have in use now.

Q. 176. Have you ever known the water in this well now spoken of any lower than it has been during the month of August of this year?

A. I think I have never known it any lower during the period I have known it, for about the last ten years; during the month of August of this season I think there has been, I should think, about nine or ten inches of water in it.

Q. 177. I call your attention to some irons, apparently the irons of a windmill, which have been here in the notary's office during your examination. State whether you do or not recognize them to be the remains of the windmill that stood by the cleaned-out well in question, some seventeen years ago, when you first became acquainted with the windmill there, as you say.

A. Well, they are the same old irons; I recognize them to be the same.

Q. 178. For how many years have you known of their lying around this well?

A. Oh, for ten or twelve years after the frame was down, I should think.

Q. 179. Was there any care taken of them?

A. No; they lay loose around.

Q. 180. When were these irons removed from the well, and who by, if you know?

2437 A. Part of them were carried away by William P. Randall, of Cortland village, I should think a couple of months ago; the remainder were taken by Mr. Parsons four or five weeks ago.

Q. 181. Of what material where the fans of that windmill from the time you have known it?

A. They were of sheet iron.

Q. 182. Are two of the fans here among the old irons of that windmill now in the office of the notary?

A. They are.

Q. 183. State whether they have, with the other remaining irons of that windmill, been here in the notary's office openly during your entire examination here?

A. Yes.

(S'g'd) THOMAS BALLARD.

Subscribed and sworn to before me this 3d day of September, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

2438 SEPTEMBER, 6th, 1880—11 o'clock a. m.

Complainants appear by D. L. Hurlbut; defendants do not appear.

STEPHEN D. FREER, being duly sworn in the case of "William D. Andrews *et al.*, complainants, *vs.* George Leland *et al.*, defendants," and being again separately sworn in the case of "William D. Andrews *et al. vs.* George Leland," testified as follows on behalf of the complainants:

Q. 1. Please state your name, age, residence, and occupation?

A. My name is Stephen D. Freer; my age is 65 years; my residence is Cortland village, Cortland county, N. Y.; my occupation is that of a coal dealer.

Q. 2. How long have you resided in Cortland village, Cortland county, N. Y.?

A. Sixty-five years.

Q. 3. State whether you were a member and whether you occupied any official position in the agricultural society of this county in 1861 and 1862.

A. I was a member—a life member—and occupied the position of president in 1862; I became a life member in 1858, and was one of the executive board in 1861.

Q. 4. You are aware of the fact that the fair ground of the society, contiguous to this village, was given up to the 76th Regiment of New York Volunteers, raised here, as their camp during the period of its organization and before it moved from Cortland on its way to the field, in December, 1861?

2439 A. I am.

Q. 5. At the time that the regiment occupied the fair ground as its camp, in the fall of 1861, how many wells and what wells were within those grounds?

A. There were two wells, both dug wells and stoned.

Q. 6. When were those wells put down?

A. In the fall of 1858.

Q. 7. Have you personal knowledge of the character of those wells as dug wells, and are they still remaining for use?

A. I have, and they are now in use or ready for use and have been ever since.

Q. 8. State their location on the fair ground and how each is operated.

A. One is near the main building and in the center of the front part of the ground, about six rods from the front fence; the other is in the rear, near the southwest part of the grounds; the rear well was operated in 1861 and 1862 by a chain pump and for several years; the front one was operated by an ordinary cistern pump in those years with, I think, a lead pipe attached.

Q. 9. During the time that the regiment was there did you learn of another well being made in the mess-house or cook-house for the use of the regiment? And, if so, state what kind of a well it was, as you learned at the time.

A. I learned there was a well there and that it was a drove well.

Q. 10. Mr. Freer, how deep were those dug wells?

A. As I recollect, the front one was 8 or 9 feet and the one in the rear 10 or 11 feet.

Q. 11. How was the supply of water in those dug wells?

A. For the purposes and uses of the society they afforded a sufficient quantity, but the supply being less in August and September.

Q. 12. Do you know when the driven well was taken away from the fair ground?

A. In the spring of 1862.

Q. 13. And has there any driven wells ever been operated on that ground since?

2440 A. Not to my knowledge.

Q. 14. State whether the surface of that fair ground is level or not.

A. It is nearly so, sloping a little to the east.

Q. 15. Who was the colonel of that regiment during its organization?

A. Nelson W. Green.

Q. 16. How long before the raising of the regiment did you first make his acquaintance?

A. Some few years; I couldn't say exactly; several years; about two or three years, I should say.

Q. 17. Had you met him frequently and done business with him prior to the raising of the regiment in 1861?

A. I had frequently met him and sold him coal and collected bills.

Adjournment taken to September 6th, 1880, at 2 o'clock p. m., at same place.

SEPTEMBER 6TH, 1880—2 o'clock p. m.

Complainants appear by D. L. Hurlbut; defendants do not appear.

Examination of STEPHEN D. FREER continued:

Q. 18. Please state what the character of Colonel Green was as to being a social, pleasant, gentlemanly appearing person prior to the shooting of McNett, which occurred here in the fall of 1861, as you knew him.

A. As I knew him, prior to his connection with that regiment, he was an open, social, wide-awake man and social as most any one you would meet.

Q. 19. Did you learn of his shooting of McNett for an alleged breach of orders occurring in camp in the fall of 1861?

A. I did learn of it.

2441 Q. 20. Please state whether or not that occurrence divided the people here in the county and vicinity—divided the people here for and against the Colonel, and whether there was excitement over the affair and the extent and intensity of such excitement.

A. It had a tendency to create a feeling in regard to the Colonel. They were very warm on both sides, and many war men sided with Colonel Green and many sided against him at the time, and before he left here, I think, the majority sided against him. That feeling was quite intense.

Q. 21. Please state whether that feeling was kept up here for and against the Colonel down to the time of the trial of his indictment, in the fall of 1866.

A. It was, to considerable extent.

Q. 22. From the time of the shooting of McNett and after he returned from the army, in the early summer and spring of 1862, down to the time of his trial under the indictment, please state whether you occasionally saw Colonel Green and about how frequently.

A. I would frequently meet him; perhaps once a week or once in two or three weeks; I can't say exactly, but quite frequently.

Q 23. Did you know of the fact of his being discharged from the service in the spring or summer of 1862?

A. From general report.

Q. 24. Please state whether or not the shooting of McNett involved Colonel Green in difficulties with the church here and with his regiment and lawsuits, as you understood at the time.

A. It did.

Q. 25. Please state whether Colonel Green had any business or calling, to your knowledge, other than to tend to his difficulties arising from the shooting of McNett from his return to Cortland, in the spring of 1862, down to the time of his trial, in 1866.

A. I don't know of any.

Q. 26. State what you observed the effect on the mind and conduct of Colonel Green was that was produced by the McNett affair and the indictment and the various controversies which fol-
2442 lowed under the popular excitement prevailing during the period from his return to Cortland, in 1862, down to the time of his trial.

A. After his return to Cortland, in 1862, he appeared like a very different man. There seemed to be something on his mind of a depressing nature, so that it was generally noticed in his daily appearance here, so that it was commented upon extensively and publicly. The uppermost thing in his mind seemed to be the telling over of his grievances and what he had undergone, and frequently people spoke of him that he must be insane from some cause or other.

Q. 27. Did that extend or not to the time of his trial?

A. Yes, sir; down to the time of his trial.

Q. 28. Please state whether Colonel Green went into society after these difficulties, and how he was regarded in Cortland.

A. He was generally excluded, or excluded himself, or withdrew from society. He was generally considered a bore, and even such as were considered his best friends would turn away from him rather than hear him tell his grievances; I have seen that myself.

Q. 29. Did you learn or hear of the driven well made upon the fair ground in the fall of 1861?

A. I did.

Q. 30. Who was conceded at that time to be the inventor of that process of well making, as you understood?

A. Colonel Green; called Green's well.

Q. 31. Did you ever hear of or know that process for getting water before that one at the fair ground?

A. The first I ever heard of the driven well was the one that was experimented on at Colonel Green's house and the one at the fair ground.

Q. 32. Did you personally see either of them put down?

A. I did not.

(S'g'd) STEPHEN D. FREER.

Subscribed and sworn to before me this 6th day of September, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

Adjournment taken to September 7th, 1880, at 9 o'clock a. m., at same place.

2443 SEPTEMBER 8TH, 1880—9 o'clock a. m.

Case called.

Plaintiffs appear by D. L. Hurlbut; defendants do not appear.

Case held open.

WILLIAM S. COPELAND, being duly sworn in the case of William D. Andrews *et al. vs.* George Leland *et al.* and again separately sworn in the case of William D. Andrews *et al. vs.* George Leland, testified as follows, being sworn for complainants:

Q. 1. Please state your name, age, and residence and occupation.

A. My name is William S. Copeland; my age is 55 years; my residence is Cortland village, Cortland county, N. Y.; my business is proprietor of the Messenger House, at Cortland village.

Q. 2. How long have you resided in Cortland village?

A. I have always resided here in Cortland county and vicinity, with the exception of during the war, from December, 1861, or January, 1862, up to 1865. For about two years just prior to 1861 I was also away more or less in Georgia.

Q. 3. Do you remember of the raising the 76th Regiment of New York Volunteers raised and quartered here at the fair ground?

A. Yes, sir.

2444 Q. 4. Who was the colonel of that regiment and who took the active part in its organization?

A. N. W. Green.

Q. 5. When was that regiment raised here?

A. In August and September, 1861.

Q. 6. When did you become acquainted with Colonel Green?

A. Well, the first that I became acquainted with him, the first that I knew of him, was in 1861. I may say that I had known of the man before 1861. My first acquaintance with him was in 1861.

Q. 7. Did you see him frequently and did you know him intimately during the time that he was raising the regiment?

A. Well, I did. I was on the ground with the regiment for some weeks; I can't tell just how long. I was assisting Mr. Wheeler and Graham, who had a contract for victualing the regiment.

Q. 8. About how many men were there in the regiment?

A. According to the best of my recollection I should say from 700 to 900 men; I can't tell exactly.

Q. 9. So far as you observed did Colonel Green give his time up exclusively to the raising and organizing of this regiment and to the duties of commanding the same while in camp at the fair ground?

A. Yes, so far as I observed.

Q. 10. Was Colonel Carmichael, Heman F. Robinson, and Byron Mudge officers of that regiment under Colonel Green while in camp there at the fair ground?

A. Yes, sir.

Q. 11. Did Colonel Green give orders as the colonel of the regiment to those men and others of the regiment?

A. Yes, sir.

Q. 12. Do you know of the driven well, so called, that is now in public use here in Cortland?

A. Yes, sir.

Q. 13. When did you first hear or know of that process being used for getting water?

A. My first knowledge of the fact was on the fair ground at the
time that I was there; the first that I heard was of an ex-
2445 periment that was made at Colonel Green's house, which I
heard had been put down before.

Q. 14.. Please state what you saw in relation to the well which you say was put down on the fair ground by this new process in the fall of 1861, while the regiment was camped there.

A. The colonel ordered his men to put down a well there. I saw Mudge at work putting down a tin or sheet-iron—I think it was tin—*tin* pipe, about two inches in diameter, with an iron rod, in the mess-room or cook-room; he put that down by first driving down a rod and then pushing down the tin pipe in the hole that he made; the tin pipe was somewhat larger than the rod, and it bothered him some—the tin pipe—about getting it down, and they got it down some five feet—four or five feet—and abandoned it; then they drove the rod farther down, I should think about twelve feet in all, according to the best of my recollection. The rod driven was about an inch-and-a-quarter rod, I think; they then pulled out the rod and put in a lead pipe; they put down the lead pipe about as far as they had driven the rod; then they connected the pump to that—a common, cast-iron pump.

Q. 15. Did this pipe fit tightly into the ground?

A. Well, I couldn't say that it fitted tightly when it was put in; but the earth fitted tightly when it was in use; in putting down the lead pipe they worked it around in order to get it down in, because they couldn't drive a lead pipe.

Q. 16. Please state how long the well was in use there and how it worked.

A. The well operated well; gave a good supply of water; it was there in use during the time of the encampment of the regiment there.

Q. 17. Was Colonel Green there during the time it was being put down giving directions in regard to it?

A. He was.

Q. 18. How was that well regarded by the regiment, whether as a novelty and whether you heard expressions of surprise?

A. It was a novelty and surprise to all that were there, and
2446 Colonel Green stated or made the remark that in the country
of the enemy he would be able by this method to procure
water in a short time, and they could not put any poison in the
water as they could in a dug well.

Q. 19. Who was conceded to be the inventor and originator of this process of obtaining water?

A. Colonel Green was the first man that I have any knowledge of.

Q. 20. Did Colonel Green describe to you at that time, in 1861, his process for obtaining water?

A. I heard him describe that he would be able to drive down an iron pipe in a short time and obtain water in that way, by driving an iron pipe down to water in the ground and by attaching a pump to the pipe after it was driven he would have a well anywhere.

Q. 21. Do you remember of the shooting of McNett by Colonel Green late in the fall, while the regiment was in camp at the fair ground, for alleged disobedience of orders?

A. I was not on the fair ground at the time, and did not see the shooting, but heard of it probably in fifteen minutes after it was done.

Q. 22. Please state how the shooting of McNett affected the community here as to excitement and as to dividing the community for and against the colonel and the extent and intensity of the feeling.

A. It created a great excitement here through the people, and it divided the people for and against him; that feeling was very intense and bitter; very bad expressions made against him, and many apprehended that trouble would grow out of it, so much so that they sent to Truxton and got cannon and brought it here and placed it on the fair ground for protection in case of trouble, the excitement was so intense.

Q. 23. Did that great excitement, produced by the shooting of McNett by Colonel Green, and the division of the people here for and against him, continue down to the time and until after the regiment left here?

A. Yes.

2447–2450 Q. 24. What effect did the shooting of McNett and the great excitement growing out of it appear to have upon the mind and conduct of Colonel Green?

A. It appeared to throw a cloud over him; it seemed to make him nervous, excitable, and irritable; before that he was a very cheerful, social, and pleasant man to meet.

Q. 25. You left, as you have stated, shortly after the regiment and did not return until about the time of his trial on his indictment?

A. Yes.

(S'g'd) WM. S. COPELAND.

Subscribed and sworn to before me this 8th day of September, 1880.

(S'g'd) FREDERICK HATCH,
Notary Public.

Adjournment taken to September 8th, 1880, at 2 o'clock p. m., at same place.

2451 In the Circuit Court of the United States, District of Iowa. In Equity.

WILLIAM D. ANDREWS *et al. vs.* GEORGE LELAND *et al.*

Deposition of witness produced, sworn, and examined, in pursuance of the annexed notice, at Ilion, in the county of Herkimer and State of New York, before me, George C. Hutchins, a notary public in and for the said county of Herkimer, in an action now pending in the circuit court of the United States in and for the district of Iowa, wherein Wm. D. Andrews, George H. Andrews, and Nelson W. Green are complainants and George Leland and others defendants.

The complainants appeared before me this 6th day of August, 1880, at the office of Thomas Richardson, in the village of Ilion, said county, by and through their counsel, Thomas Richardson, and the defennants appeared at the time and place aforesaid specially by Calvin E. Keach, representing Lake and Harmon, of Independence, Iowa, and presents to the notary their objections in writing to the proceedings at this time and place and before this notary, which he asks the notary to mark as he may deem fit, and to return, with the deposition taken, if any be taken, to this honorable court.

Objections received and marked "Defendants' Objections, Ilion, N. Y., August 6th, 1880, George C. Hutchins, notary public."

IRA HAZARD, a witness produced by the complainants, being by me duly cautioned and sworn on the part of the complainants, testified as follows:

Q. 1. What is your name, age, residence and occupation?

2452 A. My name is Ira Hazard; age, 73; residence, Erieville, Madison county, N. Y.; occupation, I work at surveying; as a secondary business, I am a retired farmer.

Q. 2. Have you a son named Robert S. Hazard?

A. Yes.

Q. 3. About how old is he?

A. About 48 years.

Q. 4. Where did he reside in 1866?

A. He was in Black Hawk county, Iowa, in a place called Raymond.

Q. 5. Where does he now reside?

A. He is in Culberton, Hitchcock county, Nebraska; I suppose that to be his residence; that is where I address him.

Q. 6. How long have you resided at Erieville, N. Y.?

A. I have resided there 73 years.

Q. 7. Was your said son visiting you at Erieville some time in 1866; and, if so, about what time?

A. He was there at the commencement of the year, and left about the 9th of April.

Q. 8. State whether at or about the time that he visited you in 1866 you made an arrangement for your son with one Spencer D Richardson, of Syracuse, N. Y., whereby your son was to sell patent rights on commission, under a patent of William W. St. John, for a new and improved drill head, to be used at the bottom of driven wells.

A. I did.

Q. 9. Where did Wm. W. St. John reside at that time, as you understand?

A. Syracuse, N. Y.

2453 Q. 10. On what exact day, if you remember, was said arrangement made?

A. It was on the 9th day of April, 1866.

Q. 11. In what State or Territory was your son to sell said rights?

A. He was not confined to any anywhere.

Q. 12. State whether the blank form of deed now produced and shown to you was one of the blank forms which were furnished to your son at that time by Spencer D. Richardson to be used by your son in the sale of rights under said patent.

A. That is so.

Q. 13. State, if you know, in whose possession said blank form has been until quite recently.

A. It has been in mine.

Q. 14. About what time and from whom did you receive it?

A. I took it from my son in June of 1866.

Q. 15. And have you had it in your possession ever since until about two or three weeks ago, or perhaps a little longer; and, if so, at about what time?

A. Yes; I have had it in my possession until about four weeks ago.

Q. 16. To whom did you then hand said blank form?

A. Thomas Richardson, the examining counsel.

(The complainants now put said blank form of deed in evidence, of which the following is a copy. The original, by consent of parties, will be marked by the notary and to be produced by the complainants on the trial hearing.)

2454 Cross-questions asked by defendants concerning said paper:

X Q. 1. Was you present when these blank forms you speak of were furnished by Spencer D. Richardson to your son and did you see them handed or given to him?

A. I did.

X Q. 2. Where was it and when?

A. It was in Syracuse, the 9th of April, 1866; it was at Richardson's store, on South Salina street; I have orgotten the number.

X Q. 3. How do you know it was on the 9th of April, 1866?

A. I had dates to that effect.

X Q. 4. What dates and in what did you have them and where are they now?

A. There were several writings made that bore that date, and I have not got them.

X Q. 5. Did you put upon this paper now offered in evidence any

private mark by which you could identify it as being the same one that you got from your son and gave to Thomas Richardson?

A. I did not.

Received and marked Complainants' Exhibit 1, Ilion, N. Y., August 6th, 1880, George C. Hutchins, notary public.

The following is a copy of said blank form:

"Know all men by these presents that whereas I, Wm. W. St. John, of Syracuse, in the county of Onondaga and State of New York, have invented a new and improved drill-head to be used at the bottom of driven wells, and have obtained letters patent of
2455 the United States therefor, which letters patent bear date the 9th day of January, 1866, and are numbered 51980;

"And whereas Spencer D. Richardson, of the city of Syracuse and State of New York, has purchased one undivided half of the said patent by instrument of assignment bearing date the 13th day of January, 1866, and said Richardson and said St. John now hold the full title to the same as aforesaid;

"And whereas —— ——, of the —— of ——, county of ——, State of ——, is desirous of acquiring an interest therein;

"Now, this indenture witnesseth: That for and in consideration of the sum of ——, to us in hand paid and agreed to be paid, we have granted, sold, and set over, and by these presents do grant, sell, and set over, unto the said —— —— all the right, title, and interest which we have in the said invention as secured by the said letters patent for and in the —— of ——, in the county of ——, in the State of ——, and in no other place or places; the same to be held and enjoyed by the said —— —— for —— own use and behoof and for the use and behoof of —— legal representative, to the full end of the term for which said letters patent are granted, as fully and entirely as we now hold the same, together with all rights that may accrue from any reissue of the said patent or any extension of the same.

"And we do hereby guarantee that we have the full title to the said letters patent as aforesaid unimpaired, and that we have not transferred, sold, assigned, or incumbered said territory hereby conveyed to any other person or persons whatever in any way to affect a clear title to the same.

"Witness our hands and seals the — day of ——, 186–."

Adjourned to 1.15 p. m.

To further questions by complainants witness deposed as follows:

Q. 17. What was your said son's business in 1866 at the time this arrangement was made?

2456 A. He was a farmer.

Q. 18. After making this arrangement where did your son go, and about how soon after?

A. He went to Raymond, Iowa. He went that day after the arrangement.

Q. 19. What, if anything, did he take with him with reference to constructing driven wells?

A. He took the bottoms; these drill-head bottoms. He took a brace and pipe-cutter; I think nothing else.

Q. 20. By bottoms do you refer to the instruments that are called improved drill-heads in the blank form of deed put in evidence? Or, if not, explain more fully what you mean by bottoms?

A. I mean that—that is, in the blank form called improved drill heads.

Q. 21. What form was this improved drill-head? Describe it, please, and its purpose.

A. It was cast with a slot, or rather five or six slots, to admit the water and keep back any large substance. That was the purpose.

Q. 22. Was the drill-head so arranged as to be attached to the lower end of the pipe used in constructing a driven well?

A. Yes; they were attached by a screw.

Q. 23. And did said drill-head constitute the extreme end of said pipe when attached, and was it constructed with reference to facilitate the process of driving the pipe into the ground?

A. Yes.

2457 Q. 24. State whether your son took with him a pair of tongs.

A. I think he did not.

Q. 25. Did he take a stock and dies?

A. That was what I called a brace for cutting the thread on the end of the pipe.

Q. 26. State whether he took any pumps with him; if so, about how many.

A. One or two.

Q. 27. State whether you shortly after went to Raymond, Iowa. And, if so, at what time did you leave Erieville to start on your journey?

A. I did. I left Erieville on the 17th of May, 1866.

Q. 28. At what place on the route, if any, did you first stop?

A. Syracuse.

Q. 29. How long did you stay there?

A. Less than half a day.

Q. 30. For what purpose, if any?

A. I got some of those drill heads.

Q. 31. Where did you next stop off, if anywhere?

A. At Chicago.

Q. 32. How long did you stop there and for what purpose?

A. I stopped off the 19th of May, I think that night. I stayed there until the 21st day of May, in the morning, for the purpose of purchasing some pumps.

Q. 33. Did you purchase some pumps; and, if so, how many and from whom?

A. I can't give the names of the parties I purchased them of; there were twelve.

2458 Q. 34. Have you a bill or invoice that you received at that time from the parties from whom you purchased said pumps?

A. I have.
Q. 35. Has it been in your possession ever since?
A. It has.
Q. 36. Will you please produce it?
A. Yes.
Q. 37. Upon looking at said bill is your memory refreshed as to the names of the parties from whom you purchased said pumps?
A. Yes.
Q. 38. Please state the names of said parties and give their place of business.
A. Kirk, Goble & Mendsen, 36 South Water street, Chicago.

Received and marked "Complainants' 'Ex.' No. 2, Ilion, N. Y., August 6th, 1880," (Signed) George C. Hutchins, notary public.

2459 The following is a copy:

" T. J. Kirk. P. C. Goble. J. F. Mendsen.

" Mr. Ira Hazard, bought of Kirk, Goble & Mendsen, 36 South Water St.

" Iron, nails, steel, wagon materials, and Cowing & Co.'s goods, of Seneca Falls, New York, pumps, &c.

" Terms, cash.

"CHICAGO, *May* 21*st*, 1866.

" 12 No. 2 P. S. pumps, for gas pipe, $4.25 ---------------- $51 00

" Rec'd payment,

"KIRK, GOBLE & MENDSEN."

[2-cent internal revenue stamp, cancelled.]

Q. 39. Did you receive this bill of Kirk, Goble & Mendsen at the time it bears date, namely, May 21st, 1866?
A. I did.
Q. 40. Where, after leaving Chicago, on your way to Raymond, did you next stop off, if anywhere?
A. At Galena, Illinois.
Q. 41. How long did you remain at Galena?
A. Over night.
Q. 42. For what purpose did you stop off at Galena?
A. To see a man that I understood was there, that I was acquainted with.
Q. 43. Going back a moment, did you order the pumps which you purchased at Chicago shipped; and, if so, where to?
A. I ordered them shipped to Raymond, Iowa.
Q. 44. Have you the receipt or bill of lading of said pumps?
A. I have.
Q. 45. Please produce it.
A. I do.

2460 The complainants offer in evidence said receipt or bill of lading, which reads as follows:

(It is understood the complainants may produce the original on the final hearing. Received and marked "Complainants' Ex. No· 3, Ilion, N. Y., August 6th, 1880, George C. Hutchins, notary public.)

Said receipt or bill of lading reads as follows:

"*Way Bill No.* 740, *Car No.* 4, *S. C.*, *Pro. No.* —.

"No. 74. Date, 25th May.

"Cash in all cases on delivery of goods.

"25TH MAY, 1866.

"J. Hazard, Raymond, to Dubuque & Sioux City Railroad Co., Dr.

	Marks.	Weight.	Dolls.	Cts.
"For freight from Dubuque on 12 cis. pumps		320		
"Charges			3	83
			$3	83

"Received payment for the company,

"E. E. McSTAY."

Q. 46. Were the pumps mentioned in said receipt or bill of lading the same pumps that you purchased in Chicago?

A. Yes.

2461 Q. 47. After leaving Galena where did you stop off next, if anywhere, on your way to Raymond?

A. Dubuque, Iowa.

Q. 48. How long did you stop off there, and for what purpose?

A. I was there probably two hours, and purchased some gas pipe; it was inch and a quarter iron pipe.

Q. 49. What day, if you remember, did you leave Dubuque?

A. The 22d May, 1866.

Q. 50. Of whom did you purchase said pipe?

A. John Bale.

Q. 51. About how much pipe did you purchase?

A. One hundred foot; in addition to that there were some couplings.

Q. 52. Where, if anywhere, did you order said pipe shipped to?

A. To Raymond, Iowa.

Q. 53. Did you stop off anywhere else after leaving Dubuque before arriving at Raymond; and, if so, where?

A. At Independence, Iowa, Buchanan county.

Q. 54. How long did you remain at Independence before going on to Raymond?

A. Over night.

Q. 55. Did you in 1866 know Alpha Brown?

A. I did.

Q. 56. Where did he at that time reside?

A. At Eaton, Madison county, N. Y.

Q. 57. Did Alpha Brown at that time have a son; and, if so, what was his name?

A. Adelbert Brown.

Q. 58. In what place did Adelbert Brown at that time reside?

A. At Independence, Buchanan county, Iowa.

Q. 59. Did Alpha Brown entrust you before you left Erieville, N. Y., for Raymond, Iowa, at the time you have mentioned, in 1866, with some business with his son Adelbert?

A. He did.

2462 Q. 60. What was it?

A. Two hundred dollars in money; he wanted I should pay it to his son for him.

Q. 61. On arriving at Independence, Iowa, as you stated in your answer to question 53, state whether you paid said two hundred dollars to Adelbert Brown.

A. I did.

Q. 62. Did you take a receipt from him for said money?

A. I did.

Q. 63. Will you please produce it?

A. Yes.

(Paper produced.)

Q. 64. Did you receive this receipt from Adelbert Brown at Independence, Iowa, on the day it bears date?

A. I did.

Q. 65. Have you had it in your possession ever since?

A. I have.

Received in evidence and marked "Complainants' Ex. No. 4, Ilion, N. Y., August 6, 1880, George C. Hutchins, notary public."

The following is a copy of said receipt:

" Received of Alpha Brown by the hand of Ira Hazzard two hundred dollars.

" Dated this 22d day of May, 1866.

"ADELBERT BROWN."

Q. 66. Were you ever at Independence, Iowa, before the 22d day of May, 1866?

2463 A. I was.

Q. 67. When before?

A. I was there in May, 1859.

Q. 68. How long were you there in May, 1859?

A. I staid over night.

Q. 69. Were you ever at Independence at any other time before May 22d, 1866, except the one time you have just mentioned, being May, 1859, when you stopped there over night?

A. I passed through there coming back about four days after—in May, 1859.

Q. 70. Except the two times you have mentioned as being in 1859 were you ever at Independence, Iowa, before May 22d, 1866?

A. No.

Q. 71. Speaking of the occasion when you staid over night at Independence, in May, 1859, were you on your way somewhere further west; and, if so, where?

A. I was going to Blakeville, Buchanan county, Iowa.

Q. 72. And at what time of day on that occasion did you arrive at Independence?

A. About dark in the evening.

Q. 73. Where did you stop that night?

A. At the hotel.

Q. 74. And what time did you leave Independence the next morning?

A. Immediately after breakfast.

Q. 75. What was the object of your stopping there over night?

A. It was the end of the stage route, and I could not go any further by stage.

Q. 76. Did Adelbert Brown live at Independence at that time?

2464 A. He did not.

Q. 77. On your way back, about four days afterwards, as you have stated, at what time did you then arrive at Independence?

A. Somewhere about 6 o'clock in the afternoon I passed through.

Q. 78. What time of day did you leave there?

A. I did not stop there at all; I merely passed through.

Q. 79. Coming down to the 22d day of May, 1866, where in Independence did you spend the night of that day?

A. With Adelbert Brown.

Q. 80. When did you proceed to Raymond, if at all?

A. The next morning, the 23d of May.

Q. 81. When you arrived at Raymond where did you stop there?

A. At my son's, Robert S. Hazard.

Q. 82. How far is Raymond from Independence?

A. Some fourteen or fifteen miles.

Q. 83. What was your purpose or object in going out to Raymond from your home at Erieville?

A. Well, to assist my son in putting down pumps.

Q. 84. Please explain what you mean by putting down pumps.

A. It's putting down wells; that is the way I meant to be understood; those drive wells.

Q. 85. Do you refer to drive wells employing this improved drill-head that has been spoken of?

A. I do.

Q. 86. On what day did you arrive at Raymond—at your son's?

A. The 23d day of May, 1866.

Q. 87. Did you find that your son had in the meantime constructed any of these drive wells before you arrived there?

2465 A. I did.

Q. 88. For whom?

A. Elias Parker.

Q. 89. Where did he reside; about how far from your son's residence?

A. About eleven miles from my son's residence.

Q. 90. Were you, during your said visit to Raymond, at the house of Elias Parker; and, if so, how often and how long did you stay there?

A. I was there several times; stayed over night, and one or two days at different times.

Q. 91. Did you know his family?

A. Yes.

Q. 92. Are you any relation to Parker or his family, by marriage or otherwise?

A. His wife is a niece of mine.

Q. 93. Did you see the said drive well which you understood had been put down for Parker by your son?

A. I did.

Q. 94. Did you have any conversation with Parker about it?

A. I did.

Q. 95. Did you understand that there had been any difficulty or trouble in constructing said well; and, if so, what was the trouble or difficulty?

A. It raised sand.

Q. 96. From whom did you learn that fact?

A. From Elias Parker and my son, Robert S. Hazard.

2466 Q. 97. And did you also learn from them or either of them how the difficulty was remedied; and, if so, how?

A. By taking up the pipe and putting on a perforated tin strainer or filter.

Q. 98. Did you learn where they procured the said tin filter; and, if so, of whom?

A. I can't give the name, but of a tinner at Independence.

Q. 99. Was his name Jacobs?

A. I can't say; it was the only tinner there was there.

Q. 100. State whether you afterwards procured some tin strainers from the same tinner.

A. I did.

Q. 101. How long were you at Raymond and in that vicinity during that visit West, and when did you finally leave Independence on your return home?

A. I was there and about there a number of times. I passed through Independence on my way home June 11, 1866.

Q. 103. Where did you spend your time from the 23d day of May, 1866, on which day you arrived at Raymond, and the 11th day of June, 1866, when you passed through Independence on your way home?

A. Well, I was back in Independence again in about three or four or five days. I can't give the exact time. I was back again to Raymond, and from there to Cedar Falls, and thence to Waterloo.

Q. 104. How far is Waterloo from Raymond?

A. Nine miles.

Q. 105. How far is Cedar Falls from Raymond?

A. About 17 miles.

Q. 106. State what your object was in going from Raymond to Independence in three or four or five days after you arrived at Raymond.

2467 A. It was to see my friends and to see what the prospect was about those wells.

Q. 107. State whether you had any trouble in not receiving the pipe which you had purchased on your way out there, and whether there was any delay in the arrival of said pipe, and whether you went to Independence on one or more occasions for the purpose of looking after the pipe.

A. The pipe didn't arrive as soon as we expected; I can't say as I went back to Independence on that account.

Adjourned to 9 a. m., August 7th, 1880, same place.

SATURDAY, *Aug.* 7, 1880—9 a. m.

Parties met pursuant to adjournment.

Same counsel present.

Direct examination of IRA HAZARD resumed:

Q. 107½. State where you made it your headquarters when you were at Raymond in May and June, 1866, and where when you visited Independence during that time.

A. At Raymond I was with my son, Robert S. Hazzard, and at Independence principally with Adelbert Brown.

Q. 108. State whether during one of your visits to Independence during the time spoken of in the last question you saw a driven well there.

A. I did.

Q. 109. About what day of the month and what month of the year was it that you first saw it?

A. I cannot give the date, but it was the latter part of May, 1866.

2468 Q. 110. With whom were you stopping at Independence at that time?

A. Adelbert Brown.

Q. 111. State who first informed you about this driven well having been put down.

A. Adelbert Brown.

Q. 112. What did he say about it when he first spoke to you about it?

A. He told me that there was one of those drive wells put down in Independence yesterday.

Q. 113. Where were you when he told you this?

A. At his house in Independence, Iowa.

Q. 114. State whether Adelbert Brown pointed out to you this same well, and when.

A. He showed it to me the next morning; after breakfast he harnessed his team; I got on with him; he was going for a load of lumber at the railroad depot; we passed this well on our way to the depot and he pointed it out to me as we passed.

Q. 115. You said in your answer to question 112, "He told me that there was one of those drive wells put down in Independence yesterday;" do you desire to be understood that Brown pointed the well out to you on the same day that he told you this or the day after?

A. The next morning after.

Q. 116. State whether in going from Brown's house to the railroad depot you naturally went by this well—that is to say, was it in your ordinary or direct course, or did you go out of your way on purpose to see it.

A. It was on the direct course.

2469 Q. 117. State whether you got off at that time, either on your way out to the depot or on your way back, and stopped and examined this well.

A. On my return from the depot I stopped and looked at the well, or saw it; I was there through the day in Independence.

Q. 118. Please to explain *to as* the appearance of this well, and of what it consisted, so far as you could see it.

A. There was about eighteen inches of pipe above the ground, and a pump on top of the pipe, and attached to it.

Q. 119. What kind of pipe was it?

A. It was inch and a quarter iron gas pipe.

Q. 120. And what kind of pump was it, if you remember?

A. It was what was called pitcher spout; I should say No. 2.

Q. 121. Did you notice how the pump was attached to the pipe; and, if so, how?

A. It was screwed on.

Q. 122. State whether there was any appearance on the surface of the ground about the pipe as though there had been any digging of the earth upwards.

A. It had no such appearance.

Q. 123. State what kind of place it was where this well was located, as to whether the ground was high or low, wet or dry.

A. It was on a low piece of ground; I would say it had the appearance of being moist ground.

Q. 124. How was it as to there being any grass around there, or otherwise, in the immediate vicinity of the pipe, if you remember?

A. There was grass, and it was very green.

Q. 125. State how it was, if you remember, as to whether there was any opening at the surface of the earth around the pipe, or was the earth packed closely around the pipe.

2470 A. I should say it was close—that is, tight.

Q. 126. Will you please to state as to what the location of this well was with reference to any street that there was in Independence?

A. It was on the Main street, or what was called the correction line road.

Q. 127. Do you know whether that street at that time was called Main street; in other words, was that the term usually applied to it?

A. It is Main street; that is the name it was commonly known by at that time.

Q. 128. On which side of Main street was this well?

A. On the south side.

Q. 129. Was there any fence at that time between Main street and the lot upon which this well was located, or was it open?

A. It was open.

Q. 130. State whether there was any building near said well; and, if so, what was it.

A. A blacksmith shop on the other side of the street, nearly opposite.

Q. 131. What other building was there, if any, on the opposite side of the street, if you remember?

A. I don't recollect of any.

Q. 132. Was there a grist and saw mill in Independence at that time; and, if so, where, approximately, were they located, with reference to this well?

A. There was, northeast of the well, on the opposite side—that is, on the north side of the street; I can't tell exactly how far east from the well.

Q. 133. State whether there was a bridge which crossed the river or creek running through Independence; and, if so, where this well was located with reference to said bridge, as to the point of compass.

A. There was a bridge that crossed the river there; the well was west of the bridge, somewhere about an eighth of a mile; may be more or less; am not certain about it.

2471 Q. 134. State whether you remember what the name of the blacksmith was who kept the blacksmith shop you have mentioned.

A. I can't say for certainty what it was; I saw it.

Q. 135. Permit me to refresh your memory on that subject, and ask you whether his name was Kays?

A. It was something like that.

Q. 136. I hand you what I understand to be a tracing from a map put in evidence by the defendants herein and marked Defendants' "Ex. B;" please examine the same and say whether the location of the well, as marked thereon, south of Main street, corresponds with the location of the well which you have spoken of.

A. The location of the well is correct as being on the south side of the street.

Q. 137. Looking at said map again, please state where Adelbert Brown's residence was when you were there in May and June, 1866, with reference to the location of said well, as laid down on said map—that is to say, assuming that the well is properly located on said map, in the northwest corner of lot No. 3, on what lot, as near as you can now remember and judge from said map, was Adelbert Brown's located.

A. It was southwest of the well; it might be on lot 6 or 7.

Q. 138. About how far was Adelbert Brown's residence from the well, according to your best recollection?

A. Somewhere from a quarter to half a mile in a direct line.

Complainants' offer in evidence as an exhibit referred to by the witness in his testimony the tracing of the map referred to in question 136.

2472 Received tracing in evidence and marked "Complainants' Ex. No. 4. Ilion, N. Y., August 7th, 1880. George C. Hutchins, notary public."

Q. 139. Was there any other Mr. Brown that you know of who lived in the vicinity of that well at that time?

A. I know of no other.

Q. 140. State whether Adelbert Brown, in May and June, 1866, was building him another residence; and, if so, where, and about how far from Independence.

A. He was; about two miles west of Independence.

Q. 141. And state, if you know, at what time Mr. Brown left his residence in Independence and moved into his new house, about two miles from there.

A. I can't say when he moved; he was about ready to move when I came away, about the 11th of June, 1866.

Q. 142. Please explain a little more fully what you mean when you say in your last answer, "he was about ready to move."

A. His new house was about ready for occupancy.

Q. 143. State whether on the day when you first saw this well at Independence you had any conversation with the blacksmith whose shop was on the opposite side of the street with reference to said well.

A. I did.

Q. 144. State what he said to you with reference to the same.

A. He said it was put down by a man; he did not give any name, and that the man had gone down the river to Quasqueton; I cannot say that he gave the day when the well was put down.

2473 Q. 145. State whether he spoke of it as being a novelty there, and what he said on that subject.

A. He said it was a novelty, and that all the ladies come and had a drink of the water.

Q. 146. State whether he explained to you the manner of construction of said well; and, if so, what did he say on that subject?

A. He said they first put down a 2-inch pipe; they drove the 2-inch pipe; they then introduced into that pipe a borer; they bored and made the bottom with this borer; they bored it out with this borer.

Q. 147. How far did they drive down this 2-inch pipe—all of the way or only part of the way to the bottom of the well, did he say?

A. It, the borer, only projected through the pipe below this pipe, as I understood it; he explained it to me.

Q. 148. State whether, before introducing the borer as you understood it, they drove a smaller pipe down.

A. No; they did not.

Q. 149. What did they do, if anything, as you understood, after they had bored out the bottom of this well with the borer?

A. They drew that out, and also the 2-inch pipe was taken out.

Q. 150. Go on, please, and state what further they did, as you understood.

2474 A. They then introduced this inch and a quarter pipe in the hole where they had drawn out the 2-inch pipe; that was all, I believe.

Q. 151. I do not clearly understand the description you have given. Was the 2-inch pipe which you have spoken of open at both ends, as you understood, simply to form a curb, so to speak, whilst they were drilling the hole with the drill, which they afterwards introduced, or how was that? Please explain fully.

A. There was a plug, as I understood, in the lower end of this pipe, a wooden plug, and that was pushed out after driving the pipe into the ground; they then introduced this borer.

Q. 152. State whether you saw at said blacksmith shop any implements or material such as were used in the construction of driven wells; and, if so, what?

A. There was an iron bar. This 2-inch pipe, which was explained to me as the pipe they used there—the borer; and there was something else, some other implement they used; I could not tell what it was.

Q. 153. State whether there were any points there; and, if so, describe them; and whether there were also chains there such as were and are used for withdrawing pipe from the ground.

A. I think there were one or two points there, perforated points, and a chain.

Q. 154. State whether said blacksmith informed you as to whom this crowbar, borer, 2-inch pipe, points, and chain belonged, and as to whether they or any part of them had been used in the construction of this well.

A. He gave me no name, but said that these tools were used in the construction of that well; then he explained how, as I have heretofore stated.

2475 Q. 155. State whether you, after that day and during that visit West, saw the well spoken of, and about how many times.

A. I can't say; I saw it after that day; cannot tell how many times; saw it some three or four times in a day.

Q. 156. Please describe the instrument which you saw there and which you have called a borer.

A. It was two pieces—I called them steel—about an inch wide, about one-sixteenth of an inch thick, and made fast at the bottom; the bottoms were made sharp; I think they were fastened together by some means; somewhere nearly four feet long; the upper end was fastened to a coupling and then a rod into that and then a handle into that on top of the rod. When they introduced the borer into the pipe the borer closed up; after pushing through the pipe it opened up; then they turned it around with this handle on top; they turned it around to form the bottom of the well—to make a hole in the bottom to form a reservoir.

Q. 157. State whether at that time you knew a man by the name of Delazon Holdridge; and, if so, where did he reside and what was his business or occupation?

A. Yes; I did; he was at Independence, Iowa; he was a lawyer and a land salesman.

Q. 158. Were you during that time—that is, in May and June, 1866—in the office of said Delazon Holdridge; and, if so, on more than one occasion?

A. I was there several times.

Q. 159. And whilst in his office did you have — talk with him about this well; and, if so, what was said?

A. We had conversation in regard to this well; he said it was something new and that they had quite a jubilee there at the time of putting it down; he said the women went and all had a drink of the water.

Adjourned to 1 p. m.

2476 Q. 160. Did you in May and June, 1866, when you were at Independence, know John Loomis; and, if so, where did he reside and what was his business?

A. I did; he lived at Independence; he had been a leather merchant and sold out while I was there.

Q. 161. Did you then and there have a conversation with John Loomis about this well which you saw at Independence; and, if so, what was it?

A. We had a conversation; he said it was something new; he wanted to know of me if I thought there was any money in it; he further stated that he was out of business; he had sold out his leather business; I gave him my opinion and said to him that it wanted a mechanic and that a man unacquainted with the business might loose money.

Q. 162. State whether you had a conversation or conversations with several parties at the railroad depot at that time; and, if so, about how many and to what effect was their conversation with reference to this well, as to its being a new thing or otherwise?

A. I talked with people or persons there several times; they claimed it to be new—something that they did not know anything about; they were strangers to me; I didn't know their names.

Q. 163. How far was Elias Parker's house from Independence and in what direction?

A. About three miles west, on what was known as the correction line road.

Q. 164. State whether during your said visit at Raymond there was a circus passed through there; and, if so, from what direction was it coming?

2477 A. I think there was; it was going west; it was coming from the direction of Independence and going in the direction of Waterloo.

Q. 165. Which was the first driven well, if any, that you and your son put down during your then visit to Raymond?

A. It was for Mr. Butterfield; I do not remember his given name.

Q. 166. What was his business, and where did he reside?

A. He was a farmer; he lived about a quarter of a mile or a little more south of Raymond, about half a mile north of my son's house; he lived between my son's house and Raymond; it was a stone house he lived in; he had been or was justice of the peace at that time.

Q. 167. Who put down this well and when was it put down?

A. My son and I put it down; Butterfield assisted us some; can't say when it was put down; not far from the 1st of June, 1866.

Q. 168. State whether shortly after that or about that time Butterfield purchased from your son the right to put down these wells under this patent of Wm. W. St. John?

A. He did.

Q. 169. And state whether on your way home from Raymond in June, 1866, at Butterfield's request, you stopped off at Dubuque and purchased some pipe for him for the purpose of constructing these wells.

A. I did.

2478 Q. 170. State whether Elias Parker also at that time purchased from your son the right to put down these wells under the St. John patent.

A. He did.

Q. 171. And did you whilst at Raymond or Independence on the occasion spoken of send to Dubuque for pipe for Parker and at his request for the purpose of constructing these wells?

A. I did; it was to be delivered at Jessup.

Q. 172. Which and where was the next well that you or your son constructed in June, 1866, under this St. John patent?

A. I assisted my son and Elias Parker in putting down a well for Adelbert Brown; it was on Brown's farm, at his new house.

Q. 173. Was Adelbert Brown present?

A. Yes.

Q. 174. State whether that well was regarded as a novelty or otherwise by persons who saw it, and please specify fully in that regard.

A. It was considered so by those who saw it; there were several workmen on Brown's house who saw it; there were others there, but I can't say who.

Q. 175. Did you at that time know a man by the name of Edgecombe; and, if so, do you remember his given name? State what his business was and where he lived and other facts which you remember at that time.

A. I did know a man by the name of Edgecombe; do not remember his given name; he was a farmer; he lived between Adel-
2479 bert Brown's and Elias Parker's; he sold out his farm while
I was there; I think he is a man about forty years of age.

Q. 176. In your testimony given this morning you described the points which you saw at the blacksmith shop in Independence as being perforated; do you remember with any certainty as to whether they were perforated with round or square holes or whether with slots?

A. It was my impression they were perforated; they might have been slots.

Q. 177. Referring to the grist and saw mill which you spoke of in your testimony this morning as being on the opposite side of Main street and east of the well at Independence, please state whether the mill-yard at that time, namely May and June, 1866, was confined to the northerly side of Main street, or did it extend to the southerly side of said street and occupy some space on that side?

A. It occupied both sides.

Q. 178. State whether there was any fence between said saw-mill and Main street, or between Main street and that portion of the mill-yard which lay on the south side of Main street, if you remember.

A. There was none on either side.

Q. 179. State with what said mill-yard was occupied with, if anything.

A. Nothing but saw-logs; there were saw-logs there piled up to some height.

Q. 180. About what day and what month did you finally leave Raymond for your home at Erieville, N. Y.; and about what day did you arrive home at said Erieville?

A. I left Raymond Monday, the 11th June, 1866; I was about four days on the road; I arrived home about the 15th of June, 1866.

Q. 181. Have you ever been at Independence or in that vicinity since?

A. I have not.

Complainants rest.

2480 Cross-examination of witness, IRA HAZARD, by CALVIN E. KEACH, examining counsel, who appears on behalf of Lake & Harmon, defendants' solicitors:

X Q. 1. Is John Loomis living or dead?

A. He is alive, as far as I know.

X Q. 2. Was his name suggested to you by Mr. Richardson or any other person since you testified this morning?

A. I think not.

X Q. 3. Why do you say I think not; don't you know?

A. It has not been.

X Q. 4. Why did you not mention his name before this afternoon?

A. Because it has not been called for.

X Q. 5. Were the people who you saw at the depot on several occasions and talked to about the well travelers?

A. Not all of them.

X Q. 6. Were most of them?

A. I don't know that any of them were.

X Q. 7. Do you now recollect any person whose name you can give who talked with you at the depot about this well?

A. I don't know.

X Q. 8. Was this well in sight of the depot?

A. It was not.

X Q. 9. What kind of a building was this depot?

A. It was a wooden building; it was a common-sized building.

X Q. 10. You say the well put down at Brown's new house
2481 was regarded as a novelty; do you mean by that that this
improvement your son had bought was a novelty? I mean this St. John patent.

A. So far as the point was concerned, those looking at that, the well, would not know what it was.

X Q. 11. Your son had driven wells, had he not, before you went there?

A. He had put down the Elias Parker well.

X Q. 12. Have you, since coming here to testify, had read over to you or stated to you by either the examining counsel, Mr. Richardson, or this other gentleman, Mr. Edwin A. Harris, what purported to be the testimony in this case, or portions of what had been sworn to concerning this Independence well, and the buildings and locations named by you in your testimony?

A. I think not.

X Q. 13. You stated when you started to make your last answer as follows: "I have not sworn from that;" I think the notary did not take that; I now ask you if you said so; and, if so, what you meant by so saying.

A. I meant to be understood that I was swearing from my own knowledge.

X Q. 14. Now, I ask you if your memory or knowledge has not been refreshed by what has been told you as to what others had already testified to it in this case out in Iowa.

A. I think not.

X Q. 15. Do you mean by that to testify that you have not been told what others swore to in Iowa.

A. I made a statement, you understand, that there had been statements corroborating these of mine; I was told there was corroborating evidence to my former statements.

X Q. 16. When?

A. I was told so since I came here.

X Q. 17. By whom?

A. By Mr. Richardson.

X Q. 18. Did you or not to-day and during the adjournment have a conversation about the testimony you had given, and was your attention called to the points or perforated pipes that you saw at the blacksmith shop that you testified to before dinner?

A. Yes.

2482 X Q. 19. Did you also have a talk about your testimony as to where the grist and saw mill was located as to the highway called Main street?

A. I think not.

Q. 20. Will you swear you did not? Please answer directly, yes or no.

A. I have no recollection of it.

X Q. 21. Cross-question 20 repeated; and will you please give me a positive answer, yes or no?

A. I say I did not; I have no recollection of any.

X Q. 22. Is that the reason you say not, because you have no recollection?

A. Yes; that is the reason.

X Q. 23. Are you in the habit of swearing positively that a thing did or did not occur because you have no recollection of it?

A. Yes, generally; if I don't recollect it I say it wasn't so.

X Q. 24. Where was Robert S. Hazard born, and in what year?

A. He was born at Erieville, I think, in 1833; that is my impression.

X Q. 25. Have you other children; and, if so, how many, and give us their ages?

A. I have had five others, six children in all; Robert was the eldest one; the next one was born about eleven months after; the next one was a daughter; she was born the 4th day of June, 1837; the next one, I think, was born in July; that was a daughter also; about two years after, about 1839; the next one was a son; I can't tell when he was born; there was more difference in his age; I can't give his age; the next one was a daughter; I can't give the year; I think she was born in October; the latter one is the youngest.

X Q. 26. When did Adelbert Brown first go West, to Iowa?

A. He went in the spring of 1865.

X Q. 27. Will you swear that he was not at Independence, Iowa, in 1861?

A. I could not.

X Q. 28. What did you go West for in 1859?

2483 A. My son Robert was about to settle there, and I went out to see about purchasing some land and stock for him.

X Q. 29. When did he settle there?

A. His family was there when I went there.

X Q. 30. How long had they (his family) been there then?

A. His family went in the spring or latter part of winter of 1859; my son went there in the fall of 1858.

X Q. 31. When did he move away from Iowa?

A. I think he has been gone about six years.

X Q. 32. Did he live there in Iowa from 1859 to 1874?

A. Yes.

X Q. 33. When did Elias Parker go to Iowa to live, if you know?

A. I think he had been there about two years when I was there, in 1859; as far as I know he is there yet.

X Q. 34. Were you in Independence, Iowa, in the years, or either of them, 1860, 1861, or 1862?

A. I was not.

X Q. 35. Then you do not know, do you, of your own knowledge, whether there was a driven well in Independence in 1861 or not?

A. I do not.

X Q. 36. Did you, personally, ever construct or help to construct a driven well in the city of Independence, Iowa?

A. No.

X Q. 37. What did you do at Bleeckerville, Iowa, or were you ever there?

A. I never was there.

X Q. 38. What hotel did you stop at in Independence in 1859?

A. There was but one there; it was the principal hotel there and the only one there at that time. I don't know the name of it.

X Q. 39. Where were you going when you stayed over night at Independence in May, 1859?

A. I was going to Blakeville.

X Q. 40. What for?

2484 A. To see about settling my son and purchasing some stock.

X Q. 41. How did you go from Independence?

A. I took a livery.

X Q. 42. What day of the week was May 17th, 1866?

A. I rather think Thursday—Wednesday or Thursday; I think it was one of the two.

X Q. 43. Well, which do you think it was?

A. I think it was Wednesday.

X Q. 44. Was not Adelbert Brown and Elias Parker present at all the wells you ever assisted in putting down in Iowa?

A. No.

X Q. 45. What well did you assist in putting down at which one or both was absent, and which was absent?

A. There was the Butterfield well; there wasn't either of them present.

X Q. 46. Where, if you know, did your son get the pipe used in putting down the Parker well?

A. I understood he got it at Dubuque.

X Q. 47. How did they use the tin strainer filter that you spoke of on the well that pumped sand—the Parker well I mean?

A. I never saw it.

X Q. 48. Then you do not know, of your own personal knowledge, do you, that they used one, nor what kind of a point they used or how they drove it?

A. I do not.

X Q. 49. Did you get a bill of the gas pipe you purchased at Dubuque; and, if so, what has become of it?

A. I got a bill and it's mislaid or lost; I think it is mislaid.

X Q. 50. Have you looked for it before coming here?

A. I supposed I had it when I came here.

X Q. 51. Cross-question 50 repeated; and will you please pay attention to my questions and answer them and nothing else?

2485 A. I have, and had it.

X Q. 53. How came you to look for these documents you have brought with you and introduced in evidence?

A. To fix dates.

X Q. 53. What dates?

A. Dates of times that I was West at different points.

X Q. 54. How did you know they would be needed on this examination?

A. I did not know for certain as they would, but I supposed they would.

X Q. 55. You have stated that there were writings that had the date of April 9th, 1866, on them when you made the arrangement with Richardson, at Syracuse, for the patent. What has become of them?

A. My son kept them.

X Q. 56. Was it at Richardson's office where you got his blank patent deed or contract that has been put in evidence, and was it at that time, namely, April 9th, 1866?

A. It was.

X Q. 57. Who else did you stay with at Independence in 1866 besides Brown?

A. Elias Parker.

X Q. 58. Who was the well driven for that you saw in front of the blacksmith's or across the road, if you know?

A. I didn't understand as it was driven for any one.

X Q. 59. Had you seen and examined this map or tracing of Independence and where the well was located before you was first asked to-day questions concerning them?

A. Yes.

X Q. 60. Did you measure this 1¼-inch pipe that was put down where the 2-inch pipe was said to have been taken out?

A. I did not.

X Q. 61. You do not know, do you, of your own personal knowledge, when such well was driven or by whom?

A. I do not.

X Q. 62. Nor how it was driven?

A. I do not.

X Q. 63. Is this lawyer and blacksmith living or dead?

A. The lawyer, as far as I know, is alive, and the blacksmith I know nothing about.

2486 X Q. 64. Was the sod and grass or earth around this pipe which was across the road from the blacksmith shop at all disturbed or did it look natural and undisturbed?

A. The grass—it had not been excavated; the grass had the appearance of being trampled on.

X Q. 65. Was that all?

A. I think so; yes, as far as I could see.

X Q. 66. Can you say, of your own knowledge, that there was not a driven well on those premises in 1861?

A. I cannot.

X Q. 67. Do you know whether these premises, as described by you, were in the same condition, as to their surroundings, as they were in 1861 when you saw them in 1866?

A. I know nothing about them in 1861.

X Q. 68. Did Adelbert Brown live in the same house in Independence in 1866 as in 1859?

A. He didn't go there until 1865.

X Q. 69. Have you not already testified that you could not tell, but that he might have been in 1861?

A. Yes; I said so; his family went there in 1865; that is the way I wish to be understood; anything previous to that I know nothing about.

X Q. 70. How many wells did you and your son construct while you were here in 1866?

A. We put down one; that was the Butterfield well.

X Q. 71. How long before you saw him had this blacksmith lived in Independence, Iowa?

A. I can't say.

X Q. 72. Do you know a blacksmith by the name of John Helwig, who resided at McGregor, Iowa?

A. I do not.

X Q. 73. Will you swear that the blacksmith you talked with about this pump and these implements was not John Helwig, of McGregor, Iowa?

A. I could not swear it wasn't.

X Q. 74. Describe this blacksmith, as minutely as you can.

A. He was a man not far from 5 feet 10 inches; about 30 years of age; might have been a little more; rather spare built; could not give his complexion.

2487 X Q. 75. Did he, this blacksmith, refer to this well or this method of boring under the earth as a new thing or novelty in that vicinity?

A. He called it so and spoke of the ladies coming there.

X Q. 76. What became of the earth that was bored out where this well pit or reservoir that you speak of was made with this borer?

A. I did not understand that there was any taken out.

X Q. 77. I did not ask you if any was taken out. You have described a method of forming a well pit or reservoir under the earth by this borer, it becoming larger, as you say, after leaving the bottom of the pipe. Now, I repeat, what became of the earth that was loosened by such boring?

2488 A. I suppose it remained in the ground.

X Q. 78. I do not want what you suppose. I ask you for actual knowledge, and repeat the question and ask you to state, if you know of your own personal knowledge, what became of the earth loosened by the borer.

A. I do not know.

X Q. 79. You have said in a former answer that the earth was packed tightly around this pipe on the well across the road from the blacksmith's. I ask you now how you understood such gas pipe was put down, whether by drilling, boring, or driving.

A. I understood the first pipe was driven. I didn't understand how it, the second pipe, was forced down. It was put into the hole made by the first pipe.

X Q. 80. Would it be necessary at all to drive or force down an inch and a quarter pipe into a hole that had just been made by a 2-inch pipe?

A. It would not require much force. The couplings take about two inches on an inch and a quarter pipe.

2489 X Q. 81. You say there were two points or perforated pipes at the blacksmith's shop. Did they appear rusty and as if pulled out of the ground where they had been used or not?

A. They didn't have the appearance of being used or ever being used.

X Q. 82. You say that the couplings on an inch and a quarter pipe would about fill up a two-inch hole. Am I to understand that the couplings measuring both sides are larger in diameter than the 1¼-inch pipe by about three-quarters of an inch?

A. They probably won't measure quite two inches; I think rather under two inches.

X Q. 83. Where were you born, and what year and what month?

A. I was born at Erieville, Madison county, N. Y.; in the year 1807; January 2d.

X Q. 84. Were you subpœnaed here; and, if so, by whom and when?

A. There was no process served in particular.

X Q. 85. Then you came by request of some one, did you not?

A. I did.

X Q. 86. Who?

A. Thomas Richardson.

X Q. 87. Was request in writing and by letter?

A. It was.

X Q. 88. How long ago did you receive it?

A. The last request was by telegram; the letter was July 28th; the telegram about August 1st or 2d.

X Q. 89. Were you paid anything for coming; and, if so, how much?

A. There was no fee paid.

X Q. 90. Was there any promise; and, if so, how much?

A. There was no price fixed.

X Q. 91. Then you have no arrangement or understanding as to how much you are to have for coming here to testify; is that true?

A. No; there is no arrangement, nor no sum fixed.

X Q. 92. How far is Erieville from here, the nearest way?

A. Forty-eight miles.

2490 X Q. 93. Did you know Mr. Richardson, who wrote to you, before he wrote to you?

A. Yes; I had seen him.

X Q. 94. Had you talked with anybody about this case before he wrote to you?

A. Yes.

X Q. 95. Who?

A. Edwin A. Harris.

X Q. 96. When was that?

A. It was in July.

X Q. 97. Did he in that conversation inform you as to what they wanted to prove in this case and what, in substance, had been testified to in Iowa?

A. He made the inquiry what I knew about it—putting down this well at Independence, Iowa; he had some papers what had been testified to, but not what I should testify to; he merely wanted to know what I knew about it.

X Q. 98. Did he read from these papers or in any way inform you of their contents and who had been sworn there?

A. He read the contents of some papers there—their statement; I don't know who it was.

Cross-examination closed.

Redirect examination of witness by Mr. RICHARDSON:

R. D. Q. 1. Are you not mistaken, Mr. Hazard, when you say that Mr. Harris had some papers what had been testified to, in your answer to cross-question 97? I ask you to reflect a moment and then give us your best recollection.

A. I can't say they had been sworn to, but a statement of some persons.

R. D. Q. 2. Allow me to refresh your memory. Was it not 2491 a statement of certain questions that had been made out for him by some person, and which he had been desired to ask you to find out what knowledge you had with reference to this Independence well?

A. I suppose that was it, but there was no form of oath attached to it that I know of or saw.

R. D. Q. 3. And did Mr. Harris on that occasion write down the information that you gave him as to your knowledge about these transactions?

A. He did.

R. D. Q. 4. And is that the statement which you refer to in your answer to last question but one, as having no form of oath attached to it that you know of?

A. It is.

R. D. Q. 5. And you knew Adelbert Brown before he moved to Iowa; and, if so, where did he reside before moving there?

A. I did; he lived in Eaton, Madison county, N. Y.

R. D. Q. 6. And up to what year did he live at Eaton?

A. Until 1865.

R. D. Q. 7. Then when you say, in answer to cross-question 27, that you could not swear that he was not at Independence, Iowa, in 1861, did you mean to be understood that you couldn't swear that he was not residing there at that time, and how did you mean to be understood in that regard?

A. I don't know of his being at Independence as a resident.

2492–2502 R. D. Q. 8. Do you know where he did reside in 1861?

A. I do not.

R. D. Q. 9. When did he commence residing at Eaton, N. Y.?

A. He was born there.

R. D. Q. 10. State whether and, if so, when, if you know, he moved away from Eaton in the first instance—the first time I refer to that he moved away from Eaton with his family.

A. He was just married, and he moved away from Eaton. He had been married, in fact, one or two years, for he worked his father's farm there. He did not move away from Eaton with his family until 1865.

R. D. Q. 11. Then is it true that Adelbert Brown resided continuously at Eaton, N. Y., until 1865?

A. As far as I know.

R. D. Q. 12. How far is Eaton from Erieville?

A. Eight miles.

R. D. Q. 13. And how far was the house that Adelbert Brown lived in at Eaton from the house you resided in in 1865 and for some years theretofore?

A. About nine miles.

R. D. Q. 14. And were you in the habit of seeing Adelbert Brown about 1865 and a few years theretofore frequently?

A. Yes; he is a nephew of mine.

R. D. Q. 15. And cannot you state, Mr. Hazard, with some degree of certainty, and, if so, please state where Adelbert Brown resided in 1860 and 1861?

A. I would think he was in Eaton.

R. D. Q. 16. Have you any doubt about it?

A. I don't know as I have. I do not know of his changing his residence.

Redirect examination closed.

2503 Recross-examination of witness by Mr. KEACH on behalf of Lake & Harmon:

R. X Q. 1. Was the paper referred to in your redirect examination and answer 4, upon which Mr. Harris made minutes, a different paper than the one from which he read to you what you said had been testified to by some person, you did not know whom?

A. I might have been mistaken as to that being sworn to; I saw no form of oath attached to that paper, nor any other that he had; he had a separate paper, and he wrote my statement down.

(S'g'd) IRA HAZARD.

Subscribed and sworn to before me this 7th day of August, 1880.

(S'g'd) GEORGE C. HUTCHINS,
Notary Public.

2504 Depositions of Elihu R. Benson and Charles P. Williams, of the city of Detroit, county of Wayne, and State of Michigan, witnesses produced, sworn, and examined on the twenty-second day of June, A. D. 1880, at Detroit, in the said State of Michigan, by virtue of a notice herein served June 11th, A. D. 1880, hereto annexed, for the examination of certain witnesses in a case pending in the circuit court of the United States for the district of Iowa between William D. Andrews *et al.*, complainants, and George Leland *et al.*, defendants, on the part of said complainants.

Complainants appeared by S. B. Bartlett, their counsel, and defendants by Lake & Harmon, of their counsel.

ELIHU R. BENSON, being produced as a witness, and after being duly sworn by me, testified:

Direct:

Q. 1. State your name, age, and place of residence.

A. Elihu R. Benson; fifty-six years of age; residence, 519 Clinton street, Detroit, Michigan.

Q. 2. How long have you resided in Detroit?

A. Little over a year.

Q. 3. Did you formerly reside at Warsaw, Wyoming county, New York; and, if so, during what time?

A. I did; from 1851 to 1868.

2505 Q. 4. While you resided at Warsaw were you acquainted with Chauncy C. Buxton and Timothy H. Buxton?

A. Yes, sir.

Q. 5. In what business were they engaged?

A. They were engaged in the manufacture of wagons and carriages.

Q. 6. Whereabouts in the village of Warsaw was their place of business?

A. Was centrally located on the west side of Main street, about the third block south of Buffalo street.

Q. 7. State the number and different kinds of shops occupied by the Buxtons.

A. They had a wood department, where they built the woodwork for their wagons; the paint shop located upstairs over the wood shop; then in the back part of the wood shop they had a wood machine shop; the engine, planer, buzz-saw, turning-lathe, and machinery for tenoning spokes after they were drove in the wheels; about twenty-five feet in the rear was a brick blacksmith shop, where they did their iron-work and blacksmithing; wood shop was next to the street, fronted on the sidewalk.

Q. 8. In what business were you engaged while at Warsaw?

A. In mechanical business.

Q. 9. Where was your place of business with reference to Buxtons'?

A. In 1861 commenced work for Gates & Garetsee. I continued about nine months in their employ, then I went to work for Chester Hurd & Sons, at South Warsaw, about two miles from Warsaw village; worked for them about two years; then they removed their business to the village of Warsaw and rented the shop they formerly occupied at South Warsaw, and carried on the machine business about eight months before the shop was destroyed by fire; for the next year I worked at different work, sometime at machine works, some of the time at carpenter work; after that I fitted up a lathe that I had burned at the time the shop burned; worked a few
2506 weeks in Davidson's shop fitting up some machinery; at same time I was doing work for Buxtons and Breck, Gates & Hurd; then I went into Breck, Gates & Hurd's shop.

Q. 10. In what business were Breck, Gates, & Hurd engaged?

A. They were running a planing-mill, manufacturing, doors, sash, blinds, and house fixtures.

Q. 11. Whereabouts was their place of business, with reference to the place of business of Buxtons'?

A. Right back, west; probably three hundred to three hundred and fifty feet back from Main street.

Q. 12. How did they drive into the shop of Breck, Gates & Hurd?

A. Their entrance was from Main street, past Buxtons' shop on north side.

Q. 13. State whether Chauncy C. Buxton and Timothy H. Buxton were engaged in business together; and, if so, what was the name of the firm?

A. They were in company, and the firm name was C. & T. Buxton.

Q. 14. How long were you engaged in the shop of Breck, Gates & Hurd?

A. I was there about a year.

Q. 15. At what time did you go into the shop of Breck, Gates & Hurd?

A. I think in early part of spring or latter part of winter, 1857.

Q. 16. In what business were you engaged while in the shop of Breck, Gates & Hurd?

A. In general jobbing work; machine work of all descriptions.

Q. 17. Did you have machinery there that you run and operated?

A. I had what is styled an engine lathe, or iron lathe, what used to be styled as an engine lathe.

Q. 18. State whether you carried on the business yourself alone, or whether some one was interested with you?

A. I carried on the business myself, and no other one was interested in that business.

2507 Q. 19. State whether C. & T. Buxton, or either of them, had any control over your work while in the shop of Breck, Gates & Hurd.

A. They had none whatever, further than what work they had done and were charged for the same as any other customers.

Q. 20. Who owned the machinery that you operated while in the shop of Breck, Gates & Hurd?

A. I owned it myself.

Q. 21. State whether during the time you were in Breck, Gates & Hurd's shop, Breck, Gates & Hurd owned or had any lathe or machinery in their shop for doing the same kind of work done by you?

A. They had not.

Q. 22. How long were you engaged in business in the shop of Breck, Gates & Hurd?

A. About fifteen months.

The further examination of this witness was postponed until 2 p. m., June 22d, 1880.

At 2 o'clock p. m. parties met pursuant to adjournment.

Q. 23. Describe as fully as you can the lathe which you say you had in the shop of Breck, Gates & Hurd.

A. It was an ordinary lathe, a lathe that we call a two-foot lathe, about seven feet eight inches in length, with wood bed and iron ways.

Q. 24. Now, give the length of the sheaves.

A. The pullies are different sizes; the whole length about thirteen inches, divided into four parts of different sizes.

2508 Q. 25. State whether the lathe had any attachments for extending its length.

A. There was no attachment, except what was used temporarily.

Q. 26. State whether it had any dies or plates attached to it while it was in Breck, Gates & Hurd's shop for cutting screw thread on gas pipe.

A. There was no screw gearing or cutting apparatus connected with the lathe.

Q. 27. State whether while you were in the shop of Breck, Gates & Hurd you had any tools, dies, or plates for cutting screw thread on gas pipe.

A. No, sir; I did not.

Q. 28. State whether while you were in the shop of Breck, Gates & Hurd you did cut any screw thread upon gas pipe for C. & T. Buxton or either of the Buxtons.

A. Not to my recollection.

Q. 29. When you left the shop of Breck, Gates & Hurd to what place did you then go?

A. I then moved my lathe and tools into C. & T. Buxton's shop.

Q. 30. State, as near as you can, the time when you moved from the shop of Breck, Gates & Hurd into the shop of C. & T. Buxton?

A. It was the spring of 1858.

Q. 31. State whether you rented a room of C. & T. Buxton in their shop.

2509 A. I rented a portion of a room; one corner of it.

Q. 32. In which shop was your room?

A. It was upstairs, over the wood shop.

Q. 33. State what tools and machinery you moved from the shop of Breck, Gates & Hurd into the room you occupied in the shop of C. & T. Buxton.

A. The lathe, tools pertaining to the lathe, chisels, vise and bench, drills, &c.; things that pertain to that business.

Q. 34. State whether at the time you moved into Buxton's shop from Breck, Gates & Hurd's you moved any plates or dies for cutting screw thread on gas pipe?

A. No, sir; I did not.

Q. 35. While you were in the shop of Breck, Gates & Hurd where was water obtained for use in the shop?

A. Generally got it from a pump back of Buxtons' blacksmith shop.

Q. 36. State whether or not there was any well upon the premises occupied by Breck, Gates & Hurd.

A. There was a well dug and used for getting water for the engine under the engine-room.

Q. 37. State whether or not there was any place near the shop of Breck, Gates & Hurd used by people who came there for watering horses.

A. There was a place just below the shop where they could drive into the creek, generally used for watering horses.

2510 Q. 38. Describe the pump from which you say you obtained water back of Buxtons' blacksmith shop?

A. It was a pump usually called force or hydraulic pump.

Q. 39. State whether it was in a well or how it was fixed?

A. It was placed in a dug well that was stoned up, probably two feet and a half in diameter; the pump was made of cast iron and worked by a perpendicular lever.

Q. 40. How long did you continue to carry on business or do work in the shop of C. & T. Buxton?

A. About two years.

Q. 41. While you were in the shop of C. & T. Buxton state whether or not they had any control over your work or the machinery that you operated there.

A. They had no control whatever.

Q. 42. State whether or not, after you moved your lathe into the shop of C. & T. Buxton, you put upon it or had put upon it any dies or plates for cutting screw thread on gas pipe.

A. No, sir; I did not.

Q. 43. State whether or not, during the time you were engaged in business in the shop of C. & T. Buxton, you had any dies, plates, or tools for cutting screw thread on gas pipe?

A. I did not.

Q. 44. State whether or not, during the time you were in the shop of C. & T. Buxton, you were familiar with the premises occupied by them and the different kinds of machinery used in their shops?

A. Yes, sir; I was.

2511 Q. 45. State whether, during the time you were so engaged in their shop, they had any tools, dies, or plates for cutting screw threads on gas pipe?

A. Not to my knowledge.

Q. 46. While you were engaged in the shop of C. & T. Buxton from what place or places was water obtained for use in the shop?

A. From the pump back of the blacksmith shop.

Q. 47. State whether or not water was obtained from any other source other than the pump back of the blacksmith shop.

A. Water that was used for the boiler and engine was taken from the race under the shop; that was the only place, to my knowledge, where water was obtained.

Q. 48. State whether at any time any tub was sunk into the ground on the premises of the Buxtons for the purpose of holding water.

A. There was a tub sunk into the ground and filled by a pipe from the mill-race; it was used for the purpose of tire setting.

Q. 49. Where was the mill-race relative to the premises occupied by Buxtons?

A. The race run directly under the shop; running angling, nearly northwest direction.

Q. 50. Under which shop did the race run?

A. It run under the shop of the wood machine department.

Q. 51. About how far from the wood shop was the blacksmith shop.

A. From twenty to twenty-five feet.

2512 Q. 52. In what part of the wood shop of Buxtons was their engine, spoken of by you?

A. In the southwest corner of the wood machine shop.

Q. 53. State as near as you can the size of the brick blacksmith shop.

A. I think the shop was about twenty feet wide and somewhere from thirty-five to forty feet in length.

Q. 54. State, as near as you can, how far it was from where the engine stood to the west of the blacksmith shop.

A. I think about sixty or sixty-five feet.

Q. 55. How far was it from where the engine stood to the nearest point of the mill-race?

A. Probably about eight feet.

Q. 56. State, as near as you can, how deep the water was in the race.

A. The water in the race at that point would vary from three to eighteen inches.

Q. 57. While you resided at Warsaw were you acquainted with Hiram E. Adams and Silas Fargo?

A. Yes, sir.

Q. 58. State whether or not, at any time, they were engaged in business in any of the shops occupied by C. & T. Buxton; if so, when, as near as you can tell.

A. They were in company in the wood machine shop of Buxtons' in, I think, 1857, 1858, and 1859.

Q. 59. In what business were they engaged?

A. They were engaged in making horse-rakes, sawing, turning broom handles, hubs, and general work of sawing and planing.

Q. 60. State whether or not they used an engine.

2513 A. Yes, sir; they drove their machinery by an engine.

Q. 61. State whether or not there was any other engine in use on the Buxton premises, during the time Adams & Fargo were there, other than the one used by them.

A. The only engine I ever knew of being on the premises.

Q. 62. State, if you know, when that engine was put into the shop of C. & T. Buxton.

A. I think it was put in in 1857.

Q. 63. Describe the engine.

A. The engine was what was called four horse power Collingwood engine, styled a portable engine.

Q. 64. State whether or not there was any other well on the Buxton premises, outside of the blacksmith shop, aside from the one you have mentioned as being back of the blacksmith shop.

A. There was a well stood about fifteen to eighteen or twenty feet from the northwest corner of Buxtons' wood shop; stood on the north side of the road that passed by the shop down to the planing-mill.

Q. 65. Describe this well.

A. It was the old style well, with a curb, reel, and bucket.

Q. 66. State whether or not there was any other well than the two you have mentioned on the Buxton premises outside of the shops?

A. There was not, to my recollection.

Q. 67. Mr. Benson, are you acquainted with what are commonly known and called "gas tongs?"

A. Yes, sir.

Q. 68. While you were engaged, as you stated, in the shop of Breck, Gates & Hurd, did you own or have in your shop any gas tongs?

2514 A. No, sir.

Q. 69. Did Breck, Gates & Hurd have any in the shop?

A. Not to my knowledge.

Q. 70. While you were engaged in the shop of C. & T. Buxton did you own or have any gas tongs?

A. No, sir.

Q. 71. State whether or not there were any gas tongs in use in the shops of C. & T. Buxton during the time you were there.

A. There was not, to my knowledge.

Q. 72. During the time you were in the shop of Breck, Gates & Hurd state whether you owned or run any other lathe that the one heretofore mentioned by you.

A. No, sir.

Q. 73. State whether, during the time you were engaged in the shop of C. & T. Buxton, you owned or run any other lathe than the one heretofore mentioned by you.

A. No, sir; I did not.

Q. 74. State whether or not you paid to C. & T. Buxton rent for the room you occupied in their shop from the time you moved into it.

A. I paid them rent from the time I went in and got to doing the business.

2515 Q. 75. By what power did you run your machinery?

A. By the same engine heretofore spoken of.

Q. 76. State whether or not you put in shafting and belting, connecting your machinery with Buxtons'.

A. Yes, sir; I furnished my own shafting and belting.

Q. 77. State what became of this lathe owned by you.

A. I gave C. & T. Buxton a mortgage on the lathe to secure them for rent and material had of them from the store, and afterwards they sold the lathe to C. P. Hurd.

Q. 78. State whether they took the lathe from you on the mortgage you gave them.

A. Yes, sir.

Q. 79. State, if you know, who sold it to C. P. Hurd.

A. Timothy Buxton.

Q. 80. Mr. Benson, do you recollect when a company commenced putting in gas works at the village of Warsaw?

A. I remember about the time.

Q. 81. State, as near as you can, when it was.

A. I think it was in 1859.

Q. 82. State, as near as you can, at what time in 1859 it was.

A. I think in the fall of 1859.

Q. 83. State whether or not, during the time you were in
2516 business in Breck, Gates & Hurd's shop and the shop of C.

& T. Buxton, you were familiar with the different kinds of machinery used and operated in the different shops in the village of Warsaw.

A. Yes, sir; I think I was.

Q. 84. State whether or not there were in use in any of the shops in the village of Warsaw, prior to the time the gas company commenced operations there, any dies or plates for cutting screw thread on gas pipe.

A. There was not, to my knowledge.

Q. 85. State whether or not there was an addition or extension to the blacksmith shop of C. & T. Buxton.

A. Yes, sir; there was an addition built onto the west end—a brick blacksmith shop.

Q. 86. State, if you can, when that addition or extension was built.

A. I think it was built in 1865 or 1866; I couldn't say positively.

Q. 87. State, as near as you can, how far from the west end of the blacksmith shop this well was of which you have testified as having in it a force or hydraulic pump.

A. I think about ten or twelve feet west from the shop.

Q. 88. State whether or not there was a door in the west end of the blacksmith shop.

A. There were double doors in the southwest corner of the shop.

2517 Q. 89. State whether or not, during the time you were in the shop of Breck, Gates & Hurd and in the shop of C. & T. Buxton, you were in and out the brick blacksmith shop of Buxtons.

A. Yes, sir; very often.

Q. 90. State, as near as you can, how often.

A. Well, from one to ten times a day, probably.

Q. 91. State whether the water obtained from this well spoken of by you back of the blacksmith shop was good drinking water and used for drinking by the hands in the shop.

A. It was considered to be good water and the only water I knew of being used for that purpose.

Q. 92. Prior to the building of this extension or addition to the Buxton blacksmith shop state whether there was any well or pump of any description whatever outside and back of the blacksmith shop other than the one you have spoken of in which was the force or hydraulic pump.

A. There was none, to my knowledge.

Further examination of this witness postponed until 9 o'clock a. m., Wednesday, June 23d, 1880.

At 9 o'clock a. m., Wednesday, June 23d, 1880, parties met pursuant to adjournment.

Q. 93. In answer to question 92 you stated that prior to the building of the extension or addition to the Buxton blacksmith shop there was no well or pump of any description whatever outside and back of the blacksmith shop other than the one in which was the force or hydraulic pump, to your knowledge; state whether or not, if there had been other well or pump outside and back of the blacksmith shop, you would have known it.

2518 A. There was no other, to my knowledge, and if there had been I should have been apt to have noticed it.

Q. 94. State whether or not during the time you were in business in the shop of Buxton you frequently obtained water from the well spoken of by you back of the blacksmith shop.

A. All the water we used for drinking and other purposes we got at the pump heretofore described; I could say I obtained it myself, for I was connected with no other person.

Q. 95. State whether or not during the time you were engaged in business in Buxtons' shop you cut any screw threads upon gas pipe or drilled or fitted any gas pipe for a driven well for C. & T. Buxton or for Timothy H. Buxton or Chauncy C. Buxton.

A. No, sir; I did not.

Q. 96. State whether or not you are acquainted with what is known and commonly called the "driven well."

A. Yes, sir; I have had some acquaintance with that business.

2519 Q. 97. State, if you can, when and where you first saw a driven well.

A. The first that I ever saw or heard of was driven in front of the Bingham Hotel, in the village of Warsaw; as to the date, it was in 1865 or 1866, more likely to have been in 1866.

Q. 98. By whom, if you know, was this well put down?

A. I couldn't tell the names of the parties; patent-right men, as I understood at the time; I think John West and John Lindsley did the work.

Q. 99. State whether or not, during the driving of this well and after it was first put down, there were a great many people there to see it and examining it.

A. There was a large crowd assembled there while driving, and the crowd continued there while it was operated after it was driven; it seemed to be a novelty and a general resort for the people; there was a good deal of water pumped into the street.

Q. 100. State whether or not it was put down, as you understood, for the purpose of introducing it.

A. I understood from the location where it was driven that it was put there for exposition.

Q. 101. State whether or not it was talked about by the people there at the time of the driving and at the time of the working of it as to its being a curiosity and a new invention.

2520 A. It was spoken of as a novelty, something new, and its merits pretty thoroughly discussed; a general topic of conversation.

Q. 102. State whether, at the time of the driving of this well or while it was in operation or use, you heard any one state or claim that they had ever seen or known of any such well in the village of Warsaw prior to that time.

A. I did not hear any one.

Q. 103. State whether or not at any time there was any well inside of the brick blacksmith shop of Buxton.

A. Yes, sir; there was a driven well inside of the blacksmith shop.

Q. 104. State, as near as you can, in what part of the shop this well was and by whom it was put down, if you know.

A. The well was located near the north side and towards the west end, fifteen or twenty feet from the west wall; the well was put down, I think, if my memory is right, by John West.

Q. 105. State if you know any other parties that were present or assisted in the putting down of this well.

A. There was several present at the time, some passing in and out; among them was Charley Williams, who, I think, was present part of the time; Buxton, Adams, Fargo, I think, was present at the time; I was present myself assisting in getting their pipes together; they were bothered with screwing their pipes together; the threads got bruised.

2521 Q. 106. State whether or not this was before or after the building of the extension or addition to the brick blacksmith shop.

A. It was soon after the addition was built on.

Q. 107. State, as near as you can, the time when this well was driven.

A. I think in the fall of 1867.

Q. 108. Describe this well.

A. The well was a pipe—gas pipe—with a point put into the lower end; holes drilled into the sides of the pipe up two feet, from two to two and one-half, from the bottom end; the pipe was driven down into the ground; the pipe consisted of three or four different lengths coupled together; those pipes as driven — screwed on to give the desired length to reach water; an ordinary, what is called a cast-iron, pump screwed onto the top of the pipe; that was, as near as I can recollect, the foundation of the well.

Q. 109. State whether or not the well you have described is what is known and commonly called the "driven well."

A. Yes; I have never heard any other name for it.

Q. 110. State whether or not the well you have described was the first well of the kind you know of having been put down on the Buxton premises.

A. It is the first and only one.

2522 Q. 111. State whether, while you were engaged in business in Buxtons' shop, or in the shop of Breck, Gates & Hurd, you ever heard Buxton or any of the hands claim or mention that there had been any driven well back of the blacksmith shop.

A. Never heard any such thing claimed.

Q. 112. State whether the water obtained from the driven well in the blacksmith shop was good for drinking purposes.

A. I couldn't say whether it was or was not. I never used any of it, to my knowledge.

Q. 113. State whether or not, while you were operating your machinery in the shop of Buxton, whether you did work for other parties than the Buxtons.

A. Yes, sir; I did work for several different parties.

Q. 114. State whether or not, when you moved into their shop, you went there for the express purpose of doing their work.

A. When I moved into their shop I went there for the purpose of doing general job or custom work; under no obligations to them any more than any other customer.

Q. 115. Where did John West, the person you have spoken of, reside at the time of the driving of this well?

A. He resided in Warsaw.

Q. 116. In what business was he engaged?

A. I think his main business was driving wells.

2523 Q. 117. State whether or not you learned that John West had or claimed to have the right to put down these driven wells in the village of Warsaw.

A. I learned the facts by what I heard, that he had the rights of the town to drive those wells.

Q. 118. State when he commenced putting down those wells.

A. I think that he commenced in 1866 or 1867; probably he commenced in 1866; it might not have been until 1867.

Cross-examination:

X Q. 1. How long did you live in Warsaw after you put your lathe in the shop of Buxton?

A. About ten years.

X Q. 2. How long did you work in Buxtons' shop?

A. I think about fifteen to eighteen months.

X Q. 3. For whom did you work after you left Buxtons' shop?

A. I worked for different parties, and you might say for myself.

X Q. 4. At what did you work?

A. I rented a machine shop and tools of Henry Garetsee.

X Q. 5. How long did you run the machine shop you rented of Henry Garetsee?

A. Somewhere about a year.

X Q. 6. What did you work at after that?

A. I worked in the machine shop for Garetsee.

X Q. 7. How long did you work for Garetsee?

A. I worked for him up to the fall 1864 most of the time.

X Q. 8. How long a time was that?

A. It would amount to about three years.

X Q. 9. On which side of Main street in Warsaw was Buxtons' shop when you put your lathe in there?

2524 A. The west side.

X Q. 10. How long and wide was the shop in which the wood work was done?

A. The whole building probably twenty-four by sixty feet.

X Q. 11. What work was done on the lower floor of this building?

A. Wagon, carriage work, planing, turning, and sawing.

X Q. 12. In which part of the building was the wagon and carriage work done?

A. It was done in the front part of the lower floor of the shop.

X Q. 13. Which way did this shop front?

A. Fronted east on Main street.

X Q. 14. How many hands were employed at the wagon and carriage work in the wood department?

A. Generally kept from three to five men.

X Q. 15. How many worked at carriage and wagon making in the wood department while you worked there?

A. On an average, about four men.

X Q. 16. Which way from the wood department of the carriage and wagon department was the planing, turning, and sawing work done?

A. West; divided from the wood shop by a partition and door.

X Q. 17. How many hands usually worked in the planing, turning, and sawing department?

A. Two.

X Q. 18. Who worked there at that business while you worked in the shop?

A. Hiram Adams, Silas Fargo.

X Q. 19. What work was done upstairs in this shop?

A. The front part was used as a paint shop and finishing room and carriage trimming.

X Q. 20. How many hands were employed at that business and who were they?

A. One painter was constantly employed, Charles Williams; sometimes we had a helper for a few days; one carriage trim-
2525 mer, Richard Tunks, did the most; there were others on and off that I wasn't acquainted with.

X Q. 21. What other work was done upstairs, if any?

A. No other to my knowledge, except rough painting; sometimes striping lumber-wagon wheels and boxes.

X Q. 22. Have you now stated all the work that was done in the upstairs while you was at work in that shop?

A. All that I remember of, except what was done by myself.

X Q. 23. In what part of the upstairs was your work done?

A. Done in the southeast corner of the back room upstairs.

X Q. 24. What kind of work did you do?

A. General machine job work, engine work, millwright work, moulding-machine work, threshing machines, general repairs.

X Q. 25. What did you work on, the wood or iron parts of machines or both?

A. Worked on both; mostly on iron.

X Q. 26. Did you do any of the iron work, except what could be done on the lathes?

A. Yes, sir.

X Q. 27. What iron work did you do that did not require lathe work?

A. Cutting out and filing up, shaping and fitting moulding knives for cutting moulding, and also finishing heads for holding knives for mouldings.

X Q. 28. In what year and for whom did you repair a moulding machine?

A. At different times in 1858 I fitted up a set of grooving and matching heads for Hurd & Co.; I also fitted up feed rollers for a planer, finger gear for driving the same, and other work; there was scarcely a day passed but a job came from the planing-mill for me to do; also the same kind of work for other parties.

X Q. 29. How many planing-mills were there in Warsaw in 1858?

A. There was one planing-mill proper, but several places where planing was done and mouldings cut.

2526 X Q. 30. Who owned the one planing-mill proper?

A. Breck, Gates & Hurd.

X Q. 31. Who owned either of the other mills where planing was done?

A. Davidson; I think it was A. J. Davidson & Brother.

X Q. 32. Where in Warsaw was Davidson's mill?

A. Their factory, where they manufactured horse rakes, on the east side of Main street, about 40 rods from Buffalo street, south; they had a Daniels planer and what is called the Woodworth planer and moulding machine.

X Q. 33. Who else in Warsaw did planing and moulding by machinery in 1858?

A. Thayer & Martin; they were in the map-roller business; they used the same kinds of machines for dressing the cones that cover the rollers of the maps. I don't think of any others in that town.

X Q. 34. When was it that Adams and Fargo were in business together there?

A. They were in business in 1858; I couldn't say whether they started there before that time or not.

X Q. 35. Did not they have a planer or moulding machine in their shop?

A. They had no moulding machine; they had what is called a Daniels surfacer for dressing timber.

X Q. 36. Did you not do work for them during the year 1858?

A. I done a little light work, light jobbing; the main work they had done was charged to C. & T. Buxton.

X Q. 37. What kind of work did you do for Adams & Fargo that was charged to C. & T. Buxton?

A. The work that was charged to C. & T. Buxton I supposed belonged to them.

X Q. 38. What was the kind of work that you did and charged to C. & T. Buxton?

A. Machine work.

X Q. 39. State specifically what you did that was called machine work that you charged to C. & T. Buxton.

2527 A. One of the jobs was boring and turning pulleys for intermediate shaft for driving buzz-saw.

Further cross-examination of this witness postponed until 2 p. m. June 23d, 1880.

At 2 o'clock p. m. parties met pursuant to adjournment.

X Q. 40. Go on and state fully what kind of work you did for Buxtons while you had your lathe in their shop.

A. I set up and connected shaft and belting for running paint-mill for grinding paints; sometimes they would bring in set pipe boxes to have the ends cut off, shortened a little; probably did fifty set of them while I was there; three or four set at a time; I bored and fitted some flanges for a wooden pulley that drove a drill; also at one time bored out boxes for a sulky; I also fitted up a machine for cutting the ends of tenons on the ends of the spokes of wheels after they were driven into the hub; there was other work that was brought in little jobs; I couldn't tell what they were without referring to my books.

X Q. 41. Have you now got the books that you kept your accounts in while you occupied a room in Buxtons' shop?

A. I couldn't say that I have; I have been looking for it, but can't find it.

X Q. 42. When do you remember of last seeing that book?

A. Don't know that I have seen it in twelve or fifteen years; can't say when I last saw it.

X Q. 43. On which side of Buxtons' wood shop was the blacksmith shop?

A. Blacksmith shop situated on the west end, probably twenty or twenty-five feet from the west end of the wood shop.

X Q. 44. Was the blacksmith shop on the same line and directly west of the wood shop?

2528 A. The north line of the blacksmith shop stood nearly on a line with the north side of the wood shop; Main street runs a little angling from due north and south, but think the lots lines run directly east and west; it might not be on an exact line west.

X Q. 45. About how far is it from the front or east end of the wood shop to the west end of the blacksmith shop?

A. Probably about one hundred ten or fifteen feet.

X Q. 46. Is there any road or street along the north side of these shops?

A. There is a wagon road that runs on the north side of those shops, where they drive in and out with teams.

X Q. 47. Is this a public road or street or a private way?

A. Think it must be public, because it is always open.

X Q. 48. To what place does it lead going west from Buxtons' shop?

A. It formerly led to the planing-mill of Breck, Gates & Hurd going on the north and passing on the west side of Breck, Gates & Hurd's shop, and from there to the commons on the creek.

X Q. 49. Whereabouts in this road did they cross the mill-race you have testified about?

A. At nearly the northwest corner of the wood shop.

X Q. 50. You have spoken of a tub being set in the ground and being filled with water from the race; now state where that was placed.

A. The tub was placed about thirty feet west from the west end of the blacksmith shop and from ten to fifteen feet south of this road running down to the planing-mill.

X Q. 51. Where did they take the water from the race to run it into this tub?

A. That I couldn't say, never having taken up the pipe to see.

X Q. 52. How far was this tub from the race?

A. Well, I think probably about fifty feet.

X Q. 53. How deep was the race where this road crossed it?

A. The bottom of the race was about five feet from the surface of the ground.

2529 X Q. 54. How deep was the water in the race?

A. It would vary from three inches to three feet.

X Q. 55. How were the banks of the race protected from washing?

A. By stone laid up in a wall on each side.

X Q. 56. About how high was this wall?

A. This wall would average probably from two to three feet.

X Q. 57. Was this wall laid perpendicular or sloping?

A. Laid perpendicular.

X Q. 58. How did teams cross the race?

A. The race was covered with flat stone and then gravelled over on top; it was covered in that way for some distance.

X Q. 59. Was the race covered in that way under the shop of Buxton and to the north of it; and, if so, how far north?

A. The race under the shop was not covered only by the shop; north of the shop it was covered with these stones and gravel for some twenty feet and then it was not covered for two hundred feet, till you came to Buffalo street; then it was covered across Buffalo street mostly with plank; I remember seeing some plank there.

X Q. 60. South of the shop how was this race about being covered?

A. South of the shop the race was covered with stone and gravel on top, through the yard of the Baptist church, striking into the corner of the Union School yard.

X Q. 61. How far was this shop of Buxtons' from the Baptist church?

A. Probably about forty feet.

X Q. 62. How many hands did Buxton work in his blacksmith shop?

A. He generally kept about seven or eight hands.

X Q. 63. Can you now give the names of the hands that worked in Buxtons' blacksmith shop in the summer of 1858? If so, name them.

A. I could give the names of some of them, I think: Alanson Burr; I think George Baker was at work there at that time; Joseph Colt; Elias Baker, I think, was working there; there were
2530 others there that I think I knew; a man by the name of

Smalley worked there about that time; two or three Dutch boys, I forget their names now.

X Q. 64. Are you sure that Alanson Burr and George Baker worked in the blacksmith shop in the summer of 1858?

A. I am pretty positive that Burr was working there and that Baker was working there?

X Q. 65. While you had your lathe in Buxtons' shop did not you have plates and dies for cutting screws?

A. I had plates and dies for cutting threads from the size of one-sixteenth to one-half inch iron.

X Q. 66. Could not you cut a screw thread with your plate on iron larger than one-half inch?

A. I could not.

X Q. 67. Did you cut any screw threads for Buxton while you occupied his shop?

A. I made a set of taps and dies for Buxton somewhere about that time; I won't say whether it was before I went into that shop or while I was in there.

X Q. 68. That does not answer the question; the question is, Did not you cut any screw threads for Buxton while you occupied his shop? It was to the work you did for him that I inquired, not as to tools made for him. Please to state now whether you did any work in cutting screw threads for them.

A. Some of the work I did for them; I cut some screw threads on small bolts that was necessary to the work I did.

X Q. 69. Was that all the work you did for them, where you cut screw threads for them?

A. That is all the work I now recollect of doing, where screw threads were cut.

X Q. 70. Did not you cut screw threads on bolts for them where the bolts had been made and were sent to you for that purpose only?

A. No, sir; they generally did that work themselves.

X Q. 71. Do you mean that the blacksmiths cut the threads on their own bolts when they had made them?

A. Yes, sir.

2531 X Q. 72. Then when they wanted screws cut they did not come to you for that work, did they?

A. No, sir; not to my knowledge.

X Q. 73. Look at the plot here shown you and state whether that plot is a correct map of the C. & T. Buxton premises and shops as they were when you had your lathe in their shop.

(Plot marked Exhibit "A" here shown witness.)

A. I think not, according to my recollection.

X. Q. 74. Will you now take pen and red ink and indicate on this plot wherein it is not correct and make such changes as will make it correct in your opinion?

A. Yes, sir; I will; the blacksmith shop was shorter by as much as the distance between the red line I have drawn across it and the west end as originally shown on the plot; I should say that the well in which was the force pump was located where it is indicated by the red mark nearly under the corner of the shop as extended; the tire tub I should locate as a little south and east of where it is located on the plot, as indicated by red mark number "3."

X Q. 75. You stated in your direct examination that Timothy Buxton sold your lathe. To whom did he sell it and when?

A. He sold it to C. P. Hurd; the exact time I couldn't state; I don't recollect.

X Q. 76. Who was C. P. Hurd and where does he now live?

A. C. P. Hurd, as I understood, was a son of Chester Hurd; where he now resides I can't tell, as I haven't seen him in about twelve years.

X Q. 77. Where did he reside when you last saw him?

A. I think in the town of Warsaw.

X Q. 78. Was Chester Hurd one of the firm of Breck, Gates and Hurd?

2532 A. He was at one time, I think, when the firm was first organized.

X Q. 79. What was the name of the Hurd that belonged to that firm in 1858?

A. There was a combined interest of the old man, Chester Hurd, and his three sons; they all held an interest; what it was I couldn't tell.

X Q. 80. Do you know where either of them reside now. If so, state.

A. I do not.

X Q. 81. What kind of a lathe was this that Timothy Buxton sold to C. P. Hurd? Describe it fully.

A. In the first place it was what is known as an engine lathe; the bed of the lathe is built up from wooden pieces of pine plank four and a half inches wide, glued together until they were twelve inches deep; two of these formed the sides of the bed of the lathe; on the top of those sides of the bed were cast-iron ways about four inches wide, three-quarters of an inch thick, with ribs raised on top forming a track for the carriage to work back and forward; the end of the lathe was two cast-iron heads bolted with joint bolts into the ends of the side timbers; it stood on four legs, of cast iron, a little crooked or bow legged, and there were cast-iron girts put across the bottom of the legs to hold them from spreading; the head block was made of cast iron, usual form of old-style lathes. The mandrill, or spindle, was of common size of two-foot lathe; there was back gear hung on the backside; the pulley was made of pine glued up and turned off; it was fed by a rack and pinion and driven by a belt and worm gear; the tail block was the usual make; the carriage and chisel stand the same as those generally used on old-fashioned lathes.

X Q. 82. Did not you have with this lathe the block and tools for boring holes in iron either lengthwise or crosswise of a bar of iron?

A. Had no blocks, but then we could bore iron either crossways or lengthwise.

2533 X Q. 83. With the same appliances that you could hold the iron to bore it, could not you hold a bolt or bar of iron to cut a screw thread on it?

A. You could hold it to cut the threads, but had not the lead bar nor no gear for that purpose.

X Q. 84. Did you need any gear for that purpose that you did not have, except the dies and a plate to hold them?

A. If you have the dies and plates you can cut the screws without the lathe.

X Q. 85. Do not they have plates to be used in a lathe for holding dies so as to cut the screw threads with the machine?

A. They have machines for cutting threads on bolts, but they are styled as bolt-cutters, made expressly for that business.

X Q. 86. Do not they have plates that can be attached to such a lathe as yours was with which theycut screw threads with—the lathe—by inserting dies into this plate?

A. I have never yet saw any tools of that description.

X Q. 87. Then I understand you that you could not cut screw threads on bolts or pipe on your lathe as it was in 1858, when in Buxtons' shop, could you?

A. No, sir; I could not.

X Q. 88. Would it take any different plate or dies to cut screw threads on iron pipe than on a bolt of the same diameter?

A. It depends upon the use you want the thread for. For a nut on a bolt or pipe it might amount to the same thing, but on a pipe where you want a steam or water joint the dies are made larger upon one side so that when you cut the width of your dies onto the pipe it leaves the thread a little tapering; that die is made solid and all pipes cut with that die are one size; made the size to fit the
2534 tap that cuts the thread in elbows and coupling gas pipe;
this thread being tapering when it is screwed up tight, forms a water or steam joint.

X Q. 89. Could not you cut a thread with the same die on a bolt as well as on a pipe?

A. You could cut the same thread on a bolt if it was exactly the same size.

X Q. 90. Then I understand that it makes no difference in cutting a screw thread whether it is cut on a bolt or pipe, if the bolt and pipe are the same size; am I correct in that?

A. I think I have answered that once. I think as a general thing it will make a difference.

X Q. 91. Now, will you explain what difference it will make in cutting the screw thread whether the thing you cut it on is a pipe, tube, or bolt, provided they are of the same size?

A. The difference is in pipe. In cutting pipes all dies made for that use are made with finer leads; in cutting an inch-and-one-quarter bar of solid iron they use a die cutting from seven or eight threads to the inch; that same die run upon a pipe an inch and one-quarter in diameter the depth of the thread would cut through the shell of the pipe.

X Q. 92. Supposing you take the die that is used in cutting a screw thread on an inch-and-one-quarter pipe and run that onto a bar of iron an inch and one-quarter in diameter, will it cut the same kind of thread that it cut on the pipe?

A. With a solid die it would cut the same thread on a bar of iron as it cut on the pipe.

X Q. 93. Supposing the die was not solid and you had used it on a pipe, and then, without changing the die or its set in the plate, would it not cut the same kind of a thread on a bar of iron of the same diameter as it cut on the pipe?

A. There would be a variation in the size of the thread on the rod from what it was on the pipe.

The further cross-examination of this witness was postponed until Thursday, June 24th, A. D. 1880, at 9 o'clock a. m.

2535 Thursday, June 24th, A. D. 1880, at 9 o'clock a. m., the parties met pursuant to adjournment.

X Q. 94. You have stated that you occupied a room over the machine-shop in Buxtons' building. Where were the stairs by which you went out and into your room?

A. The stairs run from the west end of the shop; they run west down to the ground.

X Q. 95. Where did they land with reference to the blacksmith shop?

A. The landing was about six feet east of the east end of the blacksmith shop and the width of the stairs south of the blacksmith shop. The stairs were about eight feet wide.

X Q. 96. Where was the door that went into the blacksmith shop?

A. There were double doors in the southeast corner, at the east end of the blacksmith shop.

X Q. 97. In going from your room to Breck, Gates & Hurd's shop which side of the blacksmith shop did you usually go?

A. I generally went through the shop.

X Q. 98. If you did not go through the shop which side did you go?

A. On the south side.

X Q. 99. Was there any fence between the land occupied by Breck, Gates & Hurd and the shop of C. & T. Buxton?

A. Yes, sir; there was.

X Q. 100. How did you pass this fence—by a gate or otherwise?

A. Otherwise.

X Q. 101. State how it was.

A. The fence was generally down where we crossed; the two top boards were generally off.

X Q. 102. Please take a pen and red ink and mark on the plot where the opening in the fence was.

2536 A. I have done so; it was near the north end of Buxtons' lumber shed.

X Q. 103. When you had your lathe in Buxtons' shop did not you agree to do the work they had to do in preference to other work when they wanted it?

A. They had no preference over any other customers.

X Q. 104. How came you to leave Breck, Gates & Hurd's and put your lathe in Buxtons' shop?

A. I left for the reason that the room that I occupied in Breck, Gates & Hurd's shop was inconvenient to get at with heavy work, such as I had to do from general custom.

X Q. 105. When you was in Buxtons' shop did they not take work to do and then have you do and charge to them such work as belonged to your department?

A. Well, their work of cutting off boxes for wagon hubs, I suppose, is work they had contracted to do; all such work I charged to them.

X Q. 106. Did they not take threshing-machines and other machinery to repair and have you do some of the work and charge the same to them while the other work was done by other persons?

A. They never took any such contract to my knowledge.

X Q. 107. Did not they work at repairing machinery for farmers and others?

A. They done no machinery repairing for farmers or others to my knowledge.

X Q. 108. Do you mean to state that while you occupied a room in Buxtons' shop that farmers did not bring machines, such as mowers, reapers, and threshing-machines, to their shop and have them repaired?

2537 They brought machines to that shop and requested me to repair them, but so far as requesting them to repair them, if they did so, it was unknown to me.

X Q. 109. Supposing some machine wanted a piece of wood-work repaired, did you do that also?

A. Yes, sir; I had wood, bench, and tools in my shop for that purpose.

X Q. 110. Where did you get your material to work with?

A. I generally kept lumber in small quantities on hand; when I didn't have I sometimes got it of Hurd & Co.; sometimes of C. & T. Buxton and had it charged to me.

X Q. 111. Where did you store these machines while they were undergoing repairs?

A. West of the Baptist church lot and east of Buxtons' lumber shed, as noted by red line number "4" on the plot.

X Q. 112. You spoke of getting water at the dug well near the southwest corner of the blacksmith shop; did you get water there for any other than drinking purposes? If so, state what.

A. Yes, sir; I used a good deal of water for polishing, also in the trough for the grindstone.

X Q. 113. How many hands did you employ to help you in your work?

A. I employed no men, except at a day or two at a time.

X Q. 114. In going from your house to your room in the shop state what course or way you went.

A. I started from the house and went east to Main street and then nearly north till I reached the corner of Buxtons' wood shop, and then west on the north side of the wood shop to the east end of the blacksmith shop, then south to the foot of the stairs, then upstairs east till I reached the room I occupied.

X Q. 115. During your occupancy of this room did you have a good deal of work to do or were you idle much of the time?

A. I had, generally, all the work I could do; idle very little of the time.

2538 X Q. 116. In doing this work did you have any of it done by Buxtons or their men?

A. My blacksmith work which I had to do they done a part; some I had done at Whiting's shop.

X Q. 117. When you got blacksmithing done at their shop, was it charged to you or did the owner of the machine pay them for it?

A. Sometimes it was charged to me—most generally. Once in a while a job, where a man had to deal with Buxtons and rather pay them than pay me, such jobs they generally got done themselves and bring the work to me to finish up.

X Q. 118. When you saw the drive well put down in Buxtons' blacksmith shop, where was you at work at that time?

A. I don't think I was at work anywhere.

X Q. 119. How came you to be at the Buxton shop at that time?

A. I think more out of curiosity than anything else.

X Q. 120. Was that the first driven well you had ever seen put down?

A. I had seen one before in the course of their putting it down; I was not present all the time they were putting it down.

X Q. 121. Was this the second driven well you had seen put down there?

A. To the best of my recollection it was.

H Q. 122. In what part of the addition to the blacksmith shop was this well put down?

A. On the north side, nearly, not far from the west line of the old blacksmith shop.

X Q. 123. What kind of a pipe was it that they drove into the ground there?

A. An iron pipe, usually styled gas pipe.

X Q. 124. About how far did they drive it into the ground?

A. I couldn't state how far down it was driven; I did not measure the pipe; well, I suppose it was about fifteen feet.

X Q. 125. How many pieces were there of this pipe?

A. I could not say; I think there were three pieces—might have been more.

2539 X Q. 126. How was the point fixed before driving it? Describe it fully.

A. I couldn't say, because they had the point drove into the ground before I was there.

X Q. 127. Was it a galvanized pipe?

A. I think not.

X Q. 128. Was it new or old pipe?

A. I couldn't tell; it is hard telling the age of the pipe by looking at it.

X Q. 129. How often did you see that well while you lived in Warsaw?

A. I don't know that I ever saw it after the day it was put down.

X Q. 130. Is it not possible Buxtons had tools in their shop while you had your lathe there that you did not know of?

A. It's possible, but not probable.

X Q. 131. Is it not possible that they did a large amount of work of different kinds that you did not know of?

A. Not no large amount.

X Q. 132. Then, while you was there but about one year and was yourself very busy most of the time, and Buxton had several shops and employed a number of different men, you say it is not probable but what you knew all about their tools and their work, do you?

A. I don't claim that I knew all about their work; I don't think they had any tools in the shop but what I was acquainted with.

X Q. 133. Did you move your lathe away from their shop?

A. I did not.

X Q. 134. Did you turn it over to them for what you owed them?

A. I gave them a mortgage on the lathe to secure the rent of the shop and for what I owed them for stock and work.

X Q. 135. When did you give this mortgage; was it when you first went into their shop or about the time you left? State as nearly as you can.

A. Not a great while after I went into the shop.

2540 X Q. 136. Did you owe them anything at the time you went into their shop?

A. I think I was some in debt with them at that time.

X Q. 137. How did it happen, then, that you had to give up the lathe at the end of the year, if you had all the work you could do?

A. I didn't have to give it up.

X Q. 138. Why did you give it up?

A. I gave it up because I had a chance to hire a shop with more tools, better facilities for doing work, and getting rid of opposition in work, thinking I could control the work of both shops.

X Q. 139. While you was in Buxtons' shop did you have any use for dies that would cut a screw thread on gas pipe?

A. I think I did on one or two occasions.

X Q. 140. On what occasions? State fully.

A. I think at one time for connecting some pipe on the engine used by Adams & Fargo. I don't remember; it may be once or twice on Hurd's engine.

X Q. 141. How did you manage on those cases?

A. I think on Adams & Fargo's engine we ordered the pipe from Buffalo, with other fixings. I think in one of the other cases we spliced two pipes together by shrinking the bands on the ends of the pipes, then upsetting the end of the pipe against the end of those bands, then packing the ends and drawing them together with a flange.

X Q. 142. How far is Warsaw from Buffalo, New York?

A. It is generally called forty-five miles.

X Q. 143. Had they direct railroad connection in 1858?

A. Yes, sir; I think they had.

(The defendants offer in evidence a plot of Buxton's premises at Warsaw, New York, testified to by the witness, E. R. Benson, hereto attached, marked Exhibit "A.")

2541 Redirect examination:

R. D. Q. 1. Mr. Benson, is the mill or shop of Breck, Gates & Hurd, or was it when you left Warsaw, standing on the premises where it was while you were engaged in business in it; and, if not, what became of it?

A. No, sir; it was not standing at that time; it was destroyed by fire, I think, in the fall of 1859.

R. D. Q. 2. State whether or not you were present at the burning of the Breck, Gates & Hurd mill.

A. I was there soon after the fire broke out and remained there until the building was burned down.

R. D. Q. 3. State, if you can, any persons that were present at the fire and how many were present, as near as you can.

A. C. P. Hurd, Franklin Hurd, Frederick Nicholson, A. Y. Breck, Seth M. Gates, Henry Garetsee, E. A. Benson; there was probably a thousand people present before the building was burnt down.

R. D. Q. 4. State whether or not during the fire water was obtained or used for the purpose of extinguishing the fire; and, if so, from what source or sources it was obtained.

2542 A. Water was pretty freely used; the water used where I was located was brought from the main creek, about five rods from the shop, on the other side of the shop; they had a line formed to the mill-race at the corner of the Baptist church and Main street; they brought it from other places in small quantities, but not to amount to anything.

R. D. Q. 5. State whether you know of there being any line formed for getting water at any other place than the creek and race.

A. I do not.

R. D. Q. 6. State whether you yourself carried or obtained water from any place to use for the purpose of putting out the fire; and, if so, from what place or places.

A. I carried water from the creek and put on the fire to save the lumber shed near the corner of the main shop; after the main shop was burned down I went to the east side of the shop, but carried no water, being about played out; there they had a line formed for carrying water, handing it from one to another, applying it on the Baptist church sheds and Buxtons' blacksmith shop.

R. D. Q. 7. State whether or not at any time during the fire you pumped or obtained water from any well or pump back of or near the Buxton blacksmith shop; and, if so, describe the well or pump.

A. I pumped no water from any well during the fire.

R. D. Q. 8. State whether or not you knew of any other persons pumping or obtaining water during the fire from any well or pump back or near the smith shop; if so, describe the pump and well.

2543 A. I don't know any one's pumping any water—I did not see any one, at least—from any well or pump.

R. D. Q. 9. State whether you have or not at any time since you left Warsaw, and while you resided in the city of Detroit, received any letters or letter from Timothy H. Buxton; if so, state, as near as you can, when and the number of letters.

A. I received a letter from Timothy H. Buxton about a month after it was written; I think I received the letter in the month of January, 1880; the envelope was addressed to E. A. Benson; it was forwarded on to him at St. Louis, Mo.; he opened the letter and found on the inside it was addressed to Elihu R. Benson; he resealed the letter, put it in another envelope, and sent it to my address, and I received the letter; I received no other letter from him personally; C. P. Williams received a letter directed to me in his care; he came to my house and read the letter to me, stating to me that nobody else could read Tim Buxton's writing except those that were acquainted with it; that is all the letters I received, directly or indirectly.

Hereupon the parties adjourned until 2 o'clock p. m.

At 2 o'clock p. m. the parties met pursuant to adjournment.

R. D. Q. 10. Where are the letters which you say you received from Mr. Buxton?

A. I don't know where they are; I searched to-day noon about an hour, but I couldn't find them anywhere.

R. D. Q. 11. State, as near as you can, the contents of the first letter you received.

2544 A. Well, I can get somewhere near it. He wanted me to do him a favor and to look up my papers at the time I occupied his shop, and the idea was in reference to my remembrance of a driven well that was put down in the west end of the blacksmith shop, or something to that effect, and wanted I should answer the letter.

R. D. Q. 12. State whether or not you read the letter which you say was sent in care of C. P. Williams, or whether it was read to you by some other person; and, if so, by whom?

A. I saw the letter in Mr. Williams' hands. He read to me as near as he could what purported to be the letter. I did not read it myself.

R. D. Q. 13. State, Mr. Benson, what became of this letter, if you know, and where it is.

A. I have no knowledge of where that letter is.

R. D. Q. 14. You stated in your cross-examination that the Buxtons usually cut the threads on their bolts themselves. State what tools or dies they had for cutting screw threads, if any.

A. They had the usual plates and dies—three or four; I
2545 think they had four different size plates, commonly used in
blacksmith and wagon shops for cutting bolts and nuts by
hand. They had dies for cutting bolts from five-sixteenths wire to
an inch and one-eighth in diameter.

R. D. Q. 15. State whether or not they had dies with which you could cut a screw thread on pipe so as to form a steam or water joint.

A. We could on small but not on large pipe. We could on a small pipe, up to five-eighths of an inch in diameter.

R. D. Q. 16. State whether or not you had ever seen any driven wells after the time you saw the one in front of the Bingham House up to the time you say the one was put down in the Buxton blacksmith shop after they had been driven.

A. I never did, to my recollection.

Redirect closes.

Recross-examination:

R. X Q. 1. Did you have any trouble or difficulty with either of the Buxtons in settling your matters with them?

A. Not any whatever.

R. X Q. 2. Was you on good terms with them when you left Warsaw?

A. As far as anything I ever knew. I think the last job I done in Warsaw was for Buxtons, and they paid me for it.

R. X Q. 3. When did the complainants or their counsel first talk about this matter and your testimony in this suit to you?

A. I think about six weeks ago.

R. X Q. 4. When you received this first letter from Mr. Buxton did you reply to it or answer it?

A. I did not.

2546 R. X Q. 5. Did you answer the second letter you received from him?

A. I did not.

Second redirect examination:

2d R. D. Q. 1. State whether or not it was some considerable time before you saw and talked with the complainants' counsel that you received the last letter from Mr. Buxton.

A. It was some considerable time.

(S'g'd) ELIHU R. BENSON.

Hereupon the parties adjourned the examination of witnesses until June 25th, A. D. 1880, 9 o'clock a. m.

The above and foregoing testimony subscribed and sworn to before me this twenty-fourth day of June, A. D. 1880.

[SEAL.] (S'g'd) LUCIUS H. COLLINS,
Notary Public, Wayne County, Michigan.

2547 At 9 o'clock a. m., Friday, June 25th, 1880, the parties met pursuant to adjournment.

Then came CHARLES P. WILLIAMS, who, being duly sworn, testified as follows:

Q. 1. What is your name, age, place of residence, and occupation?

A. Name, Charles P. Williams; age, 47; Detroit, Mich.; painter by occupation.

Q. 2. State whether or not you formerly resided at Warsaw, New York; and, if so, at what time?

A. I went to Warsaw the 25th day of March, 1858, and I lived there until the 1st of March, 1866; then I moved to Buffalo, N. Y., and was there until the 22d of October, 1866; moved back to Warsaw; I lived there from that time till the 10th of January, 1880.

Q. 3. State whether or not, while you resided at Warsaw, you were acquainted with Chauncy C. Buxton and Timothy H. Buxton; and, if so, how long have you been acquainted with them?

A. I was acquainted with them; I think I knew them first in 1850; I had no special acquaintance with — at that time; I became acquainted with them in 1858.

Q. 4. State in what business the Buxtons were engaged while you were in Warsaw, and state whether or not they were engaged together; and, if so, give the names of the firm.

A. They were engaged in manufacturing wagons and carriages, principally, under the firm name of C. & T. Buxton; also, had another business connection, a hardware store; the firm name was O. S. Buxton & Co.

Q. 5. State where the place of business of C. & T. Buxton was located.

A. Located on the west side of Main street, in Warsaw, New York, opposite of Livingston street.

Q. 6. State whether or not you were at any time in the employ of C. & T. Buxton; if so, during what time?

A. Was in their employment from March 25th, 1858, until March 1st, 1866.

2548 Q. 7. In what business were you engaged for them?

A. Painting.

Q. 8. State how many shops the Buxtons occupied at their place of business during the time you were in their employment.

A. There was a blacksmith shop and a wood shop, a paint shop, trimming shop, a machine shop; that's all.

Q. 9. State whether or not the wood shop, paint shop, and trimming shop and machine shop were all in one building; if so, give the size of the building.

A. They were all in one building; I could not give the size accurate.

Q. 10. State whether or not you at any time were connected in business with Chauncy C. Buxton and Timothy H. Buxton or either of them; and, if so, during what time and in what business were you engaged?

A. I was a partner of T. H. Buxton in the carriage and wagon business; we entered into partnership, I think, October 22d, 1866; were in partnership three years—that is, as near as I can recollect; I have no papers available to me now to show.

Q. 11. State at what place you carried on business while you were a partner of Timothy H. Buxton.

A. We occupied the premises formerly occupied by C. & T. Buxton at Warsaw, N. Y.

Q. 12. State whether or not at any time Chauncy C. Buxton retired from business; and, if so, at what time?

A. He retired from the wagon business about October 22d, 1866; Ferris W. Norton and myself bought out his interest.

Q. 13. State what property Ferris W. Norton and yourself purchased of Chauncy C. Buxton.

2549 A. We purchased his entire interest in all the real estate, stock, tools, lumber, iron, trimmings, paints, and all material connected with the manufacture of carriages and wagons.

Q. 14. State whether or not during the time you were in the employment of C. & T. Buxton they had in their shop an engine.

A. They did.

Q. 15. State, if you know, at what time that engine was put into their shop.

A. It was put in there some time, I think, in April, 1858.

Q. 16. State whether or not they had any engine in their shop prior to the putting in of this one spoken of in April, 1858.

A. I never had any knowledge of any.

Q. 17. State whether or not during the time you were in the employment of C. & T. Buxton you were familiar with the different shops and premises occupied by them at their place of business.

A. I was.

Q. 18. State from what source or sources water was obtained for use in the shop during the time of your employment with the Buxtons.

A. From the well, from the mill-race, and the reservoir, commonly called tire tub.

Q. 19. State whereabouts the well of which you speak was situated.

2550 A. The well was situated on the south side of the blacksmith shop, about three feet, perhaps four, from the west end of the shop.

Q. 20. Describe the well of which you speak.

A. It was an ordinary dug well, walled up with stone, about ten or twelve feet deep; it had a pump in; I think that sometimes I saw it without one; generally had one; sometimes it would be worn out; I think there were several different pumps put in there while I was there.

Q. 21. State whether or not at any time during your employment with the Buxtons there was any other well or pump at the west end of or near the blacksmith shop than the one you have just described.

A. I have no recollection of ever seeing any.

Q. 22. State whether or not if there had been any other well or pump back of or near the blacksmith shop during your employment with the Buxtons you would have seen and known it.

A. I think I would.

Q. 23. Did you obtain water for drinking purposes in your shop from this well you have described as being at the back end of the blacksmith shop?

A. I did while I was in the employ of C. & T. Buxton.

Q. 24. State whether or not during the time of your employment with the Buxtons you were acquainted with the different kinds of machinery used and operated by the Bustons.

A. I used to see all the machinery they had in the shop.

2551 Q. 25. State whether or not they had in their shop any dies or plates for cutting screw thread on pipe.

A. I don't remember of ever seeing any that would cut thread on large pipe.

Q. 26. State what dies or plates, if any, they had for cutting screw thread.

A. I think I used to see plates there that would cut threads on bolts from a quarter of an inch up to an inch and one-eighth in diameter.

Q. 27. At the time you and Ferris W. Norton purchased the interest of Chauncy C. Buxton in the business of C. & T. Buxton what dies or plates for cutting screw thread, if any, did they then have?

A. They had plates and dies that would cut sizes from a fourth of an inch to an inch and one-eighth in diameter. I am inclined to think we had a plate that would cut three-sixteenths of an inch in diameter.

Q. 28. State whether or not you had anything more than the ordinary dies and plates for cutting threads on screws and bolts.

A. We had not that I ever knew of.

Q. 29. Was there a time when an addition or extension was built to the brick blacksmith shop? . If so, state when.

A. There was some time in the fall of 1867—perhaps in October and November.

Q. 30. During the time that you were connected in business with Timothy H. Buxton from what source or sources did you obtain water for use in your shops?

2552 A. I obtained water from the well outside the blacksmith shop, which has already been described, and also from the driven well that was inside the blacksmith shop; sometimes from race and the reservoir.

Q. 31. State whether or not at any time while you were in business with Timothy H. Buxton any well was put down on the premises occupied by you at your place of business. If so, describe the well and state by whom it was put down.

A. T. H. Buxton & Co. put down the driven well in the Smith shop about the time the addition was put on—the fall of 1867. The well consisted of, I think, an inch and one-half gas pipe perforated through the sides at the lower end, on which was an iron point inserted. The point was put in for the purpose of facilitating the driving. The pipe was driven into ground perhaps twelve feet. The pump was screwed on the upper end and the well was pumped until it proved a reservoir at the bottom. It was superintended by a man by the name of John West, assisted by our helpers—by the blacksmiths.

Q. 32. State where John West resided at that time and in what business he was engaged, if you know.

A. Well, so far as I remember his business then, he was putting down those driven wells. I don't remember much about his business. He resided in Warsaw, N. Y.

Q. 33. State whether or not you hired John West to put down this well; and, if so, how much you paid him.

A. According to my recollection, he put down the well. I couldn't state how much we paid him. We hired him, I think, to put the well down.

Q. 34. State whether you are acquainted with what is commonly known and called the driven well.

A. I had two of those wells on different premises that I owned, and was acquainted with them as any one would be by using them.

2553 Q. 35. State whether or not the well you have mentioned as having been put down in the smith shop by John West was what is commonly known and called the driven well.

A. It was.

Q. 36. State whether or not during the time you were in the employ of C. & T. Buxton, and up to the time this well described by you was put down in the smith shop, there was any driven well upon the premises occupied by C. & T. Buxton or by Timothy H. Buxton, Ferris W. Norton, and yourself.

A. I never saw any other wells on the premises to my recollection, excepting those I have already described.

Q. 37. State, if you can, when and where you first saw a driven well.

A. I saw the first driven well I have any recollection of near the Bingham House, in Warsaw, N. Y., on Genesee street, Warsaw, N. Y. I couldn't tell just what year it was for certain, but the impression I have is that it was in 1865.

Q. 38. State, if you can, by whom it was put down.

A. I could not state.

Q. 39. Did you see the parties that put it down or any parties that assisted in putting it down?

A. I don't know that I did.

Q. 40. Mr. Williams, are you acquainted with the handwriting of Timothy H. Buxton?

A. I have been acquainted with his handwriting a good many years.

Q. 41. State whether or not you have received any letters from him since you have been in the city of Detroit.

2554 A. I have.

Q. 42. Look at that paper and state, if you can, in whose handwriting it is.

(Papers shown witness and marked for identification.)

2555 (Thereupon the parties adjourned the examination of this witness until 2 o'clock p. m., Friday, June 25th, 1880.)

At 2 o'clock p. m. the parties met pursuant to adjournment.

Q. 43. State, Mr. Williams, whether or not at the time this driven well was put down near the Bingham House you heard it talked of by the people in Warsaw as being a new invention or any talk upon that subject.

A. Yes; I think I did.

Q. 44. State whether you heard any persons there state or claim that they had ever seen or known of such a well being in the village of Warsaw prior to that time.

A. I did not hear any one make such a statement.

Direct rests.

Cross-examination:

X Q. 1. Look at the plot here shown you and state if it represents the Buxton premises as they were in 1858 when you went there to work.

(Plot marked Exhibit "A" to deposition of E. R. Benson here shown witness.)

2556 A. It is as near correct as I could make it without surveys and accurate measurement, with one exception: The fence nearly north from the west end of the blacksmith shop and running thence west, north of the tire platform and tire tub, was not there, I think.

X Q. 2. In what part of the shops did you have your paint-room?

A. In the east end of the second story of the wood shop and part of the west end.

X Q. 3. Where were the stairs by which you went up into your paint shop?

A. One pair of stairs was in the southwest corner of the machine shop. Those were the stairs by which I generally went up into the shop.

X Q. 4. Was there any other pair of stairs? If so, state where they were.

A. There was, on the west end near the south corner, on the outside.

X Q. 5. While you were at work there in 1858 and 1859 was you kept busy by your work?

A. I was.

X Q. 6. While you worked there in 1858 and 1859 did you have occasion to examine the tools in the blacksmith shop or wood shop?

A. I don't know that I had occasion to, but I had the privilege to, and used to do so when things interested me.

X Q. 7. Do you now remember of making an examination of the plates and dies used for cutting screw threads in either of the years 1858 or 1859?

A. I can remember using screw plates and taps. Sometimes I would strip threads from bolts in putting work together and use screw-plates to cut threads and fit up the bolts again, so that I could use them by putting on smaller nuts.

2557 X Q. 8. Did this require you to make an examination as to what plates and dies they had in the shop, or did you just get the size you wanted and use that?

A. I frequently had to use all the sizes of screw plates we had.

X Q. 9. How large a size was the largest you now remember of using in 1858 and 1859?

A. I have no definite recollection of using anything larger than three-quarters or seven-eighths of an inch in diameter.

X Q. 10. Did not they have a plate and dies that would cut a screw thread on iron one and one-fourth inches in diameter at that time?

A. They had a plate that they used to cut threads on wagon skeins with, and possibly had a range from seven-eighths to an inch and one-eighth.

X Q. 11. Could they cut a right and left handed screw with these dies and plates?

A. They could with two sets of dies; they had a right and left set.

X Q. 12. You state that you had two driven wells on your premises at different times; now state whether you ever had any experience in making such wells.

A. I had two wells; those were on my own individual premises; I had no experience in making such wells.

X Q. 13. When John West put in the well for T. H. Buxton & Co. who furnished the pipe and pump?

A. I am not sure who furnished pipe and pump; my impression in regard to it is that we furnished it and hired him by the day, I think.

X Q. 14. How long did it take him to put it down; was it more than a day?

A. I couldn't say.

X Q. 15. Where does said John West now live?

A. The last I knew of him he lived in Warsaw, New York.

X Q. 16. What did Ferris W. Norton do while he and you were in company with T. H. Buxton?

A. He worked at his trade as a wood-workman some of the time.

X Q. 17. Where is he now?

2558 A. I suppose he is in Leadville, Colorado.

X Q. 18. Where did you live when you worked for C. & T. Buxton in 1858 and 1859, and which way was it from their shop?

A. I boarded at a boarding-house on the east side of Main street, in Warsaw, nearly opposite their shop, for two years from March, 1858.

X Q. 19. Was there any wagon road or did teams pass along the south side of their shop?

A. There was not when I first went there to work, but there was a strip of land bought of the Baptist Church Society sufficiently wide to make a road, I think, in the summer of 1858.

X Q. 20. Was that opened as a road; and, if so, when?

A. It was not opened as a road, but sometimes was used as a road; the purpose I suppose it was purchased for was making more yard room.

X Q. 21. Was this lane north of the shop used for getting out and in by a large number of persons?

A. Well, there was considerable travel through that lane by parties drawing lumber to the premises of Breck, Gates & Hurd, and also the same purpose for C. & T. Buxton.

X Q. 22. In 1858 and 1859 did C. & T. Buxton do a general blacksmith business at their shop?

A. They did everything in the shape of custom blacksmithing, except horseshoeing; also done carriage and wagon ironing for themselves.

X Q. 23. You spoke in your direct examination of their having a hardware store—how far was that from the shop?

A. Oh, perhaps three hundred feet or four hundred feet; I couldn't state the exact distance.

X Q. 24. What kind of hardware did they keep—was it some select articles or was it a general variety of hardware?

A. They kept a general variety of hardware, such as is generally kept in country stores.

X Q. 25. About what was the population of Warsaw, N. Y., in 1858 and 1859?

A. Perhaps twelve or fifteen hundred people.

Cross-examination rests.

2559–2562 Redirect:

R. D. Q. 1. Do you recollect the fact that the mill of Breck, Gates & Hurd was burned? If so, state at what time.

A. I do recollect it. I think it burned down in the fall of 1859.

R. D. Q. 2. State whether or not you were present at the fire.

A. I was.

R. D. Q. 3. State whether or not, during the fire, you pumped or carried any water from any well near the blacksmith shop of Buxtons' to use in putting out the fire. If so, describe the well.

A. I did not.

Redirect examination closes.

(The complainants' counsel here announced that the examination of witnesses at the city of Detroit, Michigan, closes.)

(S'g'd) CHARLES P. WILLIAMS.

Sworn and subscribed before me this 25th day of June, A. D. 1880.

(S'g'd) LUCIUS H. COLLINS, *Notary.*

I hereby certify that the foregoing is the evidence taken before me under and by virtue of the notice hereto annexed, and that it is all the evidence so taken before me.

[SEAL.] (S'g'd) LUCIUS H. COLLINS,
Notary Public, Wayne Co., Mich.

2563 Complainants offer CALVIN W. BISBY as a witness and request that he be sworn by the notary.

CALVIN W. BISBY, being duly sworn, deposes and says:

Q. 1. Please give your name, age, place of residence, and occupation.

A. Calvin W. Bisby; 56 years; New Haven, Connecticut; carriage making.

Q. 2. Please state if you have ever been—and, if so, during what years have you been—a resident of Warsaw, Wyoming Co., N. Y.

A. 1849 to 1878.

Q. 3. Were you acquainted with Timothy H. Buxton and Chauncy C. Buxton, who composed the firm of Timothy H. Buxton & Co.?

2564 A. I was until the company expired.

Q. 4. What business connection, if any, did you have with that firm?

A. I worked for them as carriage builder.

Q. 5. During what years?

A. Somewhere from 1849 to 1870.

Q. 6. Were you continuously in their employ during that time?

A. I was, with the exception of a few months.

Q. 7. Where was their place of business situated?

A. Main street, opposite Livingston street.

Q. 8. And their business was what?

A. Wagon and carriage making.

Q. 9. About how many hands did they employ and in what capacity?

A. Sometimes they had as many as twenty in all parts of the works; sometimes there were six wood-workers, two to three trimmers, three to four painters; sometimes there was six to eight in the smith shop, helpers and blacksmiths.

Q. 10. Can you give the names of any of the persons who worked there during the year 1858? And, if you can, please do so.

A. Two, I am certain, were there in the wood shop, Dibble and Norton; one in the smith shop, Burr; think Williams was painter at that time; Tunks was trimmer.

Q. 11. Were you, during the years you were there employed, familiar with the entire premises occupied by the Buxtons?

A. I was.

Q. 12. Please state what buildings were occupied by them in their business, how they were situated in relation to each other and to the street.

A. The wood shop and blacksmith shop, the ware-room; the wood shop was on the south, the blacksmith shop was west, and the ware-room was north.

Q. 13. Did either of these buildings, and, if so, which, front upon the street?

A. The wood shop and ware-room fronted the street and were about from 50 to 70 feet apart.

2565 Q. 14. Where was the blacksmith shop situated, in relation to the wagon shop?

A. It was about twenty-five feet west.

Q. 15. Of what material was the blacksmith shop built?

A. Brick.

Q. 16. And about what was its size?

A. The original size was about 20 by 30 feet.

Q. 17. When you commenced working for the Buxtons were there any wells upon their premises; and, if so, where were they?

A. There was a well southwest of the blacksmith's shop about twelve to fifteen feet, perhaps not so far.

Q. 18. Please state what kind of a well this was and about what was its diameter and its depth.

A. It was a common well, stoned up, perhaps, about two and a half feet diameter and ten to twelve feet deep.

Q. 19. Was there any other well then upon the premises at that time?

A. At that time there was not.

Q. 20. What use was made of this dug well back of the blacksmith shop?

A. It was used for drinking and other purposes about the shop.

Q. 21. Were you in the habit of going to this well for water for yourself?

A. I was.

Q. 22. How was the water obtained from this well?

A. With a pole and hook and pail and sometimes a pitcher.

Q. 23. Was any change afterward made in the manner of getting water from well?

A. I don't think there was.

Q. 24. Were any other wells afterwards used for obtaining water for the uses of the persons employed on the premises and for other general uses?

A. There was.

Q. 25. Please state where they were.

A. There was a well dug south of the blacksmith shop.

2566 Q. 26. At what time?

A. After the shop was extended.

Q. 27. When was the shop extended and in which direction?

A. Can't tell just when—west.

Q. 28. To what distance was it extended?

A. I should think twenty feet.

Q. 29. This well south of the blacksmith shop, that was dug after the shop was extended, how was the water procured from it?

A. Pump; sometimes there was a wooden pump, sometimes an iron one.

Q. 30. And did this well supply water for drinking purposes and other uses about the shops?

A. It did.

Q. 31. How long did this well remain in use?

A. It was in use when I left their employment.

Q. 32. Do you know whether or not this well is now in existence or in use?

A. There is a building over it; don't know whether they use it or not; think not. It is under a stable.

Q. 33. Was there, during the time you were employed upon those premises, any other well upon them?

A. There was another well north and west of the wood shop. It stood back of a little dwelling-house.

Q. 34. Was this well in use by the Buxtons at that time?

A. Sometimes used to step there to get water to drink.

Q. 35. Is the little dwelling-house you have mentioned still standing upon the premises?

A. It has been moved away.

Q. 36. And is the well that you say was in the rear of it still in existence and use?

A. That is covered up by another building.

Q. 37. Did the Buxtons, when you commenced working with them, occupy the lot upon which this dwelling and well were situated?

A. No.

Q. 38. What building now covers the well that was formerly in the rear of this little dwelling-house?

A. The building that was the wareroom.

2567 Q. 39. When was this wareroom building built upon that lot?

A. I can't give you the year.

Q. 40. Was this wareroom building erected upon that lot or was it moved from another lot?

A. It was moved from a lot north.

Q. 41. Do you know of a wooden tank upon those premises to which water was supplied from the race which ran across the premises?

A. I do.

Q. 42. About what was its size and what was it used for?

A. It was about 4 feet deep, 4½ to 5 feet across; was used for cooling tire when they set tire.

Q. 43. Was water used from this tank for any other purposes; and, if so, how was it procured?

A. They used to use it in the smith shop, dipped up with a pail.

Q. 44. How far was this tank from the smith shop and in which direction?

A. It was about thirty feet southwest.

Q. 45. Do you know whether this tank was put in before or after the blacksmith shop was extended?

A. I guess about the time it was extended.

Q. 46. Did you know of a driven well on those premises during the time you were there employed; and, if you did, do you know who made it?

A. I did know of one being there; West put it in.

Q. 47. Where was this well situated?

A. Near the middle of the blacksmith shop.

Q. 48. What was the quality of the water furnished by this driven well which West put down in the blacksmith shop?

A. It was good water.

Q. 49. Previous to the extension of the brick blacksmith shop, was there any driven well near the west end of the blacksmith shop out of doors?

A. Not that I know of.

Q. 50. And were you in the habit of going to the dug well,
2568 which you say was situated near the west end of the blacksmith
shop down to the time when that shop was extended?

A. I was.

Q. 51. And if there had been a driven well or any other well or means of procuring water near the west end of that blacksmith shop in use from 1858 to 1864 or '5, could you have failed to see or know of it?

A. I could not.

Q. 52. Did you, previous to the driven well put down by Mr. West in the blacksmith shop, ever use, see, know, or hear of a driven well anywhere upon the Buxtons' premises?

A. No.

Q. 53. And were you during the year 1858 constantly employed upon those premises by the Buxtons?

A. I was.

Q. 54. When and where did you first see or hear of a driven well?

A. Parties putting a sample well near the livery barn, in the north part of the village, on the east side of Main street.

Q. 55. How long, if you know, was it previous to the putting down of the well by John West in the Buxtons' shop that this well on Main street was put down?

A. I don't know just how long it was, but a short time previous.

Q. 56. Did John West, at the time of putting down the well in the Buxtons' shop, claim to own a patent right upon the process or well?

A. He did.

Q. 57. From whom, if you know, did he claim to have purchased such right?

A. West bought the right from these parties putting down the well.

Q. 58. From the parties putting down what well?

A. Putting down the well near the livery barn.

Q. 59. When that well was put down on Main street near the livery barn did it excite much curiosity among the inhabitants of

Warsaw, and was it then treated as a new thing or a new method of procuring water from the earth?

A. It did; it was.

2569 Q. 60. Did you at or about that time hear any one claim to have used or seen a similar well in or about Warsaw or elsewhere?

A. I never did.

Q. 61. Were you conversant with the tools and machinery in use in the several departments of the Buxtons' wagon and carriage manufactory?

A. I was.

Q. 62. Did you ever see, hear, or know of the Buxtons having in their shop a lathe fitted for and on which screw threads on gas pipe could be and were cut?

A. I never did.

Q. 63. Did you ever see, know of, or hear of any dies or tools in those shops fitted for cutting screw threads on gas pipe or by which such threads were cut?

A. I never did.

Q. 64. Did you ever see, know, or hear of any gas-pipe tongs being used or being among the tools which were used about the Buxton shops?

A. I never knew of any.

Q. 65. Could such a lathe, such dies, or such tongs have been in use in those shops without your knowledge?

A. They could not.

Q. 66. Did you ever see, know, or hear of any such lathe, tools, or gas-pipe tongs being in use in any machine or other shop in Warsaw previous to the time when the gas company commenced business there?

A. I never did.

Q. 67. Was your knowledge concerning those shops such as would be likely to bring to your knowledge the ownership and use of any such tools had they been so owned and used?

A. It was.

Direct examination closed.

Mr. Buchanan, being here present, declines to cross-examine the witness. Mr. Buchanan states that at the time this witness was actually sworn N. W. Green was still under cross-examination; that such cross-examination and a redirect examination and cross thereon occupied so much time that he was unable to 2570–2585 return to his home in time to attend to the matters he was under engagement to attend to, and therefore has remained in the room a portion of the time, but declines to cross-examine, not from any factious spirit, but states that if he were regularly present he would have no questions to ask.

(S'g'd) CALVIN W. BISBY.

Subscribed and sworn to before me this 11th day of August, 1880.

[SEAL.] (S'g'd) LEONARD A. GIEGERICH,
Notary Public (31), *N. Y. Co.*

Examination adjourned to August 12th, 1880, at 10 a. m.
[SEAL.] (S'g'd) LEONARD A. GIEGERICH,
Notary Public (31), *N. Y. Co.*

2586 COMPLAINANTS' EXHIBIT MUDGE PAMPHLET AND ADVERTISEMENT. Dated August 6, 1880. [Seal.] (S'g'd) Leonard A. Giegerich, N. Y. Co. (31.)

Copy of Advertisement Pasted on Back of First Page in Pamphlet.

Caution to the public!

On the 24th day of October, 1865, letters patent of the United States were granted to me for an improved mode of sinking wells. My mode is described in my letters patent substantially as follows: Driving a pointed rod of iron into the ground until it has penetrated the water under ground, withdrawing the rod, and inserting a pipe of nearly the same size in its place, which completes
2587 the well; that then any kind of common pump may be used in drawing the water. The manner of driving and inserting the pipe is minutely described. My claim is stated and allowed as follows:

What I claim as my invention, and desire to secure by letters patent, is the process or mode of sinking wells where no rock is to be drilled, viz., driving a rod down to and into the water under ground, withdrawing it, and inserting a pipe in its place, substantially as herein described.

Mine is the only patent ever allowed by the Government of the United States for the mode or process of making a driven well.

The patent of James Suggett states his claim as follows, and
2588 he has never had anything else allowed:

"What I claim as my invention, and desire to secure by letters patent, is the perforated pipe *a*, with the pointed end *b*, constructed as a drill and united with a pump, all substantially as shown and described." Mr. Suggett did not claim the mode and process of sinking wells, because he very well knew that he learned it from me while acting as my hired man in 1861.

I must, therefore, reiterate my caution to all persons who may be sinking wells by process, that they must refrain from using it, no matter what claims they may have upon minor points. I am willing to deal liberally with all, either in granting licenses or selling territorys, but I shall insist upon my rights, which are
2589 above clearly set forth to the public.

My address is Cortland, N. Y., care of Reed Peck.

Cortland, Dec. 11, '65.
(S'g'd) BYRON MUDGE.

Copy of the Pamphlet Proper.

To the public:

My object in making the following statement is to protect myself in some measure from the injury that is being done me by men who seem determined to ignore all my rights to a valuable discovery in the art of sinking wells, made by me in the fall of '61.

My discovery is of a theory or truth not before known, and may be elucidated by the following proposition: If a pipe, properly prepaid, with a pump attached, is forced
2590 into the ground, down to and into the water under
ground, the result will be an inexhaustible well of clear water. Many persons, seeing the value of this discovery, and of my process for making it of utility, have seized upon them and are using them in connection with certain patented devices of their own, in order to make them saleable, if not valuable. This is not only a deep enjury to me, but it may become a matter of grave import to many of the public. The case may be understood by attention to the following:

In the fall of 1861 I was connected with the 76th Reg't N. Y. V., then organizing in Cortlandville; assisted in enlisting men, acting as lieutenant, none of the officers, however, being then com-
2591 missioned at that time; many reports were in circulation
about our soldiers being poisoned by drinking at wells and springs in the Southwest (they were probably mostly or entirely false), which led our colonel to suggest that some way be contrived, if possible, for readily obtaining water for an army without resort to wells and springs in the enemy's country, and he requested me, personally, to take hold of the matter and see what could be done. With this object in view, I submitted the following questions to a neighbor of mine—a mechanic and one acquainted with practical matters generally: "If I can work a pipe into the ground to a sufficient depth, can I, by attaching a pump to the top, draw a supply of water?"

2592 He thought the supply would be quite limited, and could
be drawn only at intervals, and would always be more or less muddy, as the pipe would be packed closely with dirt its whole length; and this, I found, was the opinion of all with whom I conversed. I decided to test it, and procuring an iron rod, and with the assistance of Major Carmichael and Adj. Robinson, of the 76th, I made my first experiment by forcing the rod down to water, thus making the hole to receive the pipe and pump. The result encouraged me to make further effort. In my second trial, made on my own premises, I was assisted by my brother, E. Mudge. My third was made at a neighbor's. Present: C. Townley, A. S.
2593 Rollo, R. Peck, and Frank Peck. My fourth at R. Peck's,
himself assisting. My fifth on the fair ground, assisted by my father, A. Mudge. Present: The 76th regiment. In these experiments, except the last, I used a tin tube and pump, the wells not being deep, nor were they intended for permanent wells. The well on the fair ground was put down for the use of the regiment. The pump in this last well was iron, with supply pipe of lead, there being no gas pipe in the Cortland market at that time. For the protection of the lead pipe I put down, first, a sheet-iron pipe with slots in the lower end for the admission of water to the lead pipe. This well yielded an abundant supply of clear water.

I next undertook to put down a well for Henry Woodruff,
2594 and hired James Suggett to assist me. Broke my rod in this

trial and abandoned the job for a time. I next tried for O. H. Seymour, again hiring James Suggett to help do the work; succeeded in reaching water and again put in draw pipe as on the fair ground. James Suggett admits that the last two wells were the first of the kind that he ever saw put down. The results of these experiments were such that the officers requested me to prepare suitable tools for sinking wells to take into the field with the regiment. I accordingly procured of F. E. Carroll, of Syracuse, thirty feet 1¼-inch gas pipe, made up in sections for convenience in transporting, a pump to attach to it, and in the lower end of the pipe Ira
2595 S. Hicks, of Cortland, welded a pointed iron plug and drilled some forty quarter-inch holes along its sides near the bottom of the pipe. My apparatus consisted of a pointed iron rod 1½ inches in diameter, made in sections, a perforated pipe in sections, with pointed end, and pump to attach to the pipe. These were put in the care of M. and A. S. Rollo, then of Cortland, to be forwarded to the regiment when ordered.

Late in the fall of 1861 I went to Washington with my regiment; returned home in the spring following, and was confined to my bed most of the summer of 1862 with inflammatory rheumatism. Before I had fully recovered Charles H. Parker borrowed my tools to put down a well on James Schermerhorn's premises,
2596 and hired James Suggett to do the work.

My first work, after my illness, was to procure me a mutch heavier rod and make me a small pile-driver to drive it with. In making my fourth trial with the pile-driver, in the fall of 1862, I injured my hand, stopping my work till the summer of 1863. These experiments had all been made on the flats in and about Cortland.

Before applying for a patent my friends advised me to more fully test the principle by working in various places off the flats, so as to determine with more certainty as to its value and the probability of its being generally adopted for sinking wells. With these views I went to Groton in the summer of 1863, taking James Suggett
2597 with me as an assistant. Failed in my first experiment in Groton, encountering difficulties I had not before met. My experiments in 1863 were made in Groton, Dryden, Harford, Solon, and other localities, extending into the winter and spring of 1864. In the meantime I had learned that Suggett had applied for a patent, and that his application was in the care of Hon. R. H. Duell, then our member of Congress, and in Washington. I wrote him protesting against Suggett's obtaining a patent for an invention not his, but mine, and one that had cost me a great deal of time and money.

Mr. Suggett's patent was issued March 29th, 1864, his claim being for "the perforated pipe *a* with the pointed end *b* constructed
2598 as a drill and united with a pump." This device is substantially the same as that which I had made in 1861 to take into the army, only the point of my pipe was not a drill.

The issuing of Suggett's patent was the occasion of some sharp controversy between us, and of several conferences with a view of compromising the matter. Our last conference was after I had enlisted under the call of 500,000 men and, I think, only the day before I was to join my regiment. We had agreed on terms and met to carry them out. Suggett seceded and I left him, declaring I would right myself and him, too, if I came out of the army alive.

I was appointed adjutant of the 185th Reg. N. Y. V.; was
2599 in active service till the battle of Five Forks, in which I was
wounded in my right arm, rendering it useless, probably for life.

I returned home in July, 1865, and early in August following I applied for a patent for my invention.

The patent was granted, my claim being for "the process or mode of constructing or sinking wells where no rock is to be drilled, viz.: Driving a rod down to and into the water under ground, withdrawing it, and inserting a pipe in its place as herein described."

After Suggett's patent, and since I went into the army, in 1864, there have, perhaps, issued from the office fifty patents purporting
to be improvements in bored wells. Their respective claims,
2600 however, are for something relating to the pipe. The patents
are sold in many, if not in all cases, I am told, by exhibiting them in connection with my process for sinking wells, paying no regard to my rights in the matter.

I have here given a brief history of this invention in the construction of wells. My statements can be verified by almost any amount of testimony. I leave the subject, with a word to the public. Notwithstanding the hue and cry that may be raised by parties with adverse interests, my patent is valid and will — sustained beyond a doubt. But if sickness, accident, poverty, a too faithful service of my country to the exclusion of private *witnesses*
shall work a forfeiture of my rights as an inventor, then the
2601 whole benefit of this discovery is yours and cannot be mo-
nopolized by any man or any set of men.

BYRON MUDGE.

We, the undersigned, declare that the above statement of Byron Mudge, so far as it relates to ourselves, is strictly true.

J. C. CARMICHAEL.
CHAS. H. PARKER.
REED PECK.
FRANK PECK.
HENRY WOODRUFF.
IRA V. HICKS.
ABRAM MUDGE.
A. S. ROLLO.

2602 *Copy of Advertisement Pasted on Inside of Last Page.*

Suggett's bored wells.

I have a limited number of State, county, and town rights for the above improvement yet for sale. The well is extensively in use in the New England States, New York, Pennsylvania, and the West, and is everywhere pronounced one of the greatest improvements of the age. The advantages of these wells are their cheapness and durability, the dispatch with which they can be put down, the ease with which they can be removed, their security against all kinds of filth, and the purity and coldness of the water.

2603 I claim the following advantages over other patents for these wells:

1st. My letter- patent are the oldest in the United States, having been issued March 29, 1864, and having over 15 years to run.

2d. The Commissioner of Patents has decided that my patent cover- every part, to wit, the right to drive a pointed rod of iron or steel into the ground, withdrawing it, and inserting a perforated pipe or tube with pump attached.

3d. Other parties who have obtained later patents, so far as they come under my observation, cannot make these wells without infringing upon some part of the right secured to me.

2604–2611 All persons, therefore, are cautioned against infringing upon my patent, and especially the right to use a perforated tube or pipe for the purpose of drawing water from the earth.

Those desirous of securing an interest in such territory as remains unsold may apply to the undersigned, *or* Cortland village, Cortland Co., N. Y.

Dated Dec. 5, 1865.

[SEAL.] JAMES SUGGETT, *Patentee.*

2612 NEW YORK, *March* 12, 1881—10 a. m.

Met at 229 Broadway pursuant to adjournment.

No one appears for defendants.

The complainants call ABNER DOUBLEDAY to the witness stand.

ABNER DOUBLEDAY, a witness called on the part of the complainants, being first duly sworn and cautioned to tell the truth, deposes and says:

Direct examination by WILLIAM D. ANDREWS, Esq., for complainants:

Q. 1. Please give your name, age, residence, and occupation.

A. Abner Doubleday; age, 61; residence, New York; brevet major general, U. S. Army.

Q. 2. Please state whether or not you have ever been connected with the West Point Military Academy or with the Regular Army of the United States; and, if so, in what capacity, when did that connection commence, and how long did it continue?

A. I was graduated at the West Point Military academy in the army as brevet second lieutenant in the year 1842 and have been in the regular service ever since.

Q. 3. Were you at any time during your connection with the West Point academy acquainted with N. W. Green; and, if so, how well did you know him?

A. I knew him for some months, but cannot remember how long.

2613 Q. 4. What were his characteristics at that time as to having a well-balanced mind, and did he or not exhibit any peculiarities differing from the mass of men in similar positions in life?

A. He seemed a pleasant, genial man at that time; I do not remember that there was anything peculiar about him.

Q. 5. How long did you know him as a student at the West Point Academy?

A. Some months; I do not remember how many.

Q. 6. Did your acquaintance continue after he left the academy?

A. No.

Q. 7. Where and when did you next meet him, under what circumstances, and in what capacity were you and Green, respectively, then acting?

A. I first met him at Washington, D. C.; I was a brigadier general of U. S. volunteers, and he was colonel of the 76th N. Y. Volunteers, under my command; it was early in 1862.

Q. 8. Please state whether or not complaints were made to you to the effect that Col. Green was not in a fit condition to command the 76th regiment.

A. Such complaints were made to me.

Q. 9. Who were these complaints made by—whether by officers or privates of his regiment, or by others?

A. They were made by the lieut. colonel of the 76th N. Y. Volunteers, and were endorsed by nearly all the officers.

Q. 10. What was the nature of those charges?

A. To the best of my recollection, they were that, instead of arresting and trying his officers by court-martial, he went about flourishing a pistol to enforce discipline; that his officers were afraid of being shot in some freak of his; I heard something, too, about his trying to force the surgeon of his regiment to grub up a stump and about his tying him up a tree.

Q. 11. Did they charge disobedience, incapacity, or what was their general purport?

A. Foolish and tyrannical conduct.

2614 Q. 12. Have you during your military experience been in the habit of carefully studying the mental characteristics of your associates and of those under your command?

A. I have.

Q. 13. What was the then state of Col. Green's mind as to being well balanced or exhibiting any peculiarities?

A. I do not know personally; my action was based on the reports of his subordinate officers.

Q. 14. Please state what you know of his action as colonel of the 76th regiment, and what, if any, action you, as his commanding officer, took in relation thereto.

A. When these reports were made to me I suspended him from command; I am under the impression that his case was acted upon by some special board detailed to examine his fitness for command by the War Department.

Q. 15. What was the result of the action of that board?

A. The result was to throw him out of the army.

Q. 16. Did you or not find or note any marked change in Col. Green's manner, character, and deportment from what you had observed during your acquaintance with him at West Point? And, if you say you did, please say what that change was.

A. I had no prolonged interview with him, and nothing passed between us worthy of note.

Q. 17. Were you present at Cortland, N. Y., during the trial of Col. N. W. Green for the shooting of Capt. A. J. McNett, a member of his regiment, for alleged insubordination upon the camp ground at Cortland, which trial took place in the spring of 1866?

A. I was sent there by General Grant as a witness to what constituted discipline in the regular army.

Q. 18. Did you testify as a witness upon the trial?

A. I was told my testimony was not required.

Q. 19. What effect, if any, can you say the difficulties with Capt. McNett and his involuntary disconnection with the 76th regiment and the army had upon Col. Green?

A. I do not know.

2615 Q. 20. You have for a long time been connected with the United States Regular Army and with the students at West Point; now, will you please state what, with your knowledge so acquired, would, in your opinion, be the effect upon a man so educated of such charges and trial before a civil tribunal for an act performed while in a military command as compared with its effect upon one who had received only a civil education?

A. I think it would wound his pride, and he would brood over it if he was of a sensitive nature.

Q. 21. According to your observation and knowledge of Col. Green while he was with the 76th regiment at and near Washington, would you or not consider him then to have been in a fit condition mentally to transact general business?

A. I should judge not, if the complaints made by his subordinate officers were well founded.

Q. 22. Did not the board detailed to act upon his case declare these complaints to be well founded?

A. I think I was ordered away from Washington before their decision was officially announced, but the effect of their decision was to throw him out of the army, as he never came back to the regiment.

Q. 23. Judging from your knowledge of his education, antecedents, and general character, what, in your opinion, would be the natural effect upon him of his troubles in the McNett affair, his being held to bail by the civil courts for a felonious assault upon Capt. McNett for an act performed, as he claimed, in strict accordance with his military duties, together with its attendant annoyances?

A. They would, of course, affect him to a considerable extent, and I should judge he was a man who would brood over them a good deal.

Q. 24. Did you or not believe his actions against which his officers complained to be the result of his troubles which had in part disturbed his normal condition and practically unbalanced him mentally?

A. I did not know the motives which actuated him, but thought it might possibly arise from a belief that there was an intention to dispute his authority and from ignorance of the proper course to be taken under such circumstances. 2616–2620

Q. 25. At the time of his trial, in the spring of 1866, was he or not still more or less under the influence which apparently operated upon him in Washington during the winter and spring of 1862?

A. I do not know; I did not converse with him at the time of the trial.

Q. 26. Colonel Green's townsmen and neighbors have testified in this suit that after his return from the army, in the spring of 1862, down to the time of his trial for shooting McNett, in the spring of 1866, he was a changed man in his habits and intercourse with his neighbors; that he, during those years, transacted no business outside of defending himself from the McNett suit, in endeavoring to get restored to his command, and defending himself in various petty suits brought against him personally for debts incurred in behalf of his regiment; and that, having a wife and family of young children dependent upon him, he performed no labor and had no income excome except from the produce of a little place of eight acres, but used up all the savings of his previous years to support his family; this being so, would you or not attribute his action in these respects to a change in his character caused by the troubles enumerated, keeping in view his military education and antecedents?

A. I think it quite probable his mind would be affected under the circumstances you narrate.

(Signed) ABNER DOUBLEDAY,
Brevet Major General U. S. Army.

No one appears to cross-examine.

Adjourned to March 15, 1881, at same place and hour.

(S'g'd) ERNEST C. WEBB,
Notary Public.

2621 United States Circuit Court, District of Iowa. In Equity.

WILLIAM D. ANDREWS *et al.* *vs.* GEORGE HOVEY.

SAME *vs.* JOHN THEE.

SAME *vs.* GEORGE LELAND.

Testimony taken on the part of complainants, in accordance with the annexed notice and in conformity to the 67th rule of the United States Supreme Court, as amended, and the Revised Statutes of the United States, before Aug. A. Nicholson, notary public, *de bene esse.*

NO. 615 SEVENTH STREET N. W.,
WASHINGTON CITY, D. C., *March 10th*, 1881.

Met pursuant to notice.

Present: Wm. D. Andrews, of and for complainants; H. W. Brelsford, on the part of defendant. Case adojurned to 12 o'clock m., at No. 607 Seventh street N. W.

Case called, pursuant to adjournment, at 12 o'clock noon, March 10th, 1881.

Present: Wm. D. Andrews, of and for complainants; H. W. Brelsford on the part of defendant.

Case further adjourned until 5 o'clock p. m. this day.

Met, pursuant to adjournment, at 5 o'clock p. m.

Ezekiah Klock produced as a witness on the part of complainants.

The defendant, by his attorney, submitted a protest to the examination of the witness, which protest is hereto attached and marked "Defendant's Exhibit A," with the initials of the notary, A. A. N., March 10th, 1881.

2622 EZEKIAH KLOCK, being by me first duly sworn, deposes and says, in answer to questions propounded by WM. D. ANDREWS, as follows:

Q. 1. Please give your name, age, residence, and occupation.

A. Ezekiah Klock; 57 years; Forestville, Prince George county, Maryland; farming.

Q. 2. How long have you resided at Forestville?

A. Ten years on the fifth of September next.

Q. 3. Did you not formerly reside in Preble, Cortland county, New York?

A. Yes, sir.

Q. 4. Please state during what years you resided there.

A. I moved there in 1860, and lived there until 1868.

Q. 5. Where did you first reside in Preble, and how long did you reside there?

A. On Wm. E. Tallman's farm, and lived there four years.

Q. 6. Where was Wm. E. Tallman's farm situated in relation to Preble village and to the farm of his brother, Moses Tallman?

A. About a mile south of Preble village and on the north of his brother; the distance of the public road between them.

Q. 7. On what road did the two Tallman brothers live; William, as you say, on the north and Moses on the south?

A. On the first east and west cross-road south of Preble village.

Q. 8. You have said that you resided four years on the Wm. E. Tallman farm; in what capacity in relation to the farm?

A. Rented the farm as tenant.

Q. 9. Of about how many acres did that farm consist?

A. 206 acres.

Q. 10. Please give the eastern, western, and southern boundaries of the farm.

A. On the east side was the mill-pond formed by the Tioughgehony creek; west by the west road from Preble to Homer, and on the south by the cross-road that separates the farms of Wm. E. and Moses Tallman.

2623 Q. 11. What did you occupy the farm for principally?

A. As a dairy farm, making butter and cheese, keeping as many as sixty-five head.

Q. 12. What was the distance from the east to the west side of the farm?

A. About three-quarters of a mile.

Q. 13. Where did you procure the water necessary for watering your stock?

A. At the creek.

Q. 14. Did you during those years procure all the water necessary for your stock from the creek, or did you have any other partial supply elsewhere?

A. I did one season for a short time use a well for young stock the well was situated about 200 yards from the west road and about midway between the north and south.

Q. 15. Please state in what year you made use of this well of which you have just spoken.

A. In 1860, the first year I went there.

Q. 16. And why did you not continue to use this well on the western end of the farm?

A. Because we had to pump it by hand; there was a windmill pump in there, but it wouldn't supply the stock, and we couldn't depend upon it.

Q. 17. When, if you know, was this windmill erected there?

A. I saw it there in 1859; it was there when I went there.

Q. 18. Please describe, as well you can, the location of this well upon the western part of the farm over which the windmill stood.

A. About 200 yards east from the west road and about half way between the north and south line of the farm; the well was in a little valley or ravine; it was in the second lot just across the fence from the west road.

Q. 19. What kind of a well was this?

A. It was a dug well, stoned up.

Q. 20. About what was the depth and diameter of this dug and stoned-up well?

A. Never saw the well dug, and do not know its depth; think it was some 12 or 14 feet; about three feet across; I never measured it.

2624 Q. 21. How was water obtained from this well during your occupancy of this farm?

A. By a hand pump.

Q. 22. Was or was there not at all times during your occupancy of the farm water in this well?

A. I never saw the well dry, to my recollection.

Q. 23. Did or did not any person or persons other than yourself use or control that well and windmill during the four years from the time you first occupied the farm, commencing, as you say, in the spring of 1860?

A. Yes, sir. Mr. Tallman tried to make the windmill supply us with water.

Q. 24. Do you or not mean that he had the use and control of the windmill and well, or that he endeavored to make it work so that you could use it?

A. He was trying to fix the pump for the benefit of my stock.

Q. 25. And did he or not have any other use or control of it except to make it work for your benefit as his tenant?

A. It was for my benefit.

Q. 26. Was there or not anything peculiar about this well other than that water was or had been pumped from it by means of the windmill?

A. Nothing that I know of.

Q. 27. Did you ever converse with Wm. E. Tallman in regard to the manner in which this well was made?

A. Nothing that I recollect.

Q. 28. Did you or not ever hear Mr. Wm. E. Tallman or any one else say or claim that the water from that well, during the time the windmill was in operation—that the water was drawn by the windmill pump from an iron tube driven into the bottom of that well?

A. No, sir; I did not.

Q. 29. Did or did you not, during your occupancy of this farm, have occasion to use this well; and, if so, how often?

A. I never used it after the first season except for drinking purposes, all during the farming season, when we worked on that part of the farm.

Q. 30. Were you yourself ever down in this well?

2625 A. No, sir; not that I recollect.

Q. 31. Did you know a man by the name of Thos. J. Getman?

A. I knew a man by the name of Jeff. Getman.

Q. 32. Did he or not ever work for you while you were running the Tallman farm?

A. Yes, sir; Jeff. Getman worked for me.

Q. 33. And do you know whether Getman, while working for you, procured water from that well?

A. Nothing more than for drinking purposes.

Q. 34. Where, if you know, did Wm. E. Tallman reside during the years you occupied and worked his farm?

A. He lived in the same house that I lived in.

Q. 35. Whereabout upon the Wm. E. Tallman farm was the house situated in which you resided while working the farm, and in which you say Wm. E. Tallman also lived during that time?

A. On the north side of the first cross-road south of Preble, about 75 yards from the creek on the east side of the farm.

Q. 36. In what direction and how far from Wm. E. Tallman's house, in which you and he resided together, was the house in which Moses C. Tallman resided?

A. It was south about 40 yards.

Q. 37. And did the public road pass between the houses as it passed between the farms?

A. Yes, sir.

Q. 38. Were you or not on friendly, intimate terms with Wm. E. Tallman and his family and with Moses C. Tallman and his family during the years from the spring of 1860 down to the time when you ceased to occupy the Tallman house and farm?

A. Yes, sir; we were.

Q. 39. And did you or not have the usual neighborly, friendly intercourse customary between families living in the country in such close neighborhood?

A. Yes, sir; I did.

Q. 40. About how often during those years did you see and converse with each of the Tallman brothers?

A. About daily, with the exception of about six months while William was in Indiana.

2626 Q. 41. And were you or not in the habit of discussing with both the brothers Tallman on neighborhood and general news free and unrestrictedly?

A. Yes, sir.

Q. 42. And would or would not the fact, if it were a fact, that there had been any peculiarity in regard to the construction of the windmill well been such a subject as would naturally come within the range of the conversations and discussions customarily indulged in between the Tallmans and yourself?

A. I should think if there was anything peculiar about it Mr. Tallman would have spoken to me in regard to it.

Q. 43. Do you know and have you ever used what is now known as a driven well?

A. Yes, sir; I had one driven on a place of mine in Preble.

Q. 44. When did you first know or hear of a driven well, and where was the well?

A. I first heard of some in 1863 or 1864, but I am not positive; I think I had heard of one on the Homer fair ground; I think I had seen one on the Homer fair ground, but I am not positive.

Q. 45. When and where did you say the first driven well was of which you have positive knowledge and recollection?

A. The well on my place is the only one that I have positive knowledge of, about the year 1867 or 1868; my brother-in-law had one put down previous to that time and others had them, but I cannot give the dates.

Q. 46. Who put down the first driven wells in Preble of which you have any knowledge?

A. I think a Mr. Dunning, who lived at Homer.

Q. 47. Do you know whether or not this Mr. Dunning, of Homer, put down any driven well or wells for Wm. E. or Moses C. Tallman?

A. I do not know; there was none put down on the Wm. E. Tallman place while I lived there; I do not know about Moses.

Q. 48. Was there or not a well of any kind put down on the Wm. E. Tallman place while you were there?

A. There was one dug in the barn-yard.

Q. 40. Who, if you know, dug that well?

2627 A. I think it was Jeff. Getman and a man by the name of Tom Perry.

Q. 50. By what means, if you know, was water procured from that well?

A. By the use of a hand pump.

At 8.30 p. m. case adjourned until to-morrow, Friday, March 11th, 1881, at 9 a. m., same place.

MARCH 11TH, 1881—9 o'clock a. m.

Examination of EZEKIAH KLOCK continued:

Q. 51. Please state what was the construction of this hand pump in use in the barn-yard.

A. I don't remember distinctly, but I think it was a wooden pump.

Q. 53. By whose direction was that well dug?

A. By Wm. Tallman's.

Q. 53. Was or was there not any iron or other tube driven into the bottom of this barn-yard well?

A. Not to my recollection.

Q. 54. Were you present during the making of that well?

A. I was there frequently during the digging of it and stoning up.

Q. 55. Was or was not Mr. Wm. E. Tallman also present at the making of that well?

A. He was.

Q. 56. Did you at that time, during the making of that well, hear any suggestion made as to driving a pipe into its bottom to increase its supply of water or for any other purpose?

A. No, sir; I did not.

Q. 57. Or did you hear any conversation or suggestion from any one that such a thing was feasible, could be done, or ever had been done?

A. No; I did not.

Q. 58. About when was it that this well at the barn yard was dug?

2628 A. To my best recollection it was dug in the year 1862 or 1863.

Q. 59. Was there or had there been, previous to the digging of this well at the barn, any other well or wells at the barn or at the house during your occupancy?

A. There was a well at the house when I went there; I am under the impression there was a driven well put there by this man Dunham for the use of the cheese-house.

Q. 60. Was this man Dunham, of Homer, making a business of putting down driven wells?

A. He was making a business of it.

Q. 61. Was or was not this man Dunham the first person whom you knew to be engaged in the putting down of driven wells?

A. Yes, sir; he was.

Q. 62. Were or were not these driven wells as put down by Dunham at that time spoken of and considered as being a new method of procuring water from the earth?

A. It was.

Q. 63. Please give, as near as you may be able, the depth and diameter of this well that was put down at the barn.

A. I think the depth was 12 or 14 feet and about 2½ to 3 feet across.

Q. 64. How far, about, was this well from the creek which formed the eastern boundary of the farm?

A. Between 40 or 50 yards from the pond and about 75 yards from the creek, which was about in the center of the pond.

Q. 65. For what reason and for what purpose was this well, so near the pond and creek, put down?

A. To prevent the cattle from getting on the ice and drowning in time of thaw.

Q. 66. Do you mean to be understood that this well was provided for the purpose of watering stock during the season of the year when there was danger of injury to the stock by watering them at the pond or creek, as you were in the habit of doing at other seasons?

A. Yes, sir; it was put there for that purpose.

2629 Q. 67. Had or had not this farm previous to your occupancy of it been used, as you used it, chiefly for dairy purposes?

A. It had not by Mr. Tallman.

Q. 68. How far was the cheese-house of which you have spoken from the dwelling-house where you resided?

A. Twenty-five feet from the house.

Q. 69. You have spoken of a house well; whereabout was that well situated?

A. On the south side of the house, 15 or 20 yards from the road.

Q. 70. What kind of a well was that and how was water procured from it?

A. It was a dug well, walled up, and a pump put in it.

Q. 71. In regard to this windmill, which stood over the well in the lots near the west end of the farm, what were its arms and wings composed of?

A. Of iron.

Q. 72. How high above the well was this windmill, and to what was it attached?

A. About 20 to 25 feet; it might not be as high as that.

Q. 73. You have spoken of Mr. Tallman trying to make the windmill supply you with water; please state what he did in that endeavor to supply you.

A. He took up the pump and brought a piece of gas pipe to the shop and had it punched full of holes and battered up one end of this pipe, and said he was going to attach that to the lower end of the tube of the pump to prevent its drawing in any dirt or sediment of any kind. I did not see him attach this to the pump. I was not present when that pump was replaced.

Q. 74. About what time was it when these repairs were made and the pipe punched as you have stated?

A. In the summer of 1860 I think it was done.

Q. 75. Where had you resided immediately previous to going on to the Tallman farm?

A. In Tully, Onondaga Co., New York.

Q. 76. Had you ever previously lived in Preble?

A. No, sir.

2630 Q. 77. Were you or not in the habit of visiting there frequently previous to moving to the Tallman farm?

A. Nothing more than going to his mill.

Q. 78. How long previous to your taking the Tallman farm were you acquainted with Wm. E. Tallman?

A. Some five or six years.

Q. 79. And had you or not been acquainted with his brother Moses previous to the spring of 1860? And, if you had, please state for how long.

A. Some four or five years.

Q. 80. How long had you been acquainted with Thos. J. Getman or Jeff. Getman, as he was called?

A. In spring of 1860 was my first acquaintance with him.

Q. 81. Do you know whether Getman was a professional well digger or not?

A. He pretended to be a professional well digger; I never saw him dig but that one.

Q. 82. In answer to a question you have stated that Mr. Tallman took a piece of gas pipe to the shop and had holes punched in it and the end battered up; what shop do you refer to where this was done?

A. The shop was on his place—a blacksmith shop.

Q. 83. About what was the length of that pipe into which you saw the holes punched?

A. I did not see the holes punched, but I saw the pipe after it came out of the blacksmith shop.

Q. 84. About what was the length of the pipe you saw after it came out of the blacksmith shop with the holes punched in it and the end battered up?

A. It must have been about ten inches, I think.

Q. 85. In whose possession was this pipe when you saw it?

A. In Mr. Wm. E. Tallman's.

Q. 86. Did you or not ever afterward see this pipe, either in the well or elsewhere?

A. No, sir; not after that day.

Q. 87. You have testified that Mr. Tallman said he was going to attach that pipe to the lower end of the pump tube; did he ever afterward inform you whether or not he did so attach it?

2631 A. I don't recollect.

Q. 88. Do you know or did you ever hear whether that iron pipe had previously been in that well?

A. No, sir; I did not.

Q. 89. Do you know how that windmill pump was attached to the well?

A. By an iron rod attaching the pump to the windmill.

Q. 90. Do you know whether or not any repairs were made to the windmill itself during the time of your occupancy of the farm?

A. I don't recollect of any repairs being made to the windmill.

Q. 91. Do you know whether or not there were at any time during your occupancy of the farm any wooden wings attached to and made a part of that windmill?

A. I do not.

Q. 92. Could or could not such wooden wings have been attached and used as a part of that windmill without your knowledge during your occupancy of the farm?

A. I don't think they could.

Q. 93. About what depth of water was there in the well at the barn?

A. About four or five feet; it never went dry while I remained there.

Q. 94. What arrangement, if any, did Mr. Tallman make to receive the water raised by this windmill pump?

A. He built a small reservoir to receive the water from the pump; then the water was led from this reservoir into a trough intended to water the stock.

Q. 95. When, if you know, was this arrangement made of the reservoir and trough you mention?

A. This was in the year 1860; the same year I went there, and while I occupied the place.

Q. 96. This driven well that you speak of being driven on your place in 1867 or 1868, by whom was it put down?

A. By Mr. Dunham.

2632 Cross-examination by H. W. Brelsford:

X Q. 97. When you lived on the farm of Wm. Tallman, at Preble, on what part of the farm did you live?

A. On the southeast corner of the farm.

X Q. 98. How far was the house from the west road leading from Preble to Homer?

A. Near three-quarters of a mile.

X Q. 99. On which side of this west road was the house?

A. On the east side.

X Q. 100. On which side of the east and west road—that is, between the Wm. Tallman place and the Moses Tallman place—was the house you lived in?

A. On the north side.

X Q. 101. Now, state how far your house was from this east and west road.

A. About twenty-five yards.

X Q. 102. How far was this well, over which you say in your direct examination was a windmill, from your house in which you lived?

A. About a half mile.

X Q. 103. Are you sure that you lived on the farm of Wm. E. Tallman in 1860?

A. I moved there in March, 1860.

X Q. 104. Might it not have been as late as 1864 you went on that farm?

A. No, sir; I moved off it in 1864.

X Q. 105. Where did you live in 1859?

2633 A. In Tully, New York.

X. Q. 106. How long did you live there.

A. I lived in Tully five years.

X Q. 107. Where did you live before that?

A. I lived in the town of Fabius.

X Q. 108. How many years did you live there?

A. Ten years.

X Q. 109. You have testified that you saw this windmill which was over the well in Tallman's field before you went on his farm; how long before?

A. About a year before.

X Q. 110. Now, give the date, as nearly as you can, at which you first saw this windmill.

A. I think 1859 is as near as I can get to it.

X Q. 111. How close to the well were you when you first saw it?

A. 150 or 200 yards.

X Q. 112. When you got water from the well where the windmill was for your cattle how did you get it up out of the well?

A. By hand-pump.

X Q. 113. You state there was a hand-pump there; please state whether there was not also another pump set down in the well.

A. A windmill pump was also in the well; it was so constructed that it could not be pumped by hand.

X Q. 114. You stated that there was a reservoir constructed near this well; how large was it and of what constructed?

A. It would hold some five or six hogsheads of water; it was made of cement.

X Q. 115. Describe now fully the process by which the water was pumped into this reservoir by the windmill.

A. It was led into this reservoir by a pipe.

X Q. 116. Describe this basin or reservoir fully and state how water was got into the lots adjoining.

A. It was led out of the reservoir into the trough into the lot adjoining by a gas pipe, or it might have been lead.

X Q. 117. How many of these lots did Wm. E. Tallman own at that time?

2634 A. About ten lots.

X Q. 118. How many of them did you occupy in 1860?

A. All of them.

At 1 p. m. a recess was taken for one hour.

Met pursuant to adjournment. All parties present.

X Q. 119. How many years did you live on this Tallman farm and when did you remove from there?

A. I lived there four years and removed from there in March, 1864.

X Q. 120. Where did Wm. E. Tallman live when you lived on the farm?

A. He lived in the same house with me.

X Q. 121. How many cows did Wm. E. Tallman keep besides the ones you had use of?

A. Not any.

X Q. 122. You say you rented the farm after the first year; how much did you pay for the use of the farm?

A. I worked the farm on shares the first year and the second year I paid sixteen hundred dollars, and the two last pears I paid sixteen hundred and fifty dollars.

X Q. 123. Did that include the use of the cows also?

A. Yes, sir.

X Q. 124. Who owned the cows that were on the farm and how many were there?

A. The cows were appraised to me, and at the expiration of my term to return the stock or their value in money, except fourteen that were my own property.

X Q. 125. How many were there?

A. Some 25 cows.

X Q. 126. What kind of a frame was there to this windmill over the well? Give the number of posts in it and describe it, as nearly as you can.

A. The frame was of sawed timber, hemlock, I believe—four posts; this frame had beams up to the top, and half way between these a piece of timber put across for the mill to rest on.

X Q. 127. How high was the frame?

A. I think some 15 or 20 feet.

X Q. 128. Was the mill so it could turn and have the fans face the wind or was it stationary on the frame?

2635 A. It was constructed so it could turn with the wind.

X Q. 129. Now,. you are asked to describe this fully.

A. This had a little crank to it; the crank was attached to a connecting rod extending from the crank to the pump; the pump was attached to a pipe extending downwards.

X Q. 130. Was any water in this basin or reservoir near the well at any time while you lived on the farm?

A. For a short time when it was first built; the reservoir sprung aleak, so we couldn't use it.

X Q. 131. At the time you lived on the farm of Wm. E. Tallman was there a railroad running through it?

A. Yes sir; there was.

X Q. 132. Which way was that railroad from the house where you lived?

A. West.

X Q. 133. Was there any other house on the farm at that time; if so, where was it situated, and which way from the well?

A. There were two other houses on the farm; one was on the east of the west road, opposite to this well, and the other was on the east side of the railroad and east of the well.

X Q. 134. Did you at any time live in the house on the west end of this Tallman farm; if so, when did you live there?

A. No, sir.

X Q. 135. You say there was a railroad west of the house where you lived. State how far it was west of the house to the railroad and how far was it from the railroad to this well, and which way from the railroad was the well.

A. From 150 to 200 yards; about half way between the well and the house; the well is west of the railroad.

X Q. 136. You have stated that this well was about 14 feet deep; how do you know or do you know anything, of your own knowledge, as to its depth?

A. Nothing more than what I was told.

X Q. 137. Had this well a cover to it?

A. It had some loose plank on it.

2636 X Q. 138. Were you ever down in this well at any time while you lived on this farm?

A. No, sir.

X Q. 139. Did you ever clean out this well or have it cleaned while you lived there?

A. No, sir.

X Q. 140. Was this windmill and frame standing there when you left this farm?

A. Yes, sir; I think it was.

X Q. 141. Where did you remove to after you left this farm?

A. I removed to a farm about a half mile north of Preble village.

X Q. 142. How long did you live on that place?

A. I lived there two years.

X Q. 143. Where did you go next after that?

A. I moved to Preble village.

X Q. 144. How long have you lived where you now live?

A. It will be ten years the 5th of September next.

X Q. 145. Did you remove direct from Preble to where you now live?

A. No, sir.

X Q. 146. Where did you last reside before removing to your present place of residence, and how long did you live there?

A. I lived in town — Lafayette; I lived there 3 years.

X Q. 147. When was this railroad built that runs through the Tallman farm?

A. About 1854 or 1855.

X Q. 148. Where did you live at the time this railroad was built?

A. In Tully.

X Q. 149. Are you quite sure that there was a four-post frame over that well and windmill on top of that when you first went on Wm. E. Tallman's farm, in 1860?

A. I cannot state positively that there was a four-post frame, but I am positive that there was a frame with a windmill on top of it.

2637 X Q. 150. Did you during that year (1860) have any deal with Moses T. Tallman the first year you were on the Wm. E. Tallman farm?

A. Nothing more than our employés changing work, that I recollect.

X. Q. 151. What kind of a man was Wm. E. Tallman, so far as making machines was concerned?

A. He was always improving or suggesting improvements, more or less, all the time I lived there.

X Q. 52. How was he as to inventing new ways or means of doing things?

A. His head ran to making changes and improvements.

X Q. 153. How was he about telling his business to others?

A. I don't think he was a man who was accustomed to tell his business to others, unless he wanted a favor.

X Q. 154. Did you know of Mr. Dunham, of Homer, putting in a well for Mr. Tallman in 1864 or 1865?

A. I have a slight recollection of him putting in a well in 1863 or 1864.

X Q. 155. State how Dunham made that well.

A. He made it by driving an iron bar into the ground, and, after driving a certain distance, withdrawing it, and then driving down a pipe with a point to it to the depth that is required to get water; the bottom of this pipe was perforated.

X Q. 156. Whereabout on the farm was that well made?

A. If I am not mistaken it was on the south side of the cheese-house.

X Q. 157. How far is that from where the well was with the windmill over it?

A. About half a mile.

X Q. 158. Did you go to the well where the windmill was for water yourself in 1860 or 1861, or did some other persons go and bring the water?

2638 A. I went there, and so did others.

X Q. 159. After Mr. Dunham put in this well did you use it to get water from?

A. Yes.

X Q. 160. When you worked the farm what was Mr. Tallman engaged in doing?

A. All he did was to put in little improvements about the farm.

X Q. 161. Did he have any business except attending to his farm? If so, state it fully.

A. Not the first year; the second year after he attended to his saw-mill.

X Q. 162. Did Wm. E. Tallman own that saw-mill?

A. Yes, sir.

X Q. 163. How far was that saw-mill from his house?

A. I should think about one hundred yards.

X Q. 164. In going from where you lived to the saw-mill how near did you go the well where the windmill was?

A. They were in opposite directions.

X Q. 165. In going from your house to the well where the windmill was how near did you go to the well that Mr. Dunham, of Homer, put in?

A. South of it about twenty feet.

X Q. 166. What was Mr. Dunham's first name?

A. I couldn't tell you.

X Q. 167. When you lived on Tallman's farm state whether you had any children who attended school.

A. My eldest boy went.

X Q. 168. Who taught the school near Tallman's the first summer you were at the farm?

A. Jennie Van Hoesen.

X Q. 169. When you met Moses T. Tallman did he usually tell you about his business and what he had done or seen?

A. He was no man for telling his business.

X Q. 170. Did you ever ask Wm. E. or Moses Tallman anything about the pump down in the well to which the windmill was attached?

A. I presume I did, but I have no distinct recollection of it.

2639 X Q. 171. How long had you known Wm. E. Tallman when you went on his farm to live?

A. About 5 or 6 years.

X Q. 172. While you lived on Wm. E. Tallman's farm did you know De Witt C. Callen; if so, where did he live at that time?

A. I did know him, and he lived at the southeast corner of the junction of the cross and west roads.

X Q. 173. How far was his house from the well over which you say this windmill was standing?

A. About 250 yards.

X Q. 174. In what direction from Callen's house was the well?

A. Northeast.

X R. 175. Who lived nearest this well, you or Callen?

A. Callen did.

X Q. 176. Did you know Abram Van Denburgh at that time; if so, where did he live and what business did he follow?

A. I did know him; he lived at that time on the east road, about a mile and a half north of Wm. Tallman's; he was a carpenter and joiner.

X Q. 177. When did you first know De Witt C. Callen?

A. About the year 1860.

X Q. 178. What was his business when you knew him?

A. He was farming and running a threshing-machine.

X Q. 179. When you lived on Wm. E. Tallman's farm, at Preble, did you have any dealings with Mr. Callen, and what were they?

A. He worked for me; I sold him a horse.

X Q. 180. You have already stated that you knew Thos. J. Getman while you lived on Wm. E. Tallman's farm. Where did he live and what was his occupation, and how long have you known him?

A. He lived on the east road opposite Wm. E. Tallman's farm; he was a laboring man; I have known him about ten years.

X Q. 181. You have stated that Wm. E. Tallman took a piece of gas pipe to the shop and had it punched full of holes and 2640 battered up one end of the pipe, and that he was going to attach that to the lower end of the tube of the pump at the windmill. Was that pipe sharpened at the end so it could be driven into the ground?

A. To the best of my recollection it was flattened at the end; it could be driven into the soft ground.

X Q. 182. Were you present at the time the attachment was made of this pipe to the tubing of the windmill pump?

A. I was not.

X Q. 183. Then you do know of your own knowledge whether or not this pipe, after being attached to the tubing of the pump, was driven into the bottom of the well?

A. I do not.

Redirect examination by Mr. Andrews:

R. D. Q. 184. Did you ever look down into this well over which the windmill stood?

A. Yes, sir.

R. D. Q. 185. From what you then saw what is your best judgment as to what was the depth of that well?

A. I should think the lowest I ever saw the water was 12 feet to the water.

R. D. Q. 186. How far below the mouth of the well was the windmill pump placed?

A. To the best of my recollection it was above the covering of the well.

R. D. Q. 187. And did or did not the hand-pump stand upon the same level as to the windmill pump?

A. About the same, I should think, to my best recollection.

R. D. Q. 188. Then when you spoke of the pump being in the well are we to understand that you meant that the suction pipes of those pumps only went down into the well?

A. Yes, sir.

R. D. Q. 189. At what season of the year, whether in the cold, wet portion of the year or in the hot, dry portion of the year, were you accustomed to go to this windmill for water?

2641 A. We didn't use the well in the cold, wet season; we used it in the spring and summer,

R. D. Q. 190. Did you use that well during such portion of the year as the water in the earth was naturally at its lowest depth?

A. Yes, sir; during the spring, summer, and September.

R. D. Q. 191. You have said in your cross-examination that the Tallmans did not talk freely about their business as a general thing; did they or not talk freely with you concerning their business?

A. As to general business matters I don't know that they did, but as to our home matters they did.

R. D. Q. 192. Did they or not talk with you about their business matters as much or more than they did with people generally who were not as near neighbors and as closely connected in business matters as they were with yourself?

A. I think Wm. Tallman did; as to Moses I could not say.

R. D. Q. 193. Who ran Tallman's saw-mill during the years you occupied the farm?

A. Jeff. Getman and William, and a man by the name of Seth Kelsey.

R. D. Q. 194. You have said that Wm. E. Tallman was in the habit of making frequent changes and improvements in machinery and matters with which he was connected and in which he was interested; were these changes and improvements generally useful and successful, or otherwise?

A. Some were and some were not; I should think the larger proportion were failures.

R. D. Q. 195. Did you, or have you known of Wm. E. Tallman taking out any patents upon any improvements that he had made?

A. No, sir; I did not.

R. D. Q. 196. You stated on your direct — that you had from 40 to 60 cows; on your cross-examination you stated you had 25 cows from Mr. Tallman and owned 14 yourself; please state where these differences existed?

2642–2650 A. The answer to the cross-question related to the stock I had when I first went there; afterwards I increased the stock, and the last year milked 65 cows.

Examination of this witness closed.

(S'g'd) **EZEKIAH KLOCK.**

Subscribed and sworn to before me this 11th day of March, A. D. 1881.

[L. S.] (S'g'd) AUG. A. NICHOLSON,
Notary Public.

2651 *Deposition.*

In U. S. Circuit Court, District of Iowa.

ANDREWS *et al.*, Complainants, *vs.* LELAND, Respondent.

Deposition of witness produced, sworn, and examined on the 19th day of March, in the year of our Lord 1881, between the hours of 10 o'clock in the forenoon and 6 o'clock in the afternoon of that day, at the office of Jas. E. Hereford; 417 Pine street, room 6, 2d floor, in the city of St. Louis and State of Missouri, before me, James E. Hereford, a notary public for said city, in a certain cause now pending in the U. S. circuit court, district of Iowa, central division, between Wm. D. Andrews *et al.*, complainants, and Geo. Leland, respondent, on the part of the complainants.

Present: John Wickham, Esq., on behalf of the plaintiffs, and no appearance on behalf of the defendant.

CHAS. M. NEWCOMB, of lawful age, being produced, sworn, and examined on the part of the complainants, deposeth and saith:

Q. 1. State your name, age, occupation, and residence.

A. My name is C. M. Newcomb; 46 years; insurance; reside in St. Louis, Mo.

Q. 2. Did you formerly reside in Cortland village, Cortland county, N. Y.; and, if so, from about what period to what period, and what was your business there?

A. I resided in Cortland, N. Y., from the year 1855 to the fall, I think, of 1861; was engaged while there as a student and a teacher.

2652 Q. 3. Immediately following the fall of 1861, to what place did you remove your residence, and state whether, after such removal, you were in Cortland; and, if so, how frequently?

A. In the fall of 1861 I removed to Oneida Depot, N. Y., and remained there until the summer of 1862. While residing there I frequently visited Cortland, as often, I should think, as once in three or four weeks, remaining each time two or three days.

Q. 4. While you were residing in Cortland village, and upon the breaking out of the late civil war, state what you know of the formation of drill squads in Cortland village, and what your connection with them was.

A. 'Twas in the spring of 1861, in April, I should think, there was organized there a drill squad, composed of some 12 or 15 men, which was under the command of Nelson W. Green, and of which I was a member.

Q. 5. Were you then and previously, as well as afterward, well acquainted with Nelson W. Green, of Cortland village, afterward colonel of the 76th Regiment of New York Volunteers. If so, state when you became acquainted with him, and how long and how intimately you continued to know him.

A. I knew Mr. Nelson W. Green; I made his acquaintance, I think, about 1857 or 1858, but until 1861 my acquaintance with him was not intimate. During 1861 and 1862 I met him frequently and became intimately acquainted with him. Since that time I have met him but seldom.

Q. 6. Following the formation of the drill squad spoken of, were there other drill squads formed in Cortland, or was there formed there for drilling what was called the "Home Guards?" If so, state what you know of the formation of such body or bodies for military purposes.

A. During the summer of 1861 there was organized in Cortland a military company which met every week, I think, for drill. It was drilled by members of the squad of which I was a member.

Q. 7. State more fully Col. Green's relation to the drill squads mentioned and to the Home Guards mentioned, and state in what place or places the drilling by either body was done during the summer of 1861.

2653 A. Both the drill squad and the military company were under the command of Col. Nelson W. Green; the drill squad met in a hall over Mills' store, in the Schermerhorn block, and the military company or Home Guards met in Squires' Hall to drill; the drill squad used to meet two or three times a week; the company met, I think, only once or twice a week; once, I think.

Q. 8. Did you at that time know Byron Mudge, of that village? State whether he was a member of the drill squad mentioned and whether he met with the other members for drilling.

A. I knew Byron Mudge, of Cortland; became acquainted with him in 1855 or 1856; he was an active member of the drill squad, and was usually present at its meetings.

Q. 9. Did you also have knowledge of the organization of the 76th Regiment of N. Y. Volunteers formed in Cortland, and did you know about the time they went into camp upon the agricultural fair grounds contiguous to the village?

A. I knew of the formation of the 76th Regiment of N. Y. State Volunteers; they went into camp on the fair grounds early in the fall of 1861.

Q. 10. State whether Col. Green at any time disclosed to you what he claimed to be his invention of the process of constructing the driven well; if so, state when, as near as may be, and where, and in what language or terms such disclosure was made.

A. One evening when the squad had met for drill, some time, I think, in July, 1861, we learned from the evening papers that some of the Federal troops had been poisoned by drinking from wells or springs that had been poisoned while marching, I think, in the State of Kentucky; it was stated that the wells had been poisoned by the retreating Confederates; the matter was being discussed by members of the squad prior to drill commencing; Col. Green said he had a way by which the necessity of the Federal troops drinking from wells and springs within territory abandoned by the Confederates —; when asked what his method was he said he would insert or drive an iron rod into the ground to a depth sufficient to reach water, and then withdraw it and insert in its place an iron 2654 tube and attach a pump to the top of it, and in that manner furnish fresh water to the troops, and when they desired to move withdraw the tube and take the pump and tube along with them to be used in the same way again. I think Col. Green illustrated the manner in which he would do it by the use of a pencil which he had in his hand; I recollect there were doubts expressed that it could be done by some members of the squad; it was suggested that it might be difficult not only to insert the rod to a sufficient depth in the first place, but in withdrawing it; Col. Green expressed himself as very confident of its feasibility, and thought that in most cases water could be furnished to the troops in that way; the information, or news, rather, that some of the troops had been poisoned in that way excited a good deal of interest at the time among those present; there was considerable earnest discussion of Col. Green's ideas.

Q. 11. Do you recollect upon what ground or grounds the doubts were based that were expressed of the practicability of the process? If so, state them.

A. As I have stated, doubts were expressed as to the feasibility of inserting a rod to a sufficient depth and withdrawing it after it was driven; Col. Green seemed very confident that it could be done.

Q. 12. State whether Col. Green did or did not express any confidence of his own in the feasibility and practicability of constructing wells in this way. And, if so, in what terms did he express himself on the subject?

A. I have just answered that he expressed great confidence in the feasibility of constructing wells in this way.

Q. 13. State whether you were present during the explanation he then gave, and whether you attended to and heard the explanations he then gave.

A. I was present when he made these explanations and attended to and heard them, as I was very much interested in the idea, which was novel to me.

Q. 14. Assuming the practicability of the process as he described it, state whether his explanations of it were so full and complete as to have enabled you to have executed the process that he described in making one of these driven wells in the manner of that process.

2655 A. His explanations would have enabled me or any one else to construct such a well, assuming the practicability of inserting and withdrawing such a rod; the doubt in my mind arose from the difficulty of driving the rod in case of meeting with rocks.

Q. 15. You state that you were yourself present at these explanations. State whether others were also present to hear them, and whether among those who were present Mr. Byron Mudge was present.

A. There were others present, and among them, to the best of my recollection, was Mr. Byron Mudge; he was very seldom absent from the drills, as he took a very active interest in them.

Q. 16. What is your best recollection as to whether he participated in the discussion that arose there in respect to the practicability of making wells in this way, when Col. Green had given his explanations of the process?

A. I think that he participated in the discussion of the subject; he was a mechanic, and my recollection is that he raised objections to the feasibility of the plan.

Q. 17. State whether either he (Mudge) or any one else there then made any claims to have discovered or invented the same or any similar process for constructing wells in the way pointed out by Col. Green.

A. None whatever; neither Mr. Mudge nor any one else there made any such claim.

Q. 18. State further whether, from your best recollection, any one present, except Col. Green himself, expressed any confidence in the practicability of constructing wells by the method then pointed out by Col. Green.

A. I think no one did express any confidence in the practicability of the plan.

Q. 19. About how long was the interview referred to at which these explanations of Col. Green were made?

A. Probably but a short time; possibly ten or twenty minutes.

Q. 20. Can you name any other persons, not already named, who were there present? If so, name them.

A. I think A. L. Cole was present; J. C. Carmichael; A. J. Todd, I think, was there, and I think Rev. Mr. Grover—I don't recollect his initials—and probably others whose names I do not recall.

2656 Q. 21. Do you remember to have seen during the fall of

1861 a frame or standard or something of that kind in the yard of Col. Green and in the rear of his house?

A. I cannot say that I ever saw any such frame, though I was told at that time that there was one there.

Q. 22. State what the relation was in point of time of the date of the explanation given by Green, which you have mentioned, to the date of your hearing mention made of the frame or standard mentioned, stating which preceded the other in point of time, and about how long, as far as you may be able to state.

A. I think Col. Green made these explanations some time in July, and it was probably a month or two later, when the 76th regiment was in camp on the fair grounds, that I heard this frame alluded to.

Q. 23. State whether you were residing at Cortland village at the time of the shooting of McNett by Col. Green in camp upon the fair grounds mentioned.

A. I was residing in Cortland at that time.

Q. 24. State to what extent Col. Green gave up his time and attention to the raising and organizing of the regiment mentioned, so far as you know.

A. I think he gave his entire time and attention to raising and organizing the regiment.

Q. 25. State further whether, at the time of its being raised, you contemplated enlisting and going into the service in that regiment, and state whether or not you did enlist and go into the service; and, if not, why not.

A. I did intend to enlist and go into the service in that regiment, but I did not because of a very severe illness at the time the regiment was mustered in and went away.

Q. 26. Do you know whether Byron Mudge, at the time of the interview spoken of over Mills' store, when Green made his explanations mentioned, contemplated enlisting and going into the service with the regiment then forming; and, if so, whether in the capacity of a private or of an officer in the regiment?

A. I don't think any steps had been taken to organize the 76th regiment at that time. It may have been in June and not in July that this explanation was made by Col. Green; am not positive as to exact date; the organization was talked of, and members of the squad, including Mr. Mudge, intended going in. 2657–2669

(S'g'd) CHAS. M. NEWCOMB.

Sworn and subscribed to before me this 19th day of March, A. D. 1881.

[SEAL.] (S'g'd) JAMES E. HEREFORD,
Notary Public.

2670 Complainants' counsel, waiving further reply as unnecessary, calls THOMAS J. GETMAN as a witness.

THOMAS J. GETMAN, being called upon the part of complainants and duly sworn and cautioned, says:

2671 Q. 1. Please state your name, age, occupation, and place of residence.

A. Thomas J. Getman; 50 years of age; carpenter and joiner, and reside at Preble, Cortland county, N. Y.

Q. 2. Have you always lived in Preble? If you have been absent therefrom, state when and on what occasions.

A. I have not, as I was not born there; I was absent for 3 years in the army, in 1862, 1863, 1864, and 1865.

Q. 3. As a soldier or otherwise, and if as a soldier in what regiment?

A. Soldier in the 157th Regiment New York Volunteers.

Q. 4. How long previously to 1862 did you reside in Preble, and what part of Preble, in this county?

A. For 18 years, in the southern part of the town.

Q. 5. During those 18 years did you know Wm. E. Tallman and his brother Moses?

A. Yes, sir.

Q. 6. Was you in attendance as a witness here in Cortland for the complainants in this case in September last?

A. I was here, I think, in September for six days.

Q. 7. While here in attendance did you hear witnesses speak of a well that was said to have been put down by said Wm. E. Tallman on his farm in Preble, over which a windmill was erected for raising water from the same by means of a pump?

A. I did, sir.

Q. 8. What knowledge have you of that well? Please state.

A. I dug the well.

Q. 9. When, as near as you can state?

2672 A. I first dug it in May, 1859.

Q. 10. By whose request and in whose employment did you do it?

A. Wm. E. Tallman.

Q. 11. State what kind of a well it was as to being an ordinary dug and stoned well and how deep it was when first put down, and whether you assisted in stoning up the well, and who, if any one, assisted you in the work.

A. It was an ordinary dug and stoned well. It was somewhere from 10 to 11 feet deep when first put down. I stoned it up. Mr. Wm. E. Tallman, Jotham Williamson, Herman Smith, James Ready, and George Moore assisted me.

Q. 12. What do you know, if anything, as to the well becoming dry that season, and what means was taken to deepen it?

A. It became dry some time, I think, in July or August. Mr. Tallman had a short iron tube or cylinder, and he wanted to know if I would sink that in the well inside of the wall and get water. I told him I could, and did do it.

Q. 13. Please state if you had then had any previous experience in making dug or stoned wells.

A. I had.

Case adjourned until 7 o'clock p. m., March 2, 1881, at the law office of Geo. L. Waters, in Cortland village, N. Y.

7 o'clock p. m.—Case duly called and same parties present as before.

2673 Q. 14. State whether you was there in the stated employ of Wm. E. Tallman or not.

A. I was.

Q. 15. From this well so made in May, as you say, in 1859, how was the water raised from it—by what kind of a pump?

A. Cast-iron pitcher pump—common kind.

Q. 16. For what purpose was the water raised?

A. For watering stock and for drinking purposes for the laboring men that were there.

Q. 17. What kind of a sheet-iron tube or cylinder was used in sinking the well lower when it became dry in July or August of that year? Give its size as near as you remember.

A. I think it was in the neighborhood of a foot long and about from 12 to 15 inches in diameter.

Q. 18. State whether, when you was here in September, when evidence was being taken before the notary, Mr. Messenger, you saw and examined a sheet-iron tube then produced before that notary, and to which the attention of witnesses was then called, and whether the same is now produced to you.

(Counsel showing to the witness a sheet-iron cylinder or tube marked in one of these cases, viz: "Original section of sheet-iron tubing presented to the witness, James B. Share, and to which his testimony and Exhibit A relate. [L. S.] (S'g'd) H. J. Messenger, notary public.")

2674 Adjournment made at 8.10 p. m., March 2, 1881.

Case adjourned until 9 o'clock a. m., March 3d, 1881, at the same place.

MARCH 3, 1881—9 o'clock a. m.

Case duly called and same parties present, and case adjourned to the law office of Wm. D. Tuttle, of Cortland village, N. Y., and the examination of THOMAS J. GETMAN resumed:

A. I did; It was in September, and it was before the notary, Mr. Messenger.

Q. 19. State whether the tubing there presented and now presented to you is the same one used in sinking the well deeper, as you have stated.

A. I should think it was, or one very similar to it.

Q. 20. What next occurred, within your knowledge and recollection, in regard to this Wm. E. Tallman well? Please state.

A. I do not know as I get your meaning; and do you mean after the digging of the well and sinking of the tube?

Q. 21. Yes; I mean what next occurred after the well was deepened by means of the tube.

A. The well got dry again about the 1st of September. We took the stone all out and dug the well in the neighborhood of 3 feet or little over.

Q. 22. Please state who did it.

A. I did the work myself in the well.

Q. 23. By whose request and in whose employ?

A. By Wm. E. Tallman.

Q. 24. Who, if anybody, assisted you in the work?

A. William E. Tallman, Jotham Williamson, Herman Smith, and James Ready.

Q. 25. State whether or not the entire walls of the well were taken up and the stone placed out at the surface preparatory to sinking it deeper.

2675 A. They were.

Q. 26. Who did the digging of the well deeper down?

A. I did myself.

Q. 27. At what time are you able to state this sinking of the well deeper occurred? And, if there is any circumstance that enables you to fix the date, state what that circumstance was.

A. The 12th day of September, 1859; the camp-meeting there on Mr. Tallman's farm enables me to fix the date.

Q. 28. Have you referred to any memoranda as to the date of that camp-meeting before now giving your testimony? If so, state what the date of its commencement was.

A. I have; it commenced on Wednesday, September 14, 1859.

Q. 29. You may state if you yourself kept an eating stand for the attendance upon that camp-meeting.

A. I was a partner, keeping two such stands; my brother-in-law, Ezra Hilligus, was my partner; there never was but one camp-meeting on that ground.

Q. 30. Are you able to state from memory, aside from the memoranda you have referred to, the month and year this camp-meeting was held?

A. Yes, sir.

Q. 31. What enables you to say that this well was taken up and sunk deeper in September, 1859? State briefly the circumstances that enable you to say so.

2676 A. It was just previous to this camp-meeting when I was preparing to keep these stands; I was there at work for Mr. Wm. E. Tallman by the month.

Q. 32. What occurred, as you recollect, between you and Mr. Tallman as to taking up this well and sinking it deeper? State in substance what then passed between you, as you recollect it.

A. We intended to take it up after the camp-meeting, but it became dry, and he said he wanted to do it before. I had asked him previously to give me leave of absence of two weeks on account of camp-meeting; he granted me that leave; he came to me on Sunday evening of the 11th of September and says: "I have no claim to you, but I would like to take up that well to-morrow, and as none of the rest understand the business I want you to do it."

(Witness continuing:) I said to him we had a short time to get ready for our business of fixing for cooking for camp-meeting, but I said, As you have been kind to me in letting me off, I will do it if you will furnish me help enough so I can do it in one day. He said, You can have all the help that you want, and he said, We will get at it as soon as light in the morning; and we did get at it; the men I have named assisted me; we first threw the stone out of the well and dug it as deep as we wanted it by noon; we stoned it up in the afternoon and at night called it a complete well.

Q. 33. Down to what depth of water did you sink the well deeper, as you recollect it?

2677 A. Two feet

Q. 34. State whether you sunk the well deeper only two feet or whether you sunk it into two feet of water.

A. We sunk it into two feet of water; we sunk the well three feet or a little better—perhaps three feet and a half.

Q. 35. Did you commence the restoning the well from the bottom; and, if so, what kind of stone was used at the bottom in restoning through the water?

A. I did; flat field stone was used.

Q. 36. State whether the same stone that had been taken out of the well was used in restoning the well.

A. They were as far as they went.

Q. 37. State whether at the time that the well was thus deepened that the water upon the Preble flats was at low tide or not.

A. It was.

Q. 38. At the time of this deepening of this well had the windmill been erected for the purpose of raising the water from the well?

A. No, sir.

Q. 39. You may state whether you know that a windmill was erected there for that purpose by Mr. Wm. E. Tallman.

A. There was; I cannot tell the exact date; it was the last days of September, 1859; we went to work at it as soon as camp-meeting was over—that is, the windmill was erected then.

Q. 40. State whether you was in the employment of Mr.
2678 Wm. E. Tallman at that time and assisted in erecting the
windmill and in adjusting the pipe or pipes leading from the
pump into the water.

A. Yes, sir; I was and did assist, and Mr. Abram Van Denburg was the boss, and I assisted him. Mr. Wm. E. Tallman was there. Others assisted in raising the frame.

Q. 41. What kind of a pipe, as you recollect, was attached to the pump below leading into the water?

A. My impression, it was a lead pipe attached to the pump leading to an iron pump in the water.

Q. 42. Describe the iron pipe extending into the water to which the lead pipe leading from the pump was attached, and how the same was attached, according to your recollection.

A. The best of my recollection is the iron pump was originally from two and a half to three feet long and from one inch to one inch and a half in diameter. There were holes punched in the iron pipe at one end. I cannot say whether the lead pipe went into the iron pipe or not, but it is my best recollection that it did, and was wrapped around with rags and coal tar at the joint.

Q. 43. What do you say, Mr. Getman, whether the iron pipe was driven into the ground at the bottom of the well below any of its perforations; was it or was it not?

A. I have said that I thought it was driven into the ground slightly, but I want to take that back, as I never said it under oath. I think now it was not driven into the earth at all.

Q. 44. Did you ever think or state to anybody that the iron pipe was driven into the ground at the bottom of the well further than just to keep it in place at the bottom of the well?

A. I have said that it was my impression once that it might have been put into the ground just to steady it, and have said so to different parties, but I said that I would not say that it was put into the ground 6 inches or 4 feet. Those are the words I have used.

2679 Q. 45. Has anybody during the pendency of these examinations here in relation to the driven-well controversy offered you or proposed to pay you any sum of money if you would testify that the iron pipe was driven into the ground at the bottom of the well below its perforations at the lower end; if so, who was that person, and under what circumstances was the offer made?

A. I was at work in the shop in the mill straightening the bolt shaft. Mr. Moses T. Tallman and Mr. Wm. R. Robbins and Mr. David O. Crofoot were with me at work. Mr. Robbins and Mr. Crofoot had occasion to leave a few minutes, attending to the grist-mill. Mr. Tallman said, I saw Mr. Keach last evening and he said he will give you $25 if you will swear that the iron pipe was driven into the ground at the bottom of the well below the perforated holes, but he says he will not agree to pay it until the decision of this suit. I said, I will not swear to it for $25, nor twenty-five hundred dollars, nor any other sum. There has been too much manufactured evidence in this town already over this thing. Then I said, Mr. Keach rode with me and Mr. Crofoot down from the village last evening; why could not he have talked with me about it as well as to have you talk with me? That ended the conversation.

Recess taken from 12.15 to 1.30.

1.30 p. m.—Case duly called and same parties present.

Q. 46. When was this conversation?

A. In the neighborhood of about four weeks ago.

Q. 47. Who is Mr. Keach?

A. I do not know; he is a stranger to me. He came to Preble representing himself to be a lawyer.

2680 Q. 48. On what occasion did Mr. Keach come to Preble, and about when was it?

A. Well, I cannot say; it was the fore part of the winter. He came there to examine witnesses on this driven-well business. I did not get a chance to speak to the man until he sent for me to come to Mr. Tallman's.

Q. 49. When he sent for you to come to Mr. Tallman's did you go, and did you then learn from him (in connection with Mr. Tallman) whether he (Mr. Keach) was examining witnesses for or against the driven-well patent; and, if so, on which side?

A. I did go. I learned that he was examining witnesses against the patent by a receipt he read me that he got off East, somewhere near Troy.

Q. 50. Had you had personal conversation with Mr. Keach during the time of his taking such testimony there in Preble?

A. Nothing but once, and then a word or two. He said before he got away he should call on me to testify; that was all pertaining to this, except as when we got together and having fun, and one thing and another, in the hotel where they held their examination, at Preble village.

2681 Q. 51. Returning, now, to the well, when the windmill was put up and when this iron pipe was inserted, what was the depth of water in the well at that time?

A. About two feet. I do not know as there was any fall off from it from the time it was deepened until the windmill was put up.

Q. 52. Was there anything said or suggested in connection with putting that pipe down by Mr. William E. Tallman or anybody at that time that the well was to be perfected by driving the iron pipe down into the bottom of that well so as to get water from below the bottom of the well as it had been left after the deepening?

A. No, sir; not to my knowledge.

Q. 53. When did you first know or hear of a driven well (so called)?

A. I think it was in the fall of 1861.

Q. 54. Then where, according to your information, did it have its origin, and from whom?

A. On the Cortland fair ground, and I got my information from Michael Galivan, a soldier in Colonel Green's regiment.

2682 A. It looks to me like it; it bears the description I gave to Mr. Suggett, the counsel here appearing for the defendant.

Q. 55. I ask you, Mr. Getman, to state whether, since you have been called and have been in attendance as a witness in this case—to state what you recollect as to this Tallman-Preble well; whether you have talked freely with both sides, and as freely with the one as with the other side.

A. I have, sir; and have stated to each side what I recollected.

Q. 56. State now whether, from these conversations you have had with the parties and others, your memory in any degree has been refreshed as to that well and its condition at the time of its being deepened and as it was when you left it after the erection of the windmill.

A. On some points I think it has been refreshed some upon both sides.

Q. 57. Now, when you left the well at the time the windmill was erected was this perforated pipe driven into the ground at the bottom of the well so as to bring the perforations below earth, or were they above the bottom, with the perforations within the water of the well above the bottom. State your recollection on this point?

A. My recollection would be they were above the bottom of the well in water.

Q. 58. How confidently do you remember that this is so?

2683 A. I cannot state it any stronger than I have.

Q. 59. Do you or not recollect whether a copper strainer was attached to the lower extremity of the iron tube and this sheet-iron tubing was replaced in the well as deepened and when restoned, as guards against the influx of gravel to the disturbance of the valves of the pump?

A. I have no recollection of either the strainer being attached to the iron pipe or the tubing being placed in the well; I cannot say, either way, whether they were or were not.

Q. 60. Now, as a person accustomed to making wells, as you say you are, if this iron pipe was inserted at the bottom of the well, as you say you recollect it was, and a windmill was used for raising water from the well, would there be danger of disturbance to the valves of the pump from its drawing up gravel and sediment from the bottom of the well, unless some guard like that of a strainer at the end of the pipe was attached?

A. It would have a tendency to; yes, sir.

Q. 61. I ask you further to state whether, in the case supposed, there would be the same or similar danger from the influx of gravel or sediment through the perforations in the iron pipe standing above and at the bottom of the well, without any guard, and whether the insertion of this sheet-iron tubing around and extending as high as the perforations would serve as a guard against such influx.

2684 A. I do not think there would; it would some; it would not have the territory to draw from as from a whole well.

Q. 62. Have you constructed wells upon the Preble flats?

A. I have.

Q. 63. Is it or not true that in certain seasons of high water there more or less of sediment or gravel flows into the wells at or near the bottom, which would render necessary some guard against the influx of the same, to the disturbance of the valves of a pump operated by the power of a windmill?

A. Yes.

Direct examination closed at four o'clock p. m., March 3, 1881, and witness cross-examined by JOHN W. SUGGETT, Esq., counsel for defendant:

X Q. 1. Where were you born?

A. Town of Columbia, Herkimer county, State of New York.

X Q. 2. What is the year, month, and day of the month of your birth?

A. February 20th, 1831.

X Q. 3. What is your father's name?

A. Bartlett Getman.

X Q. 4. What was your mother's name?

A. Catharine Getman.

X Q. 5. What was the place of your father's birth?

A. I cannot tell you; I never heard him say, and I never saw the record.

2685 X Q. 6. Was he a native of the United States or of some foreign country?

A. Of the United States.

X Q. 7. What was the place of your mother's birth?

A. Town of Columbia, Herkimer county, State of New York.

X Q. 8. Do you remember the precise date of your birth or did you arrive at it by a process of mental arithmetic?

A. I do not remember it; I was there. All I know about it is what my parents have told me about it and the record.

X Q. 9. You have not fully answered my question. I now ask you, as to when you gave your answer as to the date of your birth a few minutes ago, did you then distinctly remember that date independently of calculating it back in your mind when it must have occurred?

A. The way I take your meaning, I do.

X Q. 10. I wish you to fairly understand the question. At the time you made your answer as to the precise date of your birth did you then remember that date precisely as you gave it or did you arrive at it by a mathematical calculation?

A. I remember the date as I gave it.

X Q. 11. How long did you live in Herkimer county?

A. Until I was about two years old.

X Q. 12. And where did you then move?

A. Town of Hastings, Oswego county.

X Q. 13. How many brothers and sisters did you have, if any, when you moved to the town of Hastings, Oswego county?

A. Not any.

X Q. 14. Have you any brothers or sisters now?

A. I have.

X Q. 15. How many?

A. Three brothers and one sister.

X Q. 16. Are they all that you ever had?

A. No, sir.

X Q. 17. How many are dead?

A. Three brothers and one sister.

2686 X Q. 18. Will you give the names of those who are dead?

A. Mary Getman, Franklin Getman, Wm. Henry Getman; these are all that were named.

X Q. 19. Will you now give the names of those that are living, except yourself?

A. Jeremiah Getman, Chauncey Getman, Geo. Alvin Getman, Catharine Louisa Getman.

X Q. 20. How long did you reside in Hastings, Oswego county, New York?

A. About two or two and a half years.

X Q. 21. Do you remember of living there?

A. I remember of instances happening while I was there.

X Q. 22. Have you a clear and distinct recollection of having lived there?

A. I have, by instances that happened while I lived there.

X Q. 23. Do you remember of having lived there of your own memory, or is it something somebody else told you of afterwards?

A. My own memory.

X Q. 24. Are the facts of which you remember while living there impressed as distinctly and vividly upon your memory as the facts alleged connected with Tallman's driven well, which occcurred 21 years ago?

A. No; I do not think I could remember as readily as I could 21 years ago.

X Q. 25. Where did you move after leaving Hastings, Oswego county, N. Y.?

A. To Preble, Cortland county, N. Y.

X Q. 26. Do you remember distinctly of moving to Preble, Cortland county, N. Y.?

A. No, sir.

X Q. 27. To what place in Preble did you move?

A. On to what is called Mount Toppin.

X Q. 28. How long did you live there?

A. Not but a short time; perhaps two or three months.

2687–2689 X Q. 29. Do you remember anything about it?

A. I remember living on the hill.

X Q. 30. Where did you move to then?

A. Preble village.

X Q. 31. How old were you when you moved to Preble village?

A. About five years old.

X Q. 32. Cannot you put it any nearer than that?

A. I cannot, for the reason I was 5 years old that winter, and I cannot say whether it was before I was five years old or after.

X Q. 33. How long did you live in the village?

A. I think it was about one year and a half.

X Q. 34. Is that as near as you can put it?

A. Yes, sir.

X Q. 35. Where did you then go to?

A. To a place called Woolston's Mills, in the town of Preble.

X Q. 36. How long did you live at Woolston's Mills?

A. One year.

X Q. 37. Where did you go then?

A. To a place called Baltimore, in Preble.

Case adjourned at 5.20 until 9 o'clock Friday, March 4, 1881, at same place.

2690 TIME, 10.15.

X Q. 38. After going to Baltimore will you now please go on and state the places where you lived, the time when you went to each place, how long you lived in each place, giving them in their consecutive order as they occurred, until the 17th day of August, 1862, first stating how long you lived in Baltimore.

A. I was in Baltimore from one to two or three months; I went away in February, in the year 1840, but will not be positive; I went to live with my grandfather, in the town of Columbia, Herkimer county, N. Y., and lived there until the summer time, when my grandmother died and my parents came back there, and after her death I went back home with my parents in the summer of 1841; I lived there, I think, until 1845 and then went back to Preble, and that has been my home ever since; moved into school district No. 4, near Woolston's Mills, after I came back to Preble in 1845; I moved into Isaac Cople's house in 1845; I lived there 4 or 5 months and then went into Richard S. Van Hoesen's house in the year 1845, in the fall, and in the meantime my father built a house and we moved into it in 1846; that was my home until 1852; in 1852 I lived in the house by myself; in 1853 I lived in a house of William E. Tallman; my brother-in-law bought the house my father built and in 1854 I lived in that; my brother-in-law is John Hilligus; in 1855 I moved in Hilligus' house, where I now live; I lived there until the spring of 1859 and then I moved into a house of Wm. E. Tallman's where I lived until I enlisted, August 17, 1862.

X Q. 39. You stated in your last answer that in 1853 you lived in a house of William E. Tallman. Will you please describe where that house is situated with reference to the present house of Moses E. Tallman, who owned it, and where the owner then lived? And also, as a second answer, please give the location of the house
2691 where you now live with reference to the house of Moses E.
Tallman; also please give the location and position of the present dwelling-house of Moses E. Tallman in respect to the dwelling-house of Wm. E. Tallman as it was situated in 1859; please pursue in the order laid down in the question.

A. It was very near due east course from Moses E. Tallman; I should think the distance 30 or 40 rods; Wm. E. Tallman then owned it and lived in the town of Tully, Onondaga county; the house I now live in is a little northeast of the house of Moses E. Tallman; the present dwelling-house of Moses E. Tallman is right across the street from the once dwelling-house of said Wm. E. Tallman, some 6 or 8 rods from it.

X Q. 40. Please state the year, month, and the day of the month when you first became acquainted or knew William E. Tallman, the place where it was, the place where he then resided, the place where you then resided, the circumstances or instance that brought about the acquaintance, and then pursue your knowledge of him and of his whereabouts from that time until you enlisted into the army; in answering please follow the order named in the question and confine yourself to the scope of the question.

A. I had seen the man several times before I became acquainted with him; it was in March, 1853, when I first became acquainted with him; I cannot tell the day of the month, but it was the latter part of the month; it was in the saw-mill he had just bought there; I was at work for his brother Moses on the farm; the saw-mill was standing idle, and he sent me into the mill to run it until he got a sawyer. Mr. Wm. E. Tallman was on his way to Homer and called in there to see how things were going. He said, You appear to be doing very well here; you had better take my mill to run. I said to him, I do not consider myself competent to take charge of it, but if I could get a good sawyer at a bargain I would talk with him. He said, I am going to Homer and I will return to-morrow and let you know. I went that evening and saw an uncle of mine, Henry Huffman; he was an old sawyer, and I told him what I could do, 2692 and I asked him if he would go in as a partner with me. He said, If you can get the mill to run for one-half I will go in with you. The next day Mr. Tallman came back from Homer, and I told him I had seen a partner, and had agreed that if we could get it for one-half we would take it. He said, It only lacks two or three days of the first day of April; we will let it go as it is and you may take possession the first day of April. Wm. E. Tallman then resided in Tully, Onondaga county; he lived there in Tully until the spring of 1854, and then he moved to Preble. The first year he lived there I did not know much about him. I said one year; I will say the first six months. My work was at Preble village, so I did not see him. After the first year and from that time up till I enlisted I worked for him a great deal.

X Q. 41. Will you please state in what capacity you worked for him; also what were the terms of the employment, as to whether by the day or the month, from the time he first moved onto the farm, in 1854, as you say, down to that time you enlisted, taking each year in its order, stating the time which you were employed in each year, the time you commenced employment and when you stopped, and be particularly careful not to diverge into matters and things foreign to the question? Please endeavor to answer the question in the order in which it is put.

2693 A. Well, I guess that would be impossible for any one to tell, as I worked sometimes by the job and sometimes by the day until 1859; then I hired to him by the month, commencing the first day of March, for nine months. The next spring I commenced the ninth day of March, and he was to furnish me steady employment for three months, working by the day; when my time was out he wanted to hire me for three months more, but we could not agree upon the price, and that ended our deal.

X Q. 42. Taking the dwelling-house of Wm. E. Tallman as a starting point, please go on and describe—1st, the creek or streams of water nearest to the house, their distance from the house, and in what direction they run; also describe the nearest lakes or ponds to the house; their respective distance from the house; also describe the road, giving its direction running along the south side of the house; also the road west of the house and its distance from the house; also the road next east of the house and its distance from the house; also the general lay of the land between the east and the west roads; also the distance one would be required to travel in going from the post office in Preble corners or village in going by way of the west road to the house; also the distance by the east road; also the distance in a direct line across lots; and also whether or not the stream on the east side of the house ever fails. Please confine yourself to the question, and answer in the order that the different parts thereof are put.

2694 A. A branch of the Tioughnioga, somewhere from 12 to 15 rods from the house, and runs west of south; the nearest lake is what is called the Goodell Lake, about three-quarters of a mile southerly; nearest mill-pond lies east or southeast of the house on Syracuse and Cortland plank road.

12 o'clock m.—Recess until 2 o'clock p. m.

2 O'CLOCK P. M.

Case duly called, with same parties present.

The pond is from one dozen to fifteen rods from the house; the road running along the south side of the house runs nearly east and west on a line of lots; the road west of the house is not far from three-fourths of a mile; this road runs northeast and southwest; the east road is thirty or forty rods from the house, running northeast and southwest; the land between the east and the west road is level; one would be required to travel about two miles in going from Preble to the house by way of the west road; the distance by the east road would be about two and one half miles; the distance across, in a direct line, would be one and one-fourth miles; I never knew the stream on the east side of the house to fail.

X Q. 43. Will you please give the length of the east and west roads, and also state, commencing at the east end, who lived adjacent to it in 1859, giving the distance that one person lives from the other?

A. Jotham Williamson lived at the east end of the road; William E. and Moses Tallman lived next, at a distance of twenty or twenty-five rods; the next house was Thomas J. Getman's house, about fifty rods distance, and the next was John Wilber, distance twenty or twenty-five rods; next was Clinton D. Callen, distance nearly one-half a mile.

X Q. 44. Was Jotham Williamson a man of a family, and, if so, who constituted his family, and what were the ages of the members thereof, and where is Jotham Williamson himself, if living, and also where are the members of his family? Please give their addresses if they are living.

2695 A. He was a man of family—wife and himself only; I do not know their ages; they are dead.

X Q. 45. Who then composed the family of Moses T. Tallman? And please state if any of the members are dead. Please also give the present addresses of those who are living.

A. Himself and wife, two sons and two daughters; they are all living; their addresses are Preble, except one; his is Manistee, Michigan.

X Q. 46. Is his name (that is, the one living at Manistee, Michigan) Henry C. Tallman, and is he a lawyer by profession? Also state whether or not if he was not at home on his father's farm then, in 1859; also state if at that time he was not full grown, or about full grown, and was very active in seeing what was going on on his uncle's (William E. Tallman's) farm, and in the neighborhood generally.

A. I think that is his name, and think he is a lawyer by profession; as to his being at home, I could not say; he was young and attending school, and as to his being around there on his father's farm, I hardly ever saw him; he was not full grown, but near it.

X Q. 47. Who composed the family of William E. Tallman in the year 1859, and what persons worked for him and boarded in his family; and also what persons worked for him occasionally or steady and did not board with him, excepting yourself?

A. His family consists of three persons—himself, his wife, and an adopted daughter; James Ready, George Moore, Herman Smith, and Nancy Hall and another girl, whose name I cannot recollect, and Abram Van Denburg; he did not have any one work for him who did not board with him that season that I remember of.

X Q. 48. Will you please state the names of the persons mentioned in your last answer who are now living and their present post-office addresses, as you understand them to be.

A. Mrs. William E. Tallman is in Syracuse, New York; James Ready is at Spofford Hollow or Otisco; George Moore is dead; Herman Smith is dead; I do not know whether Nancy Hall is
2696 dead or living; she went West, and the other girl is now Mrs.
Roscoe Butler and lives in Preble, and Abram Van Denburg's address is Preble.

X Q. 49. Will you now swear positively and do you so swear that you have given the names of all the persons that were in the employ of William E. Tallman regularly in the year 1859?

A. There was one man that worked in the grist-mill by the day or on shares, and I do not know where he is nor which way he worked. Cyrus Hall was there, but whether he worked for him or not I do not know; he is dead.

X Q. 50. Have you now given all the persons who were in the employ of or who worked by the day or otherwise for William E. Tallman in the year 1859?

A. I have, to the best of my knowledge. Occasionally we used to change works with Mr. Moses Tallman.

X Q. 51. Who worked for Moses Tallman in the year 1859, whether by the day, month, or otherwise? Please give their names and post-office addresses of those who are living.

A. Harman Carr, who is now dead; John Bogan—address, Janesville, Onondaga county, New York. This is all that I know of.

X Q. 52. Who constituted the family of John Wilbur in the year 1859, and who worked there by the month, day, or otherwise during that year? Give the names and post-office addresses of those who are now living.

A. There was himself and wife and one son and one daughter. The son's name was Edwin Wilbur and the daughter's name was Emily Wilbur. Edwin Wilbur is in Preble and Emily Wilbur's husband's name I think is Maycumber. I will not be positive. She is in California. Mr. and Mrs. Wilbur's post-office address is Preble. He never kept any month hands, to my knowledge. He so seldom hired that I cannot say whether he had any help that season or not.

X Q. 53. I now ask you the same question in reference to the family of De Witt C. Callen.

A. Himself, brothers, and mother. He had no family of his own. His address is Preble. His mother is dead and his brothers I know not where they are. He never had any hired men or women.

2697 & 2698 X Q. 54. When you were about to make your answer to the last question did the complainant, Noah J. Parsons, tell you to state that Callen had no family?

A. He did before I got through answering; I had not got to that yet.

X Q. 55. At the time that you made your answer to the last question did you ask any question of the complainant, Noah J. Parsons, or of complainants' counsel. Please state directly.

A. No, sir.

X Q. 56. Did not the complainant, Noah J. Parsons, voluntarily interfere by saying, "Callen did not have a family, did he, at the time?" whereupon you said, "No;" and he then said, "So state it, then?" Please answer directly if this is not so.

A. I was making my answer to the question; before I got through he interrupted me and asked the question called for, and I answered then, "He did not."

X Q. 57. After you had answered him "He did not" did he not state "So state it, then?" Please answer directly, yes or no.

A. Yes, sir.

2699
2700 X Q. 58. Now, returning to the east end of the cross-road and proceeding southerly on the north and south road: Who lived first of the right or left hand side? And in this connection make the same answer that you did, —put to you in reference to Wilbur Callen and others.

A. Amasa Topping lived first; the members of the family were his wife and son; he is dead; his wife is in Preble; his son's post-office address is Cortland, Cortland county. The next one was Avery M. Phelps; consisted of self, wife, one son, and two daughters; he is dead; I do not know the addresses of any of them. The next was Widow Galusha; she is dead. On the right-hand side was Dudley Andrus, his wife, and one daughter; his address was McLean, the last I knew; the address of the daughter I do not know. The next was Mills Van Hoesen, wife, two daughters, and one son; Mills Van Hoesen, his wife, and son's post-office address is Homer; one daughter is in Tully; the other is in Cortland, N. Y. Up the road Elijah Aldrich was the first man, his wife, two sons, and two daughters; the sons' names were John and Frederick; the daughters' names were Emily and Minnie Aldrich; I do not know the address of the last above. The next was Ezra Hilligus, on the right; the family consisted of himself, wife, and one daughter; their address is Cortland, Cortland county, N. Y. The next was John Hilligus, on the left, consisting of self and mother; his address is Preble; his mother is dead. The next is Richard S. Van Hoesen, consisting of self, wife, and two sons and two daughters; he is dead; his wife and sons' post-office address is Preble; the daughters are off East somewhere;

I do not know where. The next was the Widow Moore, on the left, consisting of self, four boys, and two daughters; the mother, one boy, and one girl is dead; one girl's address is Preble; one boy's is East Homer, one McGrawville, and one is a roaming character; I do not know where he is; the girl at Homer is Mary Ann; the boy at Homer is Peter H. More; the boy at McGrawville is Henry More; the boy that is roaming is John J. More, and George More is dead.

Five o'clock p. m.—Case adjourned until nine o'clock a. m., March 5, 1881, at same place.

2701 Saturday morning, March 5, 1881, 9 o'clock a. m.—Case duly called and same parties present.

X Q. 59. Now, returning to the west end of the cross-road: Who lived in 1859 first north of Callen's place on the north and south road? And then proceed to give the names of the residents along that road in the order with the same information you give in relation to Moses T. Tallman, Wm. E. Tallman, Edwin Miller, and De Witt C. Callen.

A. Thomas Perry was first on the right; I cannot give the names of all the members of the family; there was himself and wife and a number of children—some 8 or 9; I can give the names of only three, Leonard Perry, Clark Perry, Elizabeth Perry, now Mrs. Wm. Short; the rest of the children were all small, and I never learned their names; the post-office address of Mrs. Wm. Short is Homer or East Homer; Clark Perry is dead; Leonard Perry has been heard of once since the battle of Gettysburg and is probably West now. The next north was Cyrus Harris and two sisters, Leonie Harris and Lucy Harris; Leonie's post-office address is Preble; the other two are dead. The next was Isaac Squires, wife, and I don't know how many children; the names of the children, as far as I knew them, were John Squires, Wm. Squires, Richard Squires, Charles Squires, Mary Squires, Susan Squires; there were more children, but I never knew their names; Mary Squires is in Syracuse; she is a widow and her name is Hasbrook; Richard and Susan's post-office address is Preble; the rest are scattered all over and I cannot tell their addresses. The first one south of Callen was Hubbard and his wife; he is dead, and I do not know whether she is dead or not. The next was Henry Orton, his wife, two sons, and one daughter; their post-office address is Preble; I cannot give the address of but one of the children, and that is William. The next was D. W. Wilbur, wife, and one or two children; their address is Preble.

X Q. 60. What business did Thomas Perry follow in 1859? And state whether or not he did not work upon Wm. E. Tallman's farm during that year more or less.

2702 A. He worked on the farm, but I think he worked for himself; I think he worked by the month for Cyrus Harris; no, I will take that back; it was not that year; he was a hard-laboring man.

X Q. 61. Will you now swear positively, and do you so swear, that Thomas H. Perry was not to work for Wm. E. Tallman on that farm during that summer of 1859?

A. I would not swear positively whether he did or did not; if he did it was only for a few days; in case of emergency he might have called upon him for a few days' work.

X Q. 62. Will you now swear positively, and do you so swear, that Thomas H. Perry did not work for William E. Tallman on that farm on the working days of the month of September, 1859?

A. I cannot swear positively, direct or not, as I was not there and do not know.

X Q. 63. When I asked you to answer the last question and to answer it yes or no as called for, did the complainants' counsel interrupt and tell you to answer it just as you had a mind to? Please answer it yes or no.

A. Yes, sir; he interrupted but did not tell me to answer it as I had a mind to, but told the court to take it as I gave it.

X Q. 64. Mr. Getman, I wish to treat you fair, and when I ask a question requiring an answer yes or no, will you so answer without bringing in other matters?

A. I did not ask for them.

2703 A. I could not swear that he worked there, and I could not swear that he did not; he might have taken charge of a barn of Tallman's that he had hay in and kept horses that came to camp-meeting; I had no business there and did not go there to see.

X Q. 65. I wish to have you fully understand the question, Mr. Getman; did you understand the last question fully when you made your answer? Please answer directly.

A. I thought I did.

X Q. 66. Don't you know whether you did or not?

A. Yes, sir.

X Q. 67. Then you did understand it?

A. Yes, sir.

X Q. 68. And do you swear positively that you did understand it?

A. Yes, sir.

X Q. 69. Then, understanding it, will you please answer it again?

A. I cannot say yes to it and I cannot say no to it.

X Q. 70. Why did you make the answer to it, then, as you did?

A. I would like to know which answer it was.

X Q. 71. I now ask the notary to read to you cross-question 64, by which I ask you, and ask you whether you cannot answer that question yes or no.

Question X Q. No. 64 read to witness by notary.

A. I answered as correctly as I could, as I thought; I will endeavor, if he asks a question that I can answer yes or no, to do it.

X Q. 72. You have sworn positively that you understood cross-question No. 64, and you made an answer (which is here read to you); do you swear that that was an answer to cross-question No. 64? Please answer directly.

A. It was as correct an answer as I could give.

2704 X Q. 73. I now ask you whether you will swear positively, and do so swear, that Thomas H. Perry did not work for Wm. E. Tallman on each working day from the 1st day of September, 1859, until Wednesday, the 15th day of September, 1859.

A. No, sir; I do not swear that he did not so work for him.

X Q. 74. What did you mean, then, yesterday, when you swore that certain persons named that worked for Wm. E. Tallman there, and when pressed for a further answer as to whether or not you had named them all you swore you had, except the one that worked in the mill? Do you want to take back and change that answer now or to modify it in any way? If you do, you are at liberty to do so.

A. Tallman was in the habit of employing Perry to work for him on the west end of the farm; I myself worked in the saw-mill from one day to two weeks at a time; some of the time in the grist-mill; some of the time I would be on the road with a team; I did not know what was going on on the west part of the farm unless some of the hands told me.

X Q. 75. You boarded with Wm. E. Tallman then, did you not?

A. Yes, sir.

X Q. 76. And Thomas H. Perry used to come over there to get his orders for work, did he not?

A. I do not know; I never was present to any of their business conversations.

X Q. 77. And when you answered yesterday that you had given all the names, and sworn that you had, you were mistaken, as you now admit; is this not so?

A. I did not think of Mr. Perry; I will not swear that he worked there or that he did not; still, it is my impression that he did; I think, upon reflection, that he did help us on the well the day we took it up; I will not swear that he did, but it is my impression that he did.

X Q. 78. Now, you say you remember that Perry assisted you to take up the well; you mean the time on the 12th of September, 1859, which you have sworn to, I suppose; is this not so?

2705 A. I did not say I remembered it, but said it was my impression that it was the 12th day of September, 1859.

X Q. 79. I wish you now to reflect carefully and see if you cannot remember that he was there.

A. I cannot more than I have.

X Q. 80. He lived the nearest to the well, did he not?

A. Yes, sir.

X Q. 81. Now, permit me to refresh your memory. On the morning when the well was dug out did not Wm. E. Tallman go over to Perry's early in the morning and get him to come down to the well, and also get some tools there?

A. I cannot say what he did in the morning; I was not there in the morning; I did not see him; it was very seldom I saw Mr. Wm. E. Tallman in the morning before breakfast, as we had our chores to do at the barn and he very seldom came to the barn before breakfast, especially if he had business off; and as for tools, I had my own shovel and pick, well-buckets, rope and windlass, and I know nothing about any tools further.

X Q. 82. Was not Wm. E. Tallman with you when you lowered the well, as you have testified?

A. Yes, sir.

X Q. 83. How far was it from the well to Thomas H. Perry's house?

A. Well, I should judge, though I never measured it, to from forty to fifty rods.

X Q. 84. How far was it from the well to Callen's place?

A. On a direct line I should think it was fifty or sixty rods; it was next nearest to Perry's.

X Q. 85. And was the next nearest place to the well Williams'?

A. I think it was Mr. Harris', a distance of about sixty or seventy rods.

X Q. 86. Same question as to Wilburs'.

A. I should say from seventy to eighty rods there.

X Q. 87. This was the only well on the western part of the farm, was it not?

A. No, sir.

2706 X Q. 88. Was there another well?

A. Yes, sir.

X Q. 89. Where was that?

A. At the northwest of Mr. Perry's house.

X Q. 90. Where was it situated with reference to the road?

A. It was on a line front of the house and north.

X Q. 91. Was there any other well on the western part of the farm?

A. Not that I ever knew of.

X Q. 92. You had worked all over the farm since 1854 and would have known of such a well if there was one, would you not?

A. I think I should, unless it had been covered or filled up.

X Q. 93. Will you swear that there was not a well just inside of the fence on the east and west road on the western part of the farm?

A. I will swear that there was a frog hole there, but no well that I ever knew of.

X Q. 94. Did I ask you anything about a frog hole?

A. No, sir.

X Q. 95. Will you please try and confine yourself to the questions I put?

A. Yes, sir; as near as possible.

Recess from 12 m. until 2 o'clock p. m.

Two o'clock p. m.—Case duly called, with same parties present.

X Q. 96. Will you swear that there was not such a well and that it did not have a pump in it?

A. No, sir; I will not.

X Q. 97. On reflection, don't you now remember that there was such a well, and that there was a wooden pump on it?

A. No, sir; I do not; to the best of my recollection I cannot say that I ever saw one.

X Q. 98. Will you swear positively, and do you so swear, that such is not the fact?

2707 A. I do not.

X Q. 99. Did you not swear this forenoon that there was no well there? Please answer directly.

A. I did; that there was no well there to my knowledge.

X Q. 100. Did you say anything about your knowledge?

A. I do not know as I worded it in just that way; I said I never knew of one, but won't say just how I worded it.

X Q. 101. Do you know whether or not Wm. E. Tallman kept a diary in the year 1859?

A. Not to my own knowledge; I do not know it.

X Q. 102. Aside from your own knowledge what is your belief to it?

A. My belief is that a man of business like William E. Tallman that he did carry one.

X Q. 103. Wm. E. Tallman was a man who was given somewhat to making inventions and improvements, was he not?

A. Yes, sir.

X Q. 104. He was also a man, whenever he did anything, usually insisted upon having it done nicely and in a skillfully and workmanlike manner; is this not so?

A. Not wholly; no, sir; sometimes he would commence a job very nicely, get it pretty well completed, and then make a failure of it or make a botch job.

X Q. 105. He had a mechanical turn of mind, did he not, and was it not his constant practice to be constantly carrying out the ideas which had occurred to him in the way of new things when it was not absolutely necessary for him to do so?

A. He did have a mechanical turn of mind and he was constantly carrying out new ideas.

2708 Question re-read.

A. Yes, sir.

X Q. 106 And did he follow out the new things that came into his mind by the way of invention and discoveries to such an extent that he spent considerable amount of time and money?

A. Yes, sir.

X Q. 107. And in endeavoring to satisfy his mind as to new inventions and discoveries, did he, to quite an extent, neglect the business of his farm?

A. No, sir.

X Q. 108. Did he not spend a large amount of his time with inventions and discoveries which if he had not devoted himself to them he might have used in superintending his help in carrying on the farm?

A. Yes, sir; some considerable part of his time.

X Q. 109. After he had satisfied his mind that an invention or discovery was practicable by reducing the same to actual practice and testing it, would he not usually then turn his mind to something else, being apparently satisfied with convincing his own mind of its novelty and utility?

A. Sometimes; yes, sir.

X Q. 110. He was a careful and prudent man in his business affairs and in all his dealings, was he not?

A. Very careless in his business affairs; I considered him so; why I say that, it was by dealing with him I found him careless in making entries, in giving credit, or making charges; very often in making settlements had to make guess-work of it; he was fair and square in his dealings.

X Q. 111. Was he not so careful in regard to what he did, and
kept so accurate a diary as to even note everything that he
2709 did on the farm, where he was even to the extent of noting
when he went to church on Sunday and who went with him,
in the year 1859?

A. I cannot say as to his diary, but know about his books; I have never seen him make an entry in his diary to my knowledge.

X Q. 112. Will you swear that he did not keep a diary?

A. No, sir, I will not.

X Q. 113. Now, will you swear positively that you first dug the well in 1859? Please answer yes or no.

A. I first dug the well where the windmill was in May, 1859.

X Q. 114. And you swear to that positively and unequivocally, that that well was dug in May, 1859, and that you cannot possibly be mistaken about it?

A. I do.

X Q. 115. Have you got any written memoranda that enabled you to fix the time as May, 1859?

A. No, sir; I have not.

X Q. 116. And you claim to remember that time by nothing but your memory, when it occurred nearly twenty-two years ago? Answer directly.

A. I do, sir.

X Q. 117. And you again assert, do you, that you are positive, beyond any doubt whatever, that that well was dug in May, 1859?

2710 A. It might have been the very first days of June; it was
my impression that it was in May, but it might have been
in June.

Case adjourned until Monday, March 7, 1881, at same place; time, 4 o'clock.

Nine o'clock a. m., March 7, 1881—Case duly called, with same parties present.

X Q. 118. Was it simply your impression that it was in May, or did you have any positive recollection upon the subject; and, as you have had time to reflect upon it since last Saturday night, what do you say it is now?

A. Well, it was my impression. I have no record as to the month. I might be mistaken.

X Q. 119. You know the parties to this suit, do you not?

A. I have met Mr. Andrews; I am not personally acquainted with him.

X Q. 120. Did not Mr. Waters, the complainants' counsel here present, just say to you that Mr. Parsons was one of the parties to this suit?

A. He did, as he understood it. I will put it just as he did.

X Q. 121. Do you know whether the case in which Mr. Keach appeared at Preble and to which you testified about was in any way connected, directly or indirectly, with this case?

A. I do not; no, sir.

X Q. 122. None of the counsel whom you have seen acting for the defendant in this case were ever present or had anything to do with that case, did they?

A. I never saw any of them about there. I never was in their room where they were taking testimony.

X Q. 123. You have stated that Moses T. Tallman made you a very improper, corrupt, and wicked offer; did he ever make to you any other offer than that?

A. He did, I think, make me a very corrupt offer and no other offer before or since.

X Q. 124. Has any other person, directly or indirectly, made you any offer to give or withhold testimony in this case?

A. No, sir.

2711 X Q. 125. So far as the defendant is concerned in this case or his counsel, have they treated you fairly and uprightly in every way?

A. I think they have; yes, sir.

X Q. 126. Have they, directly or indirectly, attempted in any way to influence you to swear to anything different in this case than to what you believe to be the truth and facts in regard to the same?

A. No, sir; not in this case.

X Q. 127. In all of your intercourse with the different counsel who have appeared for the defendant in this case at Cortland or Preble, or elsewhere, have you been treated gentlemanly and fairly by them?

A. I have.

X Q. 128. You have seen Mr. Lake, one of the defendant's solicitors in this case, have you not, and did he not treat you gentlemanly in every respect?

A. I saw him here in this place and he treated me well. I cannot say as I ever passed a word with him; upon reflection, I think I had an introduction to him.

X Q. 129. Did Mr. Lake ever in any way, directly or indirectly, to your knowledge, attempt to influence you in regard to the testimony which you was to give in this case?

A. No, sir.

X Q. 130. I ask you the same question in relation to Mr. Irving H. Palmer.

A. No, sir.

X Q. 131. Now, I ask you the same question in relation to myself.

A. No, sir.

X Q. 132. I now show you a section of wrought-iron gas pipe perforated and its bottom end sharpened, photographs of which have been put in in this case and which I here ask Wm. D. Tuttle to mark for the purposes of identification, which he does by
2712 affixing a tag and marking thereon the title of this case.

(Notary here does the same and marks it for identification as follows: "United States circuit court, district of Iowa. Wm. D. Andrews *et al. vs.* George Leland. Part of original piece of pipe identified by Thomas J. Getman in his testimony in the above case and marked for the purpose of identification. Dated Cortland, N. Y., March 7, 1881. (S'g'd) William D. Tuttle, notary public.")

X Q. 132½. Now, I ask if you do not indentify it.

A. I identify it in this way: It is the one or one very similar to it.

X Q. 133. Have you any doubt whatever, Mr. Getman, that this is the pipe?

A. I think it is the pipe.

X Q. 134. Do you remember an occasion when Mr. Palmer and myself showed you this section of pipe, marked as stated in X Q. No. 132, and, after asking you about the pipe, we produced it for your inspection, when you exclaimed, "Yes, that is a part of that original pipe; I would have known it anywhere; it was punched with a horseshoe punch, and, in doing it, it was battered in as it now appears?"

A. Yes, sir; I remember Mr. Suggett, but will not say that Mr. Palmer was with him; I did not know the man.

X Q. 135. Your last answer, perhaps, appears a little ambiguous. Do you wish to answer it in the affirmative?

A. I will say that Mr. Suggett came there with a stranger; I did not know him; he asked me to give a description of the pipe, as near as I could; Mr. Suggett showed me a piece of pipe, and I said it was the pipe.

X Q. 136. And did you in that conversation state that you would know the pipe before it was shown to you because it was sharpened and that the holes were punched with a blacksmith's horseshoe punch?

A. I think I said it was battered up at the end to close it and punched with a horseshoe punch.

2713 X Q. 137. Do you remember about when, Mr. Getman, this conversation was between yourself, myself, and the gentleman who was with me?

A. I do not; only the evening of the day, between sundown and dark.

X Q. 138. Did we have a conversation with you on the same day prior to the one in the evening?

A. I do not recollect.

X Q. 139. Permit me to refresh your recollection. Did not I and a gentleman who was with me have a conversation with you in your yard about noon, and was not that conversation in reference to an affidavit which you had made and in regard to the person who obtained it from you and the circumstances under which it was obtained?

A. There was such a circumstance and such a conversation, but I could not say it was that day or not.

X Q. 140. Allow me further to refresh your recollection. I and the gentleman who was with me were in a cutter and you came out and talked with us while we were in the cuttter. Is this not so?

A. Not on that day.

X Q. 141. What rig did we have, then, and where did the conversation take place?

A. Well, as to that I cannot say; there was a time once, about noon, that Mr. Suggett was there and in my house. I was interviewed quite often on both sides, but cannot tell by whom nor give the dates.

X Q. 142. Did you not on one occasion state to me and the gentleman who was with me, in the winter of 1878–'9, that a gentleman came from Cortland some time previous to that time; that he represented himself to be a lawyer and to be in the interests of Judge Duell; that he asked you to make an affidavit as to this Tallman well; that you were busy cutting up pumpkins in the barn, and that he sat down and wrote out an affidavit in the barn; did not read it to you, and that you went over to the justice's with him and signed it, for which he paid you?

A. I think I did state that there was a gentleman came there and asked me if I was willing to make an affidavit in regard to
2714 that well, but whether I said he represented himself to be a
lawyer or I took him to be a lawyer I will not be positive which I said, and I think I told him I had been interviewed with Mr. Duell in regard to it, and I did not want to say anything that would conflict with that. I do not know as he represented himself to be an employé of Mr. Duell. I said I am willing to give an affidavit, as I am poor and do not wish to be dragged away from home and away from my business. He says to me an affidavit will not take you away from your home or away from your business. He drew an affidavit, and after he got through he asked me who the justices of the peace were. I gave him their names. He asked me if I could go up with him. I told him I could not very well then, as it was very near noon and I was very busy there; that after dinner I had got to go through the village on the hill to look at some cattle, and I did so. I went to the hotel and found Mr. Eben Daley, then a justice of the peace. Mr. Parsons shortly afterwards came in. I did not know his name then, but found it out afterwards. Mr. Parsons gave the papers to Eben Daley, and I could not say whether he read them over or not, but it is my impression he did. I could not say whether Mr. Parsons read them to me or not.

X Q. 143. What was the date you made this affidavit?

A. I cannot say, as I kept no record of it.

X Q. 144. Cannot you give the year?

A. I think it was in the fall of 1877, but I will not be positive.

X Q. 145. Have you signed any other affidavits or any other papers or permitted others to sign them for you, directly or indirectly, save this one which you have mentioned?

A. I have signed other papers, but not in regard to this—not in connection with the well business. I have not authorized anybody to sign any papers whatever.

X Q. 146. With what kind of instrument was this affidavit written?

A. Pen and ink.

X Q. 147. What kind of paper was it written on?

A. I could not say whether it was such as the notary is writing upon or foolscap. It was large sheets.

2715 & 2716 X Q. 148. Was it one sheet or more than one?

A. I cannot say, as I do not recollect.

X Q. 149. Was it a long affidavit or a short one?

A. It was not very lengthy, if my recollection serves me right.

X Q. 150. Did it occupy more than one sheet of foolscap?

A. I do not think it occupied one whole sheet of foolscap.

X Q. 151. Was the sheet cut in two?

A. I could not answer that question, for I did not take it in my hand.

X Q. 152. Have you sworn to or signed any papers before Eben Daley since that time?

A. No, sir.

2717 12.30 p. m.—Recess until 2 p. m.

2 p. m.—Case duly called and held open at complainants' request until 2.45, with same parties present.

X Q. 153. Before dinner we were upon the subject of the affidavit. Did the complainant, Noah J. Parsons, who has been present at this and all other examinations, obtain from you that affidavit?

A. He obtained an affidavit of me.

X Q. 154. And is that the affidavit which you have been testifying about this forenoon and the only affidavit which he ever did obtain from you?

A, Yes, sir; or anybody else.

X Q. 155. And has he been present during all this examination, since March 2d?

A. Not quite; he has been out at short intervals.

X Q. 156. Has he not here acted as counsel and made objections?

2718 A. I think he was.

X Q. 157. Now, returning to your work for William E. Tallman in the year 1859, when did you commence work in that year, what was the length of time for which you were hired, and what did you receive a month?

A. I commenced about the 1st of March; I could not say just what day; I hired to him for nine months; I think the consideration was fifteen dollars.

X Q. 158. Have you got any written memoranda, accounts, or any written evidence whatever of your work for him that year?

A. I have not. The book was destroyed when I was in the army. My wife died and everything was destroyed.

X Q. 159. Will you now swear positively and unequivocally that you worked for William E. Tallman in the year 1859 by the month?

A. Yes, sir.

X Q. 160. I wish you to now reflect, and if you wish to change your answer you now have the privilege of so doing.

A. I do not wish to change it.

X Q. 161. Did the complainants' counsel say to you or say in your presence before you answered the last question, "Let him answer, Parsons; he can't bulldoze him?" Please answer directly.

A. I did not understand what he said to Mr. Parsons; I heard him say, "If he is going to bulldoze him I will risk Getman."

2719 X Q. 162. You have just heard a statement read which the complainants' counsel has made. Was he present in the room at all when cross-question No. 160 was put to you?

A. I think not.

X Q. 163. Did not the complainant Parsons say to you when I produced the book or say in your presence, "He has got one of his father's old diaries?"

A. He did, I think; he might have said it in my presence. It did not amount to anything. He said it in my presence, but not to me.

X Q. 164. Are you acquainted with the handwriting of William E. Tallman?

A. I used to be, but have not seen any of it for years.

X Q. 165. I now show you a book and ask you to look at the handwriting and say whether or not it is Wm. E. Tallman's.

(Book shown to the witness and he is asked if it is not in the handwriting of Wm. E. Tallman.)

A. It looks like it, but I could not swear positively that it was or not.

(Book here marked by notary "William D. Tuttle, marked for identification March 7, 1881.")

X Q. 166. Will you now swear positively and do you so swear that you did not work for Wm. E. Tallman in the year 1859 by the day and receive your pay by the day?

A. I do not swear so.

X Q. 167. Do you mean by your last answer that you do not know whether you worked by the day or by the month?

A. I worked by the month.

X Q. 168. And during the time you worked by the month did you work by the day any?

A. No, sir. I want to make a little explanation there. There was a spell the general sawyer was sick; Mr. Tallman wanted I should run the mill; make 12 hours a day's work; if the grist-mill took the water, so that I could not do it by daylight, to work nights.

2720 X Q. 169. Have you not sworn once positively and unequivocally that you worked only by the month?

A. I have, and I do not claim now that I worked any other way than by the month that season.

X Q. 170. I ask you now whether you will swear that you did not work in the months of July, August, and September of that year at various works and received six shillings a day, for which you settled with Wm. E. Tallman in that year. Please answer directly.

A. No, sir.

X Q. 171. Do you mean by your last answer that you did not so work?

A. Not by the day in those months of that year.

X Q. 172. Did you not also, in the month of July, work for Wm. E. Tallman, drawing hay two days, for which you charged him one dollar and eighty cents?

A. I do not think I did, unless it was on Sunday or in the night. I did that for him that season.

X Q. 173. Will you swear positively that such was not the fact?

A. I swear positively that it was not in the daytime, unless it was on Sunday that season.

X Q. 174. I now show a book, and ask you if it is not in the handwriting of Wm. E. Tallman?

A. It looks like his handwriting, but I would not swear positively whether it was or was not.

(Book shown to witness and marked for identification by notary, "Wm. Tuttle, marked for identification March 7, 1881'.')

X Q. 175. When will you swear positively that you settled for the work that you did for Wm. E. Tallman in the year 1859?

A. I cannot swear when I did settle—whether I settled when my time was out or it run until towards spring.

X Q. 176. Have you any recollection of the fact one way or the other?

A. I have not; no, sir.

X Q. 177. And you have no recollection of how the accounts stood and what you brought in and was allowed for, nor what Mr. Tallman's charges were, nor how it was finally settled, have you?

2721 A. No, sir.

X Q. 178. You swore, then, on your direct examination from your unaided memory alone, did you not?

A. No, sir. I used Mr. J. D. F. Woolston's diary for the year 1859. I referred to dates in his diary.

X Q. 179. Did you keep J. D. F. Woolston's diary that year?

A. No, sir.

X Q. 180. Do you know of your own knowledge that Woolston kept a diary?

A. I do not.

X Q. 181. What made you swear positively to facts of which you had no knowledge except from Woolston's diary?

A. From knowledge that the camp-meeting was that year, and that I worked for Wm. E. Tallman that year, and it was the last year he carried on the farm himself.

X Q. 182. You have again evaded my question. I ask that it again be read to you and will you try and answer my question?

A. I took it from the date of the camp-meeting.

Five o'clock p. m.—Case adjourned until one o'clock p. m., Tuesday, March 8, 1881.

One o'clock p. m., Tuesday, March 8, 1881.—Case duly called, with same parties present, and case duly adjourned until 9 o'clock a. m., Wednesday, March 9, 1881.

March 9, 1881, 9 o'clock a. m.—Case duly called, with same parties present, and case held open until 9.30 a. m.

X Q. 183. In giving your testimony on your direct examination you swore from J. D. F. Woolston's diary; is this not so? Please answer yes or no.

A. I did in regard to taking up and redigging the well.

X Q. 184. Have you that diary here?

A. I have.

X Q. 185. Will you produce it for inspection?

A. I will, sir. (The witness here produces the diary.)

2722 Defendants' counsel here asks that Wm. D. Tuttle mark this diary; diary marked by notary, "Wm. D. Tuttle, marked for identification March 9, 1881."

X Q. 186. Have you such perfect and complete faith in John D. F. Woolston that you have sworn to dates which he has made?

A. I have, sir; for the reason that he is very accurate or means to be very accurate.

X Q. 187. Is he considered by you as a man of great intelligence, honesty, and integrity?

A. He is, sir.

X Q. 188. And you consider his intelligence, honesty, and integrity to such an extent that anything that he says or does you would implicitly believe; is this not so?

A. I would without hesitation.

X Q. 189. You have said that all of your books and papers relating to the various subject-matters upon which you have testified to here were all lost and destroyed fifteen years ago and over?

A. I did; in the years 1863, 1864, and 1865; some time during those years.

X Q. 190. And your attention was never called to them or their contents or to the subject-matters upon which you have been here examined from the 17th day of August, 1862, until the year 1877, a period of over fifteen years; is this so?

A. It is; my attention was not called to it until the 7th day of March, 1881.

X Q. 191. You have seen some of Wm. E. Tallman's books which he kept during those years, which books have been marked by Wm.

D. Tuttle, in this case, for identification; now, Mr. Getman, I ask you whether you confidently and positively put your unaided memory alone against those books as to the subject-matters upon which you have been examined in this case.

2723 A. I have seen some books. I cannot say that they were Wm. E. Tallman's, positively, and bearing those dates. I do not put my unaided memory alone against those books.

X Q. 192. You have once sworn positively and unequivocally that you did not work for Wm. E. Tallman in the month of July, 1859, by the day; I wish to treat you fairly, Mr. Getman, and since your last attendance here as a witness, as you inform me, you have been home; you have had talks with the complainants' counsel; you have, no doubt, revolved the subject over in your mind more or less and talked with your wife; you have also talked with the complainant, Noah J. Parsons; is this not all so?

A. It is, and also with lots of other people.

X Q. 193. That being so, I now ask you again and will give you an opportunity to do so, if you desire, if you wish to take back what you swore to before or to change your answer.

A. I do not. I have no reason to dispute Mr. Tallman's books. I do not know why he has got it down that I worked by the day in July or August.

X Q. 194. When you were about answering the last questions, did not the complainant, Noah J. Parsons, say, "He has no such record of your work in Wm. E. Tallman's books; it is only an insinuation," or words to that effect? Please answer yes or no.

—. ——.

2724 11 o'clock a. m.—Case held open by request of complainant.

11.20 a. m.—Case adjourned until 2 o'clock p. m.

2 o'clock p. m.—Case duly called and same parties present.

2725 X Q. 195. We now return to the subject of the conversation you had with Moses T. Tallman in reference with an attempt to bribe. When did that conversation take place?

A. I cannot say as to the date; it was when I was at home, somewhere from 4t o 6 weeks ago.

X Q. 196. Can you tell if you were at home?

A. I think I can.

X Q. 197. How?

A. By the entry of my day's work.

X Q. 198. Have you got your day's work entered on any memorandum book?

2726 A. I think I have; I may be mistaken, but I generally put my time down Saturday nights; I think I put this down separate as Moses Tallman was to pay one-half of it.

X Q. 199. Will you produce that book?

A. I will if you will give me time.

X Q. 200. Will you get it to-night after the examination?

A. I will if you will pay my expenses there and back.

X Q. 201. You have made a serious charge against the character of Moses T. Tallman; you have accused him of an attempt to commit the crime of subornation, of perjury, which is a felony; I now ask you, sir, if you are not willing to get that book for the purpose of showing the exact time without being paid your expenses?

A. I would if I had any other business, but I do not think it is right to go on purpose and pay my own expenses and take time to go and get back on the cars; I could not do that before to-morrow noon.

X Q. 202. You have not been subpœnaed here, have you?

A. I want an explanation on that. By a written subpœna do you mean?

X Q. 203. I mean by a process of the court served upon you.

A. No, sir.

X Q. 204. You never have been so subpœnaed, have you, by the complainants?

A. No, sir.

X Q. 205. Moses T. Tallman is your neighbor, is he not? Please answer yes or no.

A. Yes, sir.

X Q. 206. He has given you employment more or less for a great many years, has he not? Please answer yes or no.

2727 A. Some; not such a terrible sight.

X Q. 207. Just previous to your last answer the complainants' counsel made a statement; did he not make that statement in your presence so that you heard it all when it was again read to you or in your presence by Wm. D. Tuttle, here acting?

A. He did.

X Q. 208. Has not Mr. Moses T. Tallman conducted himself fairly, uprightly, and honestly, so far as you know, excepting this occasion?

A. He has.

X Q. 209. Have you not, prior to this occasion, always considered Moses T. Tallman a high-minded, upright, intelligent, Christian gentleman?

A. Yes, sir.

X Q. 210. Prior to this occasion did not Mr. Moses T. Tallman treat you fairly as a neighbor or otherwise?

A. Yes, sir.

X Q. 211. Has not and does not Mr. Moses T. Tallman stand high in the estimation of his neighbors and in the community where he lives?

A. He does, for anything that I know.

X Q. 212. Is he not well advanced in age?

A. He is somewhat in years; yes, sir.

X Q. 213. Has he not lived in that community and neighborhood for a great many years?

A. He has.

X Q. 214. Has he not by industrious habits and strict application to business amassed considerable property so that he is independent?

A. It is so reported; yes, sir.

X Q. 215. You are comparatively a poor man, are you not?

A. Yes, sir.

X Q. 216. Can you assign the time any more definitely when
this affair took place, when you swear this offer of twenty-
2728 five dollars was made to you, than you have already done
without the aid of your book?

A. I cannot.

X Q. 217. And still you are unwilling, without the payment of a paltry sum for your expenses, to go to your home and get that book, when you thus suddenly seek by your unsupported testimony and by the force of your own breath to destroy the character and reputation of Moses T. Tallman, who, as you swear, has been your friend and neighbor, and who stands high in the community where he lives; is this so? Please answer yes or no.

A. I am unwilling to go on purpose for it, as I am poor and cannot afford it and my family need my wages.

X Q. 218. The railroad fare both ways would only be fifty cents, would it?

A. Sixty or sixty-two cents, I think.

X Q. 219. Now, Mr. Getman, being unable, by reason of your refusal to produce this book, to fix the exact time when this conversation took place from you, can you fix the place where it took place?

A. In their workshop where their planing-machine, turning-lathe, and small circular saw is, in the town of Preble, Cortland Co., State of New York.

X Q. 220. You are here giving your testimony in the village of Cortland, Cortland Co., and State of New York, are you not?

2729 A. Yes, sir.

X Q. 221. Do you consider the oath you have taken in this case as binding upon you?

A. I do.

X Q. 222. You said, sir, that Mr. Robbins and Mr. Crofoot stepped out when Moses T. Tallman made this proposition with you as to offering $25; will you please give the full names of Mr. Crofoot and Mr. Robbins, so there cannot be any doubt as to the persons you intend?

A. I do not want it to be understood that Mr. Tallman made me this offer, but a statement coming from Mr. Keach through Mr. Tallman.

X Q. 223. (Question repeated.) Please answer it directly.

A. David O. Crofoot and Wm. R. Robbins.

X Q. 224. What were you doing?

A. Pulling tacks to loosen the bolt-cloth.

X Q. 225. How long did this conversation last?

A. Perhaps not over five minutes.

X Q. 226. How long were you engaged in pulling tacks?

A. I could not say exactly; it might have been one-half hour and it might have been an hour.

X Q. 227. Now, sir, will you swear positively, and do you so swear, that Moses Tallman was with you alone a single instant while you were pulling out these tacks?

A. Yes, sir.

X Q. 228. And do you swear positively that David O. Crofoot and William Robbins were not then and there in that place?

A. I think they were in the building, but not in that room.

X Q. 229. You have evaded the question.

(Question repeated.)

A. They were not in the room.

X Q. 230. Did you fix this bolt-shaft more than upon that occasion?

A. No, sir.

2730 X Q. 231. What day of the week was it?

A. I could not say; it was part of two days taking it out and fixing it back.

X Q. 232. What day of the week was it you were taking the tacks out?

A. I could not say now.

X Q. 233. Do you swear positively and do you so swear that it was not over six weeks ago?

A. I do not.

X Q. 234. You have no recollection, then, as to the time of this event, which occurred less than 6 months ago, although you have recollection of dates which occurred 21 years ago; is this not so? Please answer yes or no.

A. Yes, sir.

X Q. 235. Is your memory failing you of late?

A. I do not think it is.

X Q. 236. Is it as good as it was 21 years ago? Please answer yes or no.

A. Yes, sir; it is if I charge my memory as I did 21 years ago.

X Q. 237. You said that Calvin E. Keach rode down with you the night before, and why did he not make this proposition to you himself; is this not so?

A. In the afternoon; yes, sir; before.

X Q. 238. Is it not true, also, that David O. Crofoot was with you and Mr. Keach on that occasion?

A. It was, and had his own horse and cutter.

X Q. 239. Do you remember what day of the week it was that you and Keach and Crofoot rode together in the cutter?

A. I do not; I did not charge my mind with it.

X Q. 240. And you know nothing of the date whatever?

A. Not without referring to my book; no, sir.

X Q. 241. Was it on Sunday evening?

A. No, sir; I should think it was near the middle of the week.

X Q. 242. Did Mr. Keach have a conversation subsequently to his riding down with you and Crofoot at Moses T. Tallman's house?

2731–2733 A. Yes, sir.

X Q. 243. Do you remember who was present at that conversation?

A. Moses T. Tallman; Jerusha Tallman, his wife; Susan Squires; I do not know whether his daughter was present or not; I would not say; I do not know whether Susan Squires was present all the while or not.

X Q. 244. Did you ever have any other conversation with Keach at Tallman's house than the one stated in the last answer?

A. No, sir.

X Q. 245. What day of the week did this conversation take place?

A. On Sunday afternoon, just at night.

X Q. 246. Did you in that conversation state that Mr. Parsons, the complainant, had paid you twenty dollars? Please answer yes or no.

A. No, sir; not to my knowledge.

X Q. 247. Will you swear to that positively?

A. Yes, sir; there was no such conversation in that interview.

X Q. 248. Had you not stated previously to that to various people in and about Preble that you could swear to enough in this case if you had a mind to to send the Green patent to hell, or words to that effect? Please answer yes or no.

A. No, sir; never to my knowledge.

5 o'clock p. m.—Case adjourned until 9 o'clock a. m., March 10, 1881, at same place.

9 o'clock a. m., March 10, 1881.—Case duly called, with same parties present.

The witness also says he is not now well.

2734–2737 X Q. 249. That there may be no mistake, Mr. Getman, that I stated the truth in my statement on the record that you are unwell and desire to go home, I now ask you whether or not that is so?

A. I said I felt unwell, and I would rather be at home than be away; but if they insisted upon it I would stay.

Adjourned until 1.30 Friday, March 11, 1881, at same place.

2738 X Q. 250. Mr. Getman, have you recovered from your last illness?

A. Not wholly; no, sir.

X Q. 251. When you were about to answer the last question did the complainants' counsel laugh in a derisive way and say "You are now trying to come the same game that you did yesterday?"

A. I think he did.

X Q. 252. During this examination has Mr. Tuttle been out of the room a great deal during it, being called out?

A. I think he has; yes, sir.

X Q. 253. And while he was out did the defendants' counsel wait patiently for him to return?

A. He did.

X Q. 254. You were present here yesterday morning, were you not, and, although I was then sick and stated that you were also sick, as you had previously informed me, were not all the
2739 requests that I made for adjournment treated in a contemptuous and insolent manner; was this not the truth?

A. I was here present; well, I could not say to the last, as I did not pay attention to that; I was paying attention to my own feelings.

X Q. 255. If you had your own way and was not urged by the complainants would you not now, on account of your feelings, be at home?

A. I should be at home, but they have not urged me.

X Q. 256. Do you feel unwell now?

A. I do some, but not as bad as I was yesterday.

X Q. 257. Would you rather that the case be adjourned now until Monday?

A. I had not; seeing that I am here, I would like to get through; I do not wish to come down again.

X Q. 258. Do you think that you caught cold by reason of the coldness of the room in which you were being examined?

A. I think I did; it was heated by hot air, and I am not used to it.

X Q. 259. Has it been extremely cold at spells, so as to render it very uncomfortable?

A. It has been portions of the time; during the fore part of the day.

X Q. 260. Has the defendant's counsel repeatedly protested against the place by reason of the coldness?

2740 A. I do not know that he has protested against it; he had said it was cold and not as comfortable as his own office.

X Q. 261. Has he informed you and have you also informed him that he believed that we both caught cold in the office?

A. Yes, sir.

X Q. 262. Did you meet me coming to my office this morning about eleven o'clock, when I told you that I had just got up; that I was sick and should ask for an adjournment, which, I hoped, would be granted on that account?

A. I did.

X Q. 263. Did you then inform me that you were still feeling very unwell, but would rather stick it through than come down to such a miserable place to take testimony again, or words to that effect?

A. I told you that I felt unwell, but do not know that I mentioned anything about a miserable place; I am very comfortable now.

X Q. 264. This testimony has been taken almost entirely in Geo. L. Waters' office, has it not?

A. All but one day; I believe it is but one day.

X Q. 265. And that was on March 3, was it not?

A. In fact, I do not know; it was on Thursday.

X Q. 266. Now, returning to the time when you say that Tallman made an offer to you when you were in the mill pulling the tacks out of the cloth, can you fix that date any nearer than you have?

2741 A. I could not until I went home.

X Q. 267. Will you now go home and get your book so that you can fix that time if I will pay your fare?

A. I will, to-night, when the train goes.

X Q. 268. I will pay you your fare and desire you to make diligent search for that book and return not without the date, if possible; will you do so?

A. I will.

X Q. 269. Do you remember on one occasion with having conversation as to how this Tallman well was made in front of Moses Tallman's house with Jed. Lake, Wm. E. Hunt, Irving H. Palmer, and me, in which we asked sundry questions about it, and in which you then told us all you knew about it, or said you did?

A. I remember having a conversation one Sunday; I do not know who all the gentlemen were; I had been attending a funeral of Mr. Moses T. Tallman's grandson; I had Mr. Wm. Short's horse; I put it in the barn and came out the lane in front of the house; I met three gentlemen, or they met me there; we had a short conversation; I do not know but I said I had told them all I knew about the well; our conversation was very brief; I told them I had been out all day and I wanted my dinner; I felt as the girl did; one of them asked me how that was, and I said I felt as though I wanted something in me.

X Q. 270. I will now detail substantially that conversation and ask you if it is not so.

2742 X Q. 271. Has the defendant's counsel put questions and have they been answered as fast as they could be written down while the case has been progressing, except while statements were being made?

A. I cannot say. I cannot say how fast Mr. Tuttle could write. I could not answer the questions.

X Q. 272. Has he not frequently asked that the questions be put slower, as he could not get them down?

A. I think he has, upon both sides.

X Q. 273. When I have been here putting questions have I not occupied the time I had when Mr. Tuttle was present to take them down fully; and as Mr. Tuttle was present to take them down fully, and as Mr. Tuttle is school commissioner, has he not repeatedly and frequently been called out when the examination has stopped?

2743 A. I think he has in putting questions and making statements. He has been so called out; sometimes step to the door and right back again, and sometimes stay a little longer.

X Q. 274. Now, returning to the conversation which you had with Jed. Lake, Wm. E. Hunt, Irving H. Palmer, and myself on that conversation, was all you said true?

A. I cannot say all I said. I cannot recall all of the words; they would ask me questions and I would endeavor to answer them.

X Q. 275. You never had more than one conversation with them, did you?

A. I think I never did.

X Q. 276. In that conversation did you make any answers that were false? Please answer yes or no.

A. I did not intend to.

X Q. 277. You intended to make truthful answers and did make truthful answers, so far as you know, did you not?

A. I intended to; yes, sir. I intended to. I might have done it and might not have done it. I supposed that would answer the question.

X Q. 278. Did you then make truthful answers to those questions. Please answer yes or no.

A. I cannot tell until I know what the questions were.

X Q. 279. Question repeated.

A. I can answer better if the counsel will show me the questions.

X Q. 280. Question repeated.

A. I cannot answer the question different.

X Q. 281. Do you refuse to answer the question?

A. I do not and have not.

X Q. 282. Question is again repeated.

2744 A. I think I did.

X Q. 283. Question 278 again repeated.

A. I did; now, I would like to know what the questions were.

X Q. 284. Did you then state that this section of pipe was from 5 to 7 feet long?

A. No, sir; I might have said from 3 to 4 feet long.

X Q. 285. Do you swear positively that you did not state in the presence of Wm. E. Hunt, Jed. Lake, Irving H. Palmer, and myself that this section of gas pipe was from 5 to 7 feet long originally, and that you had since found out what had become of the balance of it, mentioning the person's name? Please answer yes or no.

A. No, sir; I told them it was somewhere from 3 to 3½ to 4 feet long. Mr. Samuel Sluth had told me they had cut off a portion of it occasionally for packing boxes in the mill; he said they might have used one-half of it or a little more.

X Q. 286. Did you not also on that occasion and in the presence of the parties named state that that well was only sunk deeper once and that was when the sheet-iron cylinder was put in? Please answer yes or no.

A. No, sir; not that nor any other time nor any other persons.

X Q. 287. Do you swear to that positively and without any hesitation or secret evasion in your mind whatever?

A. I do, before my God and Maker.

X Q. 288. Did you not state on that occasion and have you not stated on other occasions that Wm. E. Tallman wanted you to take the stones out of that well and dig it deeper, a short time prior to the camp meeting, when you said you could not do it, and he then got you to sink the cylinder in; and also did you not so state in the affidavit that you made? Please answer directly yes or no.

2745 A. No, sir—to all of it, except he asked me to take it up and dig it deeper; that he asked me to do and I did do.

X Q. 289. Where did he get the pipe, a piece of which has been shown you—that is, the gas pipe?

A. I do not know of my own knowledge.

X Q. 290. Where do you understand he got it?

A. I have heard people tell that he got it at Homer, to Mr. Murray's.

X Q. 291. Now, Mr. Getman, did you not tell me and Mr. Palmer, also John D. F. Woolston, that he got the pipe at Syracuse and it was charged on the freight books and we could find it by going there?

A. No, sir; I said they would find a box of hardware charged on the books at the Preble depot. I think it was. in the month of August, and it might have been June. I will not be positive either way.

X Q. 292. How much have you received, directly or indirectly, from the complainants or through any other person for giving the testimony in this case? Please state the amount without any explanations.

A. I think it is $28. I think I received one dollar or a dollar and a half or such a matter from John W. Suggett, the defendants' counsel.

X Q. 292½. Have you received any presents or gifts, directly or indirectly, or has any one for you, or have your relations, wife's friends, etc., received any gifts?

A. Not a penny.

X Q. 293. Has any promise or offer been made to you or any of your friends or relatives by any person whatever or by any communication, either directly or indirectly, that if you would swear a certain way in this case or give certain testimony in this case that you would receive something? Please answer the question yes or no.

A. No, sir—before my God and Maker again.

X. Q. 294. Will you swear positively and do you swear that some inducement was not held out to you for swearing in this case differently than what you had said to various parties, and did it not take a great deal of work and coaxing to get you up to the point of swearing as you have in this case, and to get you to go back upon
2746 statements which you had made under the flimsy ground that
they were not under oath? Please answer yes or no.

A. No, sir; if a man should come to me and try to influence me I would denounce him as I have Mr. Keach.

Case adjourned until Saturday morning at 9 o'clock a. m., March 12th, 1881, at same place.

9 o'clock a. m., March 12th, 1881.—Case called at 9.15 and same parties present.

X Q. 295. You were paid sixty-two cents by me last night to go and get your book to ascertain when the exact date was that Moses T. Tallman made you the offer, as you have sworn. Have you ascertained that date so as to be able to swear to it positively?

A. I went home and I found I had neglected to charge my time for the week ending January 29th. This morning, when I came back, I stopped at the grist mill of Tallman & Crofoot. Robbins, the miller, was in the office; we looked at the mill books. Mr.

Crofoot had given me credit for three and one-half days' work for the week ending January 29th; one day of it he had entered as one day fixing buckwheat bolt, credited one dollar. The miller then turned to his book that he puts down his grain that comes into his mill each day and dated each day; he sets down each man's name and the number of bushels of the different kinds of grain he fetches. I cannot swear positively to it, but it was that week between the 22d day of January and the 29th day of January, 1881.

X Q. 296. Was it on the 25th day of January, 1881?

A. I have no date myself to show it.

X Q. 297. Have you any doubt it was January 25th, 1881?

A. I have not.

X Q. 298. You swore the other day that you had a conversation with Moses T. Tallman, Calvin E. Keach, Susan Squires, and Tallman's daughter, you thought, and Jerusha Tallman one Sunday evening subsequent to this fixing the bolt shaft in the mill.
2747 Will you now swear positively that you did not say on that occasion that you had received $20 from the complainant?

A. I will. I may have said that I had received about $20 in all, and had not been sworn yet.

X Q. 299. You remember distinctly, do you not, of Calvin E. Keach's riding down with you one night, and that shortly after or the next day after of Mr. Moses Tallman making this offer; was it the night before that Keach rode down with you?

A. I remember of Keach riding down with me and Mr. Crofoot with Mr. Crofoot's horse and cutter; it was the following day that Mr. Tallman stated to me what Mr. Keach had said. I do not charge Mr. Moses T. Tallman of making me the offer.

X Q. 300. Then it was January 24, 1881, that you, Keach, and Crofoot rode down together, was it not?

A. It was about that time. I have no dates of my own figures to tell the exact day.

X Q. 301. You have sworn that subsequently to that and on one Sunday you, Moses T. Tallman, Jerusha Tallman, his wife, Calvin E. Keach, Susan Squires, and the daughter of Moses T. Tallman had a conversation; on which Sunday afterwards, as near as you can recollect, was it?

A. It was, I think, in the month of December previous; as to dates, I have not any. I was laid up with the rheumatism and did nothing, could do nothing.

X Q. 302. Mr. Getman, in making your answers you do not confine yourself to my question; will you please try to do so hereafter?

A. I will, as near as possible.

X Q. 303. You only had one conversation on a Sunday evening when Mr. Keech was present at Mr. Tallman's house, did you?

A. No, sir.

X Q. 304. What do you mean, sir, then, when you have sworn to two directly opposite things in relation to that conversation?

2748 & 2749 X Q. 305. Question withdrawn.

X Q. 306. You have heard the objection to the question and have had the benefit of it. Do you swear that you have not made two diametrically opposite statements as to the time when this conversation took place? Please answer yes or no.

A. No, sir; on that Sunday.

X Q. 307. Do you swear to that positively?

A. I do.

X Q. 308. Do you wish to impeach the record as to what you have sworn to upon that subject? Please answer yes or no.

A. No, sir.

X Q. 309. At that conversation on that Sunday did you state this, "That the pipe was driven in the bottom of the well; whether it was driven one foot or four, I could not say?"

A. I stated I could not say whether it was driven six inches or four foot.

X Q. 310. Did you not say in that conversation that that pipe was driven?

A. No, sir.

X Q. 311. Do you swear to that positively?

A. I do; I could not talk with two tongues.

X Q. 312. Did you not state to Judge R. H. Duell that that pipe was driven?

A. I do not know that I ever did; I do not recall it.

X Q. 313. Will you swear that you did not?

A. I will not. I do not call to my memory that Mr. Duell and I ever had any conversation.

X Q. 314. Will you swear that you did not state to Irving H. Palmer and myself that that pipe was driven? Please answer yes or no.

A. I will not swear; I cannot say that I did and I cannot say that I did not?

2750 X Q. 315. Have you not said, in words or in substance, during the last three years, at various places in Preble, and especially in the Preble Hotel and in Carr's store, in the presence of Edwin Wilbur, Geo. Way, and De Witt C. Callen, or them or either of them, or Abram Van Denburg or Moses T. Tallman, Calvin Haynes or Calvin Shepard or David O. Crofoot, or them or either of them, that you could tell enough to send the Green patent to hell in an hour, and also described how the pipe was driven and who drove it, and various other things? Please answer yes or no.

A. No, sir; if the pipe was driven at all I could not tell who drove it.

X Q. 316. Do you swear to the last answer positively and unequivocally and without any hesitation, mental reservation, or secret evasion in your mind whatever?

A. I do.

X Q. 317. And that answer is as true as anything you have sworn to, is it?

A. Yes, sir; I do not know what these men may swear against me, but God Almighty knows that I never used those words, to send the Green patent to hell, and no such thought never entered my head of sending it or anything else to hell.

2751 X Q. 318. The answer to question X Q. 316 is, perhaps, ambiguous. Do you answer it in the affirmative? Please answer directly yes or no.

X Q. 319. Question withdrawn.

X Q. 320. Did you not also state to C. F. White and Richard Egbertson, or them or either of them, or to any other person or persons, that you described to them how the pipe was driven, and said to them that you could tell enough to defeat Green's patent, or that in substance?

A. No, sir; I have no remembrance of having a word with either of them about it.

X Q. 321. And is your last answer as true as anything you have sworn to?

A. Yes, sir.

X Q. 322. Did you not state to Wm. E. Hunt, Irving H. Palmer, Jed. Lake, and myself that that pipe was driven into the ground in the bottom of that well on Sunday, September 12, 1880, at Preble?

A. No, sir; I said it was my impression it was put into the ground enough to steady the pipe at the bottom.

X Q. 323. Last question repeated; do not bring in anything else.

A. No, sir.

X Q. 324. Is that as true as anything you have stated?

A. Yes, sir.

X Q. 325. Have you stated to any person or persons in Preble or elsewhere that this pipe was driven into the bottom of this well and that you did not know how far it was driven; that it might have been from one foot to four? Please answer directly.

A. I may have stated it, but not to my knowledge.

X Q. 326. Is it your impression now that the pipe was driven to steady it?

A. My impression—it was in the ground a little to steady it; yes, sir.

X Q. 327. How far in the ground?

A. Not to exceed six inches; that is my impression.

X Q. 328. How was it put in six inches into the ground?

A. If at all, it would have to be driven, I think.

X Q. 329. What is your impression as to how it was put in?

A. My impression is if it was put in it was driven.

2752 X Q. 330. I show you a part of the pipe which you have sworn was used, which is marked for identification in this case as follows: "United States circuit court, district of Iowa. Wm. D. Andrews *et al. vs.* George Leland. Part of original piece of pipe identified by Thomas J. Getman in his testimony in the above case and marked for the purpose of identification. Dated Cortland, N. Y., March 7, 1881. (S'g'd) Wm. D. Tuttle, notary public—and ask you if it is not a part of the same piece of pipe that, as you say, it is your impression was driven six inches into the bottom of that well?

A. It looks like it; yes, sir.

X Q. 331. What was the object of driving it six inches for the purpose of steadying it—that is, in what way?

X Q. 332. Question withdrawn for the time being.

X Q. 333. Was the above contemptible objection made in your presence and hearing, and did the complainants' counsel come out of another room and state the above objection while pretending to read from the record?

A. He came out of the other room and made the objection; I do not know whether you would call it contemptible or not; I am not posted.

2753 X Q. 334. When you were about to make your answer to the last question, and before you did answer it, did Geo. L. Waters, the complainants' counsel, say to you, "Now, Getman, look out, he wants to make you answer that my objection is contemptible;" is this so?

A. He did.

X Q. 335. You have sworn here, have you not, that it was your impression and is your impression that the pipe was driven six inches to steady it?

A. No, sir; I have not sworn to that.

X Q. 336. Did you not swear that it was your impression that the pipe was driven?

A. I did; a little.

2754 X Q. 337. And did you not state and have you not repeatedly stated that it was your impression that it was driven six inches?

A. No, sir.

X Q. 338. How far, then, is it your impression that it was driven to steady it?

A. I could not say, for I never measured it to see how far it was driven.

X Q. 339. Look at the pipe and give your best judgment and impression as to how far it would have to be driven in the gravelly soil in the bottom of that well to steady it.

A. It might have to be driven further if it was not fast at the top, and if it was fast at the top it would not be necessary to be driven so far; as to the looks of the pipe I could not tell.

X Q. 340. Taking things in the condition in which you say they were, give the best idea you can as to how far the pipe was driven into the bottom of the well.

A. I could not say whether it was 1, 2, 3, 4, 5, or 6 inches.

X Q. 341. Undoubtedly, Mr. Getman, you, being a well-digger, can get at this more nearly than that; take into consideration the soil there, that this pipe was attached to the lead pipe by rags, although perhaps you cannot give the exact distance it was driven after this lapse of time, still you must have some idea and your reason must guide you somewhat; please give the distance, as near as you can, that it was driven.

A. Well, I should think (it is all guess-work) not over 3, 4, or 5 inches.

X Q. 342. You have stated, as you swear, that it was your impression that it was driven six inches; will you swear now that it was not driven six inches? Please answer directly.

A. No, sir; I would not.

2755 X Q. 343. How was it driven, do you remember? Give your best recollection.

A. I do not know.

X Q. 344. It is now about dinner-time and we are about to adjourn; will you please not talk with or allow Mr. Parsons or Mr. Waters to talk with you on these subjects upon which you are being examined or anything else pertaining to the Tallman well?

A. I will not allow them.

12.10.—Adjourned until 2 o'clock p. m., at same place.

2.15 o'clock p. m.—Case duly called pursuant to adjournment, with same parties present.

X Q. 345. Have you ever stated to any person at any place that this well was not taken up (that is, the stones were not all taken out) and dug deeper?

A. I never have.

X Q. 346. Did you not so state prior to the 29th day of July, 1880?

A. No, sir.

X Q. 347. When asked by parties to explain what you knew about it have you not stated that the well was originally dug in the year 1859, in the spring or early summer, and that it became dry in July or August; that you then sunk an iron curb; that it again became dry just prior to the camp-meeting; that, owing to the camp-meeting, it could not again be sunk deeper; that Wm. E. Tallman got this pipe, had it prepared, and drove it in the bottom of that well, attached a pump to it, and got water in that way; is this not so?

A. No, sir.

X Q. 348. Do you swear positively that you have not made that statement or that in substance?

A. Yes, sir.

X Q. 349. Did you not state and have you not stated that there was a thread or screw on the iron pipe by which the pump was attached?

A. I have stated that it was my impression there was; upon reflection and looking over the matter I see I was mistaken.

2756 X Q. 350. Did you not repeat that statement that there was a thread or screw on the end of that pipe, to Mr. Lake, M. Palmer, Wm. E. Hunt, and me?

A. I may have done; I do not call it to my mind now.

X Q. 351. What made you change on the subject?

A. Well, I made up my mind I was mistaken, because I fixed it myself once or twice and maybe more.

X Q. 352. Did you not say, and have you not said, that you helped to screw on the pump and also had taken it off to repack it, and you knew there was a thread or screw on the iron pipe?

A. No, sir.

X Q. 353. Have you said anything in substance to the same effect?

A. No, sir.

X Q. 354. About what date do you fix when the windmill was put up?

A. I cannot make no date; shortly after the well was taken up and redug.

X Q. 355. Have you not sworn positively in this case that the windmill was not put up until the camp-meeting was over?

A. I think I did.

X Q. 356. Don't you know?

A. Yes, sir.

X Q. 357. Then state it positively.

A. It is my impression it was.

X Q. 358. You here use the word "impression;" is that synonymous with the word recollection with you?

A. I would like that word explained; I do not understand the meaning of it.

X Q. 359. I read you the definition from Webster's Dictionary: "Conveying the same idea; pertaining to; synonymous."

A. No, sir.

X Q. 360. You have sworn positively that the windmill
2757 was put up after camp-meeting; you now say again that it is
your impression it was. Do you call these two answers in
giving your testimony in effect the same?

A. I do.

X Q. 361. And in giving your other various answers on your cross-examination have you considered and been guided by the same rule as set forth in the last question answered?

A. Yes, sir.

X Q. 362. You stated that the windmill was put up in the latter part of September, after the camp-meeting closed. Will you please look in Mr. Woolston's diary and see when the camp-meeting did close?

A. I have looked. By looking at this I see I was mistaken; it closed Wednesday, September 14th. I have done it through ignorance and confidence in Mr. Woolston and he done it probably through mistake. I asked him to mark the Monday previous to camp-meeting—that I did not want to peruse his writing; he says, There is nothing private but what I wish you to see, but I will turn a leaf down, and he turned the wrong leaf.

X Q. 363. Did I not ask you, and did not you swear positively and unequivocally, producing the diary and looking at it, that that camp-meeting commenced on the 14th day of September, 1859? Please answer yes or no.

A. Yes, sir.

X Q. 364. And that answer was absolutely false, was it not?

A. It was.

X Q. 365. Then when you swore that you took up the well on the

12th day of September positively and reiterated, again and again looking at the diary, it was absolutely false, was it not?

A. That part of it was; yes, sir.

X Q. 366. Did you not also state that you had given the date perfectly correct and that you had made a truthful answer to that as to any of the evidence you had given?

2758 A. Yes, sir, to the first part; the truthful part of the balance had not been spoken at that time, and—no, sir, to that part.

X Q. 367. You can read and write, can't you?

A. I can write a very little, and it bothers me to read other people's writing; I can read my own.

X Q. 368. You have sworn that you were a carpenter and joiner; do you not make estimates, perform calculations, make specifications, and do various other mental work required in that business?

A. No, sir.

X Q. 369. Now, returning again, after you have admitted that you have sworn to what is false as positively as you could make it, I ask you if it was in the latter part of the month of September, 1859, that that windmill was put up.

2759 A. To the best of my knowledge it was; as to my swearing false intentionally I did not, but was mistaken in dates.

X Q. 370. Have you not sworn on the record here that you swore false?

A. That such an answer was false.

X Q. 371. (Question repeated.) Answer yes or no.

A. I decline to answer again.

X Q. 372. Do you refuse to answer the question; yes or no?

A. No, sir.

X Q. 373. Will you please answer it, then?

X Q. 374. (Question withdrawn.)

X Q. 375. You have had the benefit of the previous objection, and in consideration that perhaps it would be harsh for you to swear that you have sworn false, although the record shows that, I now ask you as to where Wm. E. Tallman got the windmill.

2760 A. I think he got it in one of the Eastern States; Vermont, I think; I would not be positive.

X Q. 376. How was the iron gas pipe supported and sustained in the well, other than being driven as you have testified?

A. Cross-braced, I think, with sticks, I think, in the wall.

X Q. 377. How many sticks and where situated?

A. I do not know; there might have been 3 or 4 or one-half a dozen, situated near the bottom near the water; that is my impression; it was fixed so at first; there might have been afterwards a stick fixed up and down.

X Q. 378. Did I ask you what might have been; do you know anything whether there was a stick fastened up or down? Please answer directly.

A. No, sir, to the first part. I do not know, as to the last part.

X Q. 378*a*. As to whether or not there was a stick up and down, you made the answer that you did by a process of reasoning and knew nothing about the facts one way or the other, did you? Please answer directly.

2761 A. No, sir; I did not know but it might have been changed. I knew the sticks were put in there as Mr. Tallman fixed them and passed them down to myself and I placed them in the well.

X Q. 378*b*. Now, if you put in those sticks, please describe how they were made and their length and how situated in the well, giving their size; please describe fully.

A. The size I cannot give; they were split out of pieces of boards 2 feet and a little over long and sharpened a little at the ends, and to describe how they were put in I cannot, only to show it; there was two of them put in—one each side of the pipe—fastened, stuck into the wall; the other two crosswise on the other sides of the pipe; the pipe was on the north side of the well, as near as 2 or 3 inches from the north wall; (and the witness, continuing, says:) and the 4 sticks encircled the pipe and held it in position down near the water; the two sticks that ran north and south were little over 2 feet long; those that run east and west were a little shorter; I think they were one inch thick and 2 or 3 inches wide; and those running east and west were split out of boards nearly the same size; we had to slide them into crevices in the wall—drive them in; they encircled the pipe, as intended to, tightly.

X Q. 379. How long do you say the stick was that run east and west and run on the north side of the pipe? Give, also, the same answer as to the stick on the south side of the pipe.

A. On the north side—I have got to imagine it right in my head—I should say from a foot to 15 inches; on the south side from 15 to 20 inches.

X Q. 380. Were these sticks just even with the surface of the water or were they above it or below it; and, if so, how much?

A. I should think they were a little above the surface of the water; in the crossing the 4 sticks touched each other or two sticks touched two.

X Q. 381. About how much above the water was the bottom of the two bottom sticks?

A. I could not say; they might have been one inch and they might have been one foot.

2762 X Q. 382. How much of the top of the iron pipe projected above the two top sticks?

A. I could not say.

X Q. 383. Give it as near as you can.

A. It might have been a foot, it might have been less, and it might have been more; I could not say positively.

X Q. 384. Give your best judgment?

A. I should think it was little more than a foot.

X Q. 385. Give your best judgment as to the distance from the top of the upper sticks down to the water.

A. My best judgment would say that they would not be over six inches.

X Q. 386. Who put in those sticks? Give the names of all parties.

A. I put them in; in the first place Mr. Wm. E. Tallman fixed them and passed them down to me.

X Q. 387. After you had got them in around the pipe, as you have testified, what next was done?

A. I cannot tell; I think I went out the well; I do not know what I did do.

X Q. 388. What do you next remember of doing of which you have any recollection whatever?

A. The best of my recollection is that we went home; it was pretty near night.

X Q. 389. What next did you do in regard to the well?

A. I think that about completed the well; about the last work.

X Q. 390. Is that all you remember of doing about it?

A. The winding up and finishing the work; yes, sir.

X Q. 391. When did you put in this pipe?

A. I think the pipe was put in when we were erecting the frame for the windmill—during that time.

X Q. 392. And was that after the camp meeting?

A. Yes, sir.

X Q. 393. Have you stated now on your cross-examination all you know about this well?

A. I do not know that I have.

X Q. 394. Do you know that you have?

A. No.

X Q. 395. Do you know anything about it?

A. Yes, sir.

2763 X Q. 396. Will you please, then, answer the X Q. 393, and do so?

A. Yes, sir; I do not mean that I have not stated all I know about the well; the yes, sir, I intended for an answer to the last question.

5 o'clock.—Case adjourned until 9 o'clock Monday, March 14, 1881, at same place.

2764 9 o'clock a. m., March 18, 1881.—Case duly called pursuant to adjournment, and same parties appear as before.

X Q. 397. Since your last examination have you talked over this matter with Mr. Waters or Mr. Parsons?

A. No, sir.

X Q. 398. Now, returning to the subject of the well; after the pipe had been secured at its upper part by the sticks you have mentioned how was the lead pipe attached to it?

A. Well, I will not be positive how; I think with a spongy piece of leather, a cloth, and string, and, I think, coal-tar, but will not swear positively as to that.

X Q. 399. Just describe how the joint was made by means of the things mentioned in the last answer.

A. I could not, unless one pipe slipped inside of the other.

X Q. 400. What was the object of the spongy piece of leather, the cloth, and the string?

A. I suppose to make it air-tight.

X Q. 401. Don't you know without supposing?

A. Yes, sir; could not draw water unless it was air-tight.

X Q. 402. Why?

A. The water would leak out and the air would suck in.

X Q. 403. Please describe how this would take place.

A. I could not; I am not familiar with any such thing.

X Q. 404. When, as I understand you, Mr. Getman, the lead pipe did not go in or over the iron pipe so that the bottom end of the lead pipe was beneath the water, thus making it necessary, in order that the pump would work, that the spongy leather and cloth and string should be used in order to make a tight joint; is this correct?

A. That is correct, sir; my impression is it just entered the end of the iron pipe; I would not say.

X Q. 405. Is it also your impression and best recollection that the lead pipe had to be slightly contracted or expanded at its lower end to allow it to go in or go over the upper end of the iron gas pipe?

2765 A. I think it would have to be expanded, but do not know about the other way.

X Q. 406. About how far—give your best recollection—did the lead pipe go into or go over the end of the iron gas pipe?

A. Well, sir, I could not say; it might — been one-half of an inch or an inch; very slightly.

X Q. 407. Then, after the lead pipe was put in position with the iron gas pipe the bottom end of the lead pipe was a foot or over above the surface of the water in the well; is this not so?

A. Yes, sir; from one foot to one foot and a half.

X Q. 408. Now, how was the spongy leather used to make this joint air-tight, and what was the shape and form in which they were used?

A. I think it was a little longer than it was wide, and it was wrapped around the pipe lengthwise so as to meet, the two sides coming together to make it tight, and then the cloth wound around, and then the string around that to hold it in its place.

X Q. 409. Was there any substance placed on the inside of the leather and next to the pipes?

A. Not to my knowledge, unless it was this gas or coal tar that has been spoken of.

X 410. You have now answered several questions showing the manner and form in which this joint was made. Have you any distinct recollection upon the subject or did you make your answers by aid of your reasoning powers?

A. I have no distinct recollection—no more than, if my recollection serves me right, that was the way it was done.

X Q. 411. You have not answered the question. You have, no doubt, seen joints made in this way, which, to your mind, was a proper way of making them, and, as a joint had to be made between the iron pipe and the lead pipe, by a sort of deduction or inductive reasoning you thought that this must have been the way that this joint was made; is this not so?

A. No, sir; I do not know as I ever saw one made before or since, but I have mended pipes in that way that have sprung aleak.

2766 X Q. 412. Then I understand from your last answer that you have now a distinct recollection that this joint was made in the way you have described; am I correct in my understanding of it?

A. I do not know the meaning of the word distinct; I wish to have it given to me.

(Defendant's counsel does so, and asks that the definition in Webster's dictionary be read to witness.)

(Notary reads definition.)

—. No, sir; I have not a clear, distinct recollection.

X Q. 413. Then the answers that you have made were made by reasoning, by analogy, and from your experience gained from mending leaks in pipes; is this not so?

A. No, sir.

X Q. 414. Will you please, then, explain how you did answer as you did?

A. I cannot explain any more than I have.

X Q. 415. You have stated that the iron gas pipe was encircled by four sticks placed in the well; as I understand you, the object of those four sticks was to prevent the pipe from having a lateral motion at the top; am I correct?

A. Yes, sir; to keep it from what I term from swaying.

X Q. 416. After the lead pipe was attached to the iron pipe, as you have testified, will you please now describe whether the lead pipe ascended perpendicularly up the well or whether it curved and then ascended up about the centre of the well, or what was its position in the well, if neither of the above are correct?

A. Nearly perpendicular on the north side of the well.

X Q. 417. How was the pump attached to the top of the lead pipe?

A. I could not say positively; I think it was soldered on.

X Q. 418. How much above the surface of the earth surrounding the mouth of the well did the pump stand?

A. To the best of my recollection, I should say in the neighborhood of a foot and a half.

2767 X Q. 419. There was a platform made of boards, laid on stringers over the well, and on top of this platform, about a foot and a half above it, was situated the pump, the lead pipe coming up through the platform, and over the platform was the windmill which operated the pump; is this not all so?

A. I have no remembrance whether there was a regular platform or not of boards and stringers over the well; there was a sort of a box made of plank setting over the north side of the well, which the pipe came up through, and the pump on top of that; the pump was operated by the windmill.

X Q. 420. What kind of pump was it that was attached to the lead pipe and which was operated by the windmill?

A. It was sort of a cylinder-shaped pump, about 2 or 2½ inches in diameter, and I should think about 10 inches long.

X Q. 421. That is, do you mean that the barrel of the pump in which the piston worked was ten inches long?

A. Yes, sir; about 10 inches, I said.

X Q. 422. Was the pump an ordinary cast-iron pitcher-spout pump, such as were used on cisterns and wells in those days?

A. No, sir; not the one that was attached to the windmill.

X Q. 423. I have been asking you this morning all my questions in relation to the well after it was deepened by taking out all of the stones and digging it deeper, in September, as you have testified; have you not so understood it?

A. Yes, sir.

X Q. 424. You have stated that the windmill pump cylinder was 10 inches long; will you now describe how it was constructed otherwise—that is, the pump, giving its form and shape?

A. It was round; it was all tight at the top, except where the piston rod came up through; that was as tight as you could have it and have it work well; occasionally the water would ooze out at the top; I think the discharge pipe was near the bottom of the cylinder of the pump.

2768 X Q. 425. The pump was made in substantially the following manner, was it not? There was an iron cylinder about three inches in diameter and about ten inches long; on top there was a cap through which in the centre was a hole for the piston rod to work through; at the bottom of the cylinder there was another end piece, to which the lead pipe was soldered, having a clack valve; the movable valve attached to the piston rod was entirely solid, the same as the piston to a steam engine; near the lower end of the cylinder was an outlet, through which the water escaped.

A. As to size, I think the diameter was from two to two and a half inches. To the rest of it I say, Yes, sir, except as to the piston. I never saw it, and I cannot say how it was constructed.

X Q. 426. The pump operated as follows, did it not? The up strokes of the piston brought up the water; then, after the water had entered the cylinder, the valve over the lead inlet or supply pipe closed down, and the down stroke of the piston forced the water out through the outlet pipe near the bottom of the cylinder. Is this not so?

A. I think it is. As I said, I never saw it taken apart and could not tell how it did work.

X Q. 427. Is that as you remember that it worked?

A. Not as I remember, but as I think it worked.

X Q. 428. After this outlet pipe left the bottom of the cylinder, as you have testified, where did it go to?

A. I could not say whether it lay in a horizontal position with the pump and reservoir, or whether it descended to the ground and then to the reservoir.

X Q. 429. Which way do you think it was?

A. I think it descended to the ground.

X Q. 430. Then, as I understand you, the discharge pipe, after leaving the bottom of the cylinder, passed down to the surface of the ground, then along the latter over into the reservoir (which was nicely constructed in a circular form with water, lime, and stone), where it discharged in about the center of the reservoir. Am I correct?

2769 A. Not wholy; no, sir. It discharged into the southeast corner of the reservoir, which was square, or nearly so, then leading from the cylinder to the reservoir. I think you are correct.

X Q. 431. You saw this windmill pump water a great many times, and saw water come out of the end of the discharge pipe; was that discharge intermittent or continuous?

A. I never saw it a great deal; no, sir. Usually Mr. Tallman used to go and see to it himself. Sometimes, if he had anything else to do, he would send a boy, a cheaper hand than I was. I think it would fill the pipe when it was working. It would run a steady stream when the windmill was running.

X Q. 432. What was about the size of the discharge pipe?

A. I should think about three-quarters of an inch, but am not positive. I think it was lead, but am not positive.

X Q. 433. Do you know anything about the construction of that reservoir, as to the time it was constructed?

A. I think it was right along after the camp-meeting in 1859, as soon as it could be done. It was done at the same time the gas pipe was put in and the windmill erected.

X Q. 434. You swear positively and unequivocally that the pump which was operated by the windmill was not within the dug well, but was over and above it a foot and a half or so. Is this so?

A. Yes, sir.

X Q. 435. In the construction of this reservoir did not Wm. E. Tallman manifest a great deal of care, and laid a pipe underground on the south side of it to take water into an adjacent field about two rods from it?

A. Yes, sir; from the southwest corner.

X Q. 436. You have stated and sworn that four pieces of boards were used to keep the iron gas pipe in position at top in the well. Did those pieces of boards prevent that pipe from settling down lower into the ground?

A. I do not think they would.

X Q. 437. Then, so far as those boards were concerned, they did not hug the pipe sufficiently tight to prevent its settling, did they?

2770 A. No, sir; not if the ground was soft enough to let it settle.

X Q. 438. The erection of this windmill and the building of this reservoir and this new and novel way of getting water attracted considerable attention in and about Preble and that vicinity at that time, did it not?

A. It did; yes, sir.

X Q. 439. And was there any attempt on the part of Wm. E. Tallman to keep it a secret or enjoin any secrecy upon any one else?

A. None that I know of.

X Q. 440. Was this method of getting water by the windmill and the other apparatus used there as public and as common a thing as it could possibly be?

A. It was public, but, being common, it was so common that everybody knew it.

X Q. 441. And don't you remember, Mr. Getman, that Wm. E. Tallman, while he owned and was in possession of the farm, had such a pride in and took such an interest in this method of getting water that he took special pains to call attention to it?

A. He did.

X Q. 442. Mr. Getman, Moses T. Tallman, Abram Van Den Burgh, Geo. Way, Dewitt C. Callen, and Charles F. White and John S. Cornue have all sworn in this case that the pump operated by the windmill was within the dug portion of the well. Are they all mistaken?

A. I think they are.

X Q. 443. Is that as strong as you will put it?

A. Yes, sir.

Case adjourned until 2 o'clock p. m., at same place.

MARCH 18, 1881—2 o'clock p. m.

Case duly called, pursuant to adjournment, and same parties appear as before.

X Q. 444. What operated the pump—that is, what particular thing connected the pump with the windmill?

A. I think it was an iron pitman. I am not positive whether it was iron or wood, but think it was iron.

2771 X Q. 445. How long was it?

A. I could not say.

X Q. 446. About how long?

A. It might be 10 or 12 or it might have been 15 feet. I could not say, and it might have been shorter.

X Q. 447. How long was that windmill used, to your knowledge, there?

A. I do not know. It stood there when I came back from the war, in 1865, but whether it was used or not I could not say.

X Q. 448. It was used from the time it was put up, in September, 1859, until the 17th day of August, 1862, was it not?

A. I think not. There was one circumstance that I call to mind. Mr. Ezekiah Klock went after his cows, and why I remember that circumstance, I was plowing for him on the north side of the road running east and west of the house. I left my watch at home in the morning, and my little boy came and sat on the fence. I asked him if he could go home and get my watch. He said he could and started off. Mr. Klock came along and said he had to go and get the cows and drive them to water, and he happened to look in the road and saw my little boy coming and said, There comes your little shaver. I said, Yes, sir; I sent him home after my watch; and he said, I will go along and have some fun with him by making him think I am going to take it away from him. That about ended up, I think, our conversation. This was in the afternoon.

X Q. 489. Did I ask you to give any reason, or did you volunteer the long answer you gave to the last question after having once answered it?

A. I volunteered to make the statement, connecting it with the answer.

X Q. 490. Do you say positively that that windmill was not in successful operation after the year 1860?

A. I do not; no, sir.

2772 X Q. 491. About how many head of cattle obtained water there?

A. I could not say; sometimes more and sometimes less; perhaps from 20 to 60.

X Q. 492. Did you ever state that the well was from 16 to 18 feet deep?

A. I may have done so; I am not positive either way, whether I have or have not.

X Q. 493. You have never been subpœnaed by having any subpœna served upon you by the complainants in this case, have you?

A. No, sir.

X Q. 494. You have seen a copper strainer and photograph in this case, have you not?

A. Yes, sir.

X Q. 495. I now show you the original copper strainer, marked in this case as follows: Wm. D. Andrews *et al. vs.* George Hovey. In the circuit court of the United States, district of Iowa. Complainants' Exhibit A. Original copper strainer presented to the witness, James B. Share, and to which his testimony relates. [L. S.] (S'g'd) H. J. Messenger, notary public, and ask you if it would be possible that that strainer could have been on the end of that iron pipe when you say that it is your impression that the iron pipe was driven.

A. I do not think it could.

X Q. 496. I now ask you to examine the upper end of the copper strainer and also the inner side of the bottom of the same, and ask you whether if the iron pipe had been driven, as you say it is your impression that it was, it would have been possible that the copper strainer could have been used at the bottom.

2773 A. I do not think it could.

X Q. 497. Then, taking your knowledge of this well, also your knowledge of well digging, I ask you for your opinion as to whether the theory that has been attempted to be dragged into this case, that that copper strainer was used on the end of that pipe in that well, is sound or false.

A. Well, I can say what I have said before, that, in my opinion, it was not there, but it might have been; my theory would be that it would be a bad one.

X Q. 498. Then I understand from your last answer that, in your judgment and opinion as a practical man, leaving aside the question as to what the actual facts are, that the theory that that copper strainer was placed on the end of that pipe is not consistent with good sense or with practical mechanics in any form ; is this not so?

A. I think it is; I think I have said it was my opinion it was not there.

X Q. 499. I now show the section of sheet-iron tubing shown to you in your direct examination in this case, and ask you whether or not it is not similar and of the exact size of the inside lining of a coal stove.

A. I do not know as I have ever seen the inside of a coal stove but once, and I never examined that to see whether it had an inside lining or not.

X Q. 500. Will you swear and do you so swear that this cylinder is not the inside lining of a coal stove?

A. No, sir ; I will not.

X Q. 501. Now, Mr. Getman, it is a fact, is it not, that you have learned from observation and experience that sheet iron of the quality of this cylinder appears to be of that, when immersed in water or in a damp place, — rusts away very rapidly?

A. It does, but not so rapidly as if it was in the earth and no water or dampness connected with it.

X Q. 502. You have undoubtedly acquired knowledge of where this cylinder was pretended to be found and in that position it was in the earth, and at times covered and at times uncovered with water; now, I ask whether, in your opinion, it would not in that position oxidize rapidly and soon perish.

2774 A. I should think not in several years.

X Q. 503. Do you mean the word "several" in its ordinary common sense?

A. I might have put it numbers of years.

X Q. 504. I wish to treat you fairly, Mr. Getman, and desire a frank, fair, honest answer, according to your judgment and opinion ; do you think now that this cylinder could have existed in that ground there over 21 years and be in its present condition?

A. I think it could, and even longer.

X Q. 505. Have you had any experience as to the effect of water upon sheet iron?

A. Nothing more than some stovepipe I have seen in the mill-pond back of my house.

X Q. 506. You stated on your direct examination that this cylinder would operate as a guard to prevent the influx of sand and gravel to the injury of the valves of the pump; you now state that the iron pipe was on the north side of the well; I now ask you if the iron pipe went through the sheet-iron cylinder and drew water from it; there being no bottom in the cylinder, would it not draw more sand and gravel than if it drew directly from the well?

A. I do not know; I have had no experience of the kind. I do not know that the cylinder was ever in the well after the well was taken up.

X Q. 507. Supposing that the cylinder rested on the sand and gravel in the bottom of the well, would it not by its own weight gradually work its lower edge into said sand and gravel?

A. It possibly might a very little.

X Q. 508. Then would not the action of the pump agitate the water more in the cylinder (it being smaller than the well) and stir up the sediment, sand, and gravel more than if the pump
2775 drew water direct from the well?

A. It might on the start, but after a little I do not think it would.

X Q. 509. You have seen driven wells made with an iron pipe, the ordinary way, often, have you not?

A. I have never seen them made; no, sir; I have seen them after they have been made.

X Q. 510. Have you seen them after they have been made in Preble, in the vicinity where this windmill was?

A. I have within half or three-fourths of a mile, I should think.

X Q. 511. What was the size of the perforations used in those driven-well pipes, so far as you have observed?

A. They were in the earth and I could not see them, and never saw them.

X Q. 512. You have seen driven-well pipe-points before driven, often, have you not?

A. I cannot say that I ever saw one.

X Q. 513. From what you have seen of driven wells do they not pump sand and gravel for a time after being made, when the sand is pumped up and larger gravel and stones collect about the perforations, and the well becomes clear?

A. I think it is so, but I never came in contact with any of the wells to use them to any amount.

X Q. 514. I inform you that the patent in this case describes only a tube, open at its lower end and slightly contracted, not pointed or closed, and that wells are made in that manner, and ask you if such is the case, if, in your opinion, it was at all necessary that there should be any cylinder around the lower end of this iron tube.

2776 A. You do not go quite far enough, whether you mean that well or driving it into the ground; in the well I should say it would not, I think, be necessary to put it in; I mean the Tallman well.

X Q. 515. Then in your opinion, derived from practical observation and experience, the theory that this sheet-iron cylinder was around this gas pipe in the Tallman well is not sound, but, on the contrary, is not in accordance with good sense or practical mechanics, and is therefore bad; is this not so?

A. No, sir; it would have a tendency to keep the gravel and sand away from the pipe, but not necessary.

2777 X Q. 516. You drove the sticks around there to fasten the pipe, as you say, and was down in the well; now, if this cylinder had been there would you not have seen it and known that fact?

A. At that time I think I should; yes, sir.

X Q. 517. What is your best judgment as to whether the cylinder was there or not?

A. At that time I should say it was not; I have said it before, and I say it now; at the time of putting in the pipe.

X Q. 518. Would you also say that the cylinder was not there when you attached the lead pipe and wrapped it, as you have testified?

A. Yes, sir; I think it was not.

X Q. 519. Would you also testify that the copper strainer was not there when you put in the sticks and when you attached the lead pipe?

A. Well, I should think it was not in the well.

X Q. 520. Was the pump attached to the lead pipe before the lead pipe was attached to the gas pipe?

A. I could not say.

X Q 521. Was it soldered at the well or taken to a shop in Preble?

A. I could not answer; Mr. Tallman sometimes done such things himself.

X Q. 522. Did Mr. Wm. E. Tallman understand the art of soldering?

A. I do not know whether he understood it or not; he sometimes went through the motions, such as mending tin pails, pans, and so forth.

X Q. 523. Did he have the implements to solder with?

A. I do not know whether he had them of his own or not.

X Q. 524. You have sworn that you went down into this well and made the joint between the iron pipe and the lead pipe after the iron pipe had been placed in position; that being so, on reflection, must not the pump have been soldered to the lead pipe before the lead pipe was placed in position?

A. Not necessarily; no, sir.

2778 X Q 525. Was Wm. E. Tallman skillful enough to solder that pump onto that lead pipe while that lead pipe was in a vertical position?

A. He could do it after his manner of doing work, but do not think he could do a scientific job smooth and nice.

X Q. 526. You are now about to quit this examination until to-morrow morning. Will you please not converse with nor hold any conversation with the complainants, or either of them, or their counsel, directly or indirectly, during the adjournment?

A. Not in regard to this case; no, sir; nor defendants' counsel.

Five o'clock p. m.—Case adjourned until to-morrow, March 19, 1881, at 9 o'clock, at same place.

March 19, 1881, 9 o'clock a. m.—Case duly called pursuant to adjournment, and same parties present as before.

X Q. 527. After the putting of the iron gas pipe in the well was the lead pipe attached to it the same day or a subsequent day?

A. I could not say.

X Q. 528. How many days was you around there on and off before the windmill and the pumping apparatus was all perfected and finished?

A. I could not say the number of days; perhaps a week or a little less.

X Q. 529. During that time did you see this cylinder in the well and inside of it this iron pipe?

A. I cannot say that I did or did not.

X Q. 530. What is your best recollection as to it?

A. I do not remember now of seeing it.

X Q. 531. After the windmill had been set up and the pump put in operation did you pay any attention to it after that?

A. Very seldom got there unless I was near there to work and became thirsty and went there to drink. Sometimes when I was near there to work in 1859 Mr. Tallman would say go and oil the machinery operated by the windmill.

2779 X Q. 532. Who did the carpenter work about the well and in the erection of the windmill?

A. Abram Van Denburgh bossed it; I assisted.

X Q. 533. Is Abram Van Denburgh now living and is he the same person whom, as you understand, has been sworn on the other side in this case?

A. He was living on Thursday; I saw him in this place. He is the same one that was sworn, as I understand.

X Q. 534. How was the box made upon which the pump stood? Please give a description of its size and the size of the materials of which it was made; if it covered all the mouth of the well; and, if not, how the rest of the mouth of the well was covered.

A. There was two pieces of plank about 16 inches long placed upright at each end, about 20 inches apart on inside, and on top was a piece of plank about two feet long, and then there were two pieces of board nailed on the sides to the two upright pieces first described. It formed a four-sided box without a bottom. This box sat on the north side of the well, on the walls of the well. The balance of the well, about two-thirds or thereabouts of the mouth of the well, was covered with common, loose, hemlock boards. These upright plank were from 12 to 16 inches wide.

X Q. 535. Did the bottom of the windmill pump have a flange or anything to fasten it to the box?

A. I think it was either a flange or ears with holes in to fasten it with screws.

X Q. 536. Then, as I understand you, the box had no bottom and rested only on about 3 or 4 inches of the bottom ends of the two-inch planks on a cobble-stone wall. Am I right in this?

A. No, sir. The box rested, nearly the whole of it, on flat stones which the well was finished up with.

X Q. 537. You have stated that the lead pipe ascended perpendicularly through the well. You have also stated that it was within two or three inches of the north side of the wall. Now you have stated that the box had no bottom and that it rested partly on the lower ends of the two upright planks. You have stated that
2780 those planks were from 12 to 16 inches wide. You have stated that the box rested only upon the stones of the wall of the well. I now ask you if there was not four or five inches in

width of the south side of those two upright planks which projected over the walls of the well and had no support. Please answer directly.

A. I stated that the pipe was nearly perpendicular; not perpendicular, but nearly; I think I stated that the pipe was from two to four inches from the wall of the well and the plank standing on the well, the wall being round or nearly so; nearly all of the lower end of the upright plank stood on the wall or nearly so.

X Q. 538. The box upon which the pump stood was not braced or fastened in any other way than by simply resting on the wall, as you have described. Is this not so?

A. Yes, sir; it was braced, the scantling or joist running from the box to the bridge-tree of the windmill; I think it was braced, running from the windmill frame to the box; there were only two board braces, I think.

X Q. 539. How much water was there in the well when the iron pipe was put in?

A. Two feet, or nearly that; not much odds either way, more or less.

X Q. 540. After the well had been deepened, in September, as you have testified, how long did it stand before the windmill was put up and set in operation; also before the iron gas pipe was put in?

A. It was between two and three weeks.

X Q. 541. Where do you understand Wm. E. Tallman got the iron gas pipe?

A. I think he got it at Mr. Geo. Murray's, Sr., in Homer, but I am not positive.

X Q. 542. What makes you think so?

A. Being the nearest hardware store, he always went there for small articles, unless he happened to Syracuse.

X Q. 543. Did they have gas in Homer and Cortland then, so there would be a call for gas pipe there?

A. I do not know as they did; I think they built the gas works that same season, but am not positive.

2781 X Q. 544. Where was the piece of gas pipe used in this well perforated and pointed as it appears? Give your best knowledge and information upon the subject.

A. I think it was done at John Earle's shop, in Preble village, but I am not positive where it was done; it might have been done in his own shop.

X Q. 545. Do you swear that Geo. Way did not punch it or perforate it as it appears and sharpen it?

A. No, sir; I do not swear positively that he did not; he might have done a portion or all of it, as it appears it was done by two or three different-sized punches.

X Q. 546. Do you understand that Wm. E. Tallman got this gas pipe from Syracuse, and that it is charged upon the books of the railroad company?

A. I do not know that there is such a charge, and I do not know that he got it there, and I do not know that I ever heard that he got it there, or that there was such a charge on the railroad books.

X Q. 547. Have you heard or do you understand that there is a charge on the railroad books as to the windmill?

A. Not as to the windmill; I heard J. D. F. Woolston say there was a charge for hardware somewhere from June to August, 1859.

X Q. 548. In redigging this well in September, 1859, as you state, did you use a curb to prevent it caving or not?

A. No, sir; I did not.

X Q. 549. Then you took all the stones out and redug the well two feet deep, making fourteen feet and over in all, without any curb to prevent its caving; then stoned it up again and completed it all in one day; is this so? Please answer directly.

A. We dug it a little over three feet, and dug it all inside of one day without any curb; it was about fourteen feet deep.

X Q. 550. Have you not stated to various parties before the well was uncovered and examined that it was eighteen feet deep?

A. I think I stated it was from sixteen to eighteen feet deep.

2782 X Q. 551. About what time in July or August was it the well became dry?

A. I could not say positively; somewhere the last of July or first of August. It might have been earlier and it might have been later.

X Q. 552. How did you sink the cylinder into the well at that time?

A. I took the cylinder and a cup or basin—and I do not know which—and went into the well and scraped the sand and gravel with the dish, dipped it out into a pail which Mr. Tallman drew out, all the time pressing the tube downward. When I came to a stone I could not loosen with the dish I took my hands and threw it out.

X Q. 553. Was the surface of the earth in the well at that time as low as the bottom side of the wall in the well, and was the well then dry, and how deep was the cylinder sunk in the bottom, and how much water did you get in the cylinder?

A. The earth surface was on a level of the bottom of the wall. I think there was a little water in—not more than enough to wet the soles of a man's boots, and I think we settled the cylinder about 12 inches, giving about 12 inches of water.

X Q. 554. Did you put a board across the top of the cylinder and rest your knees upon it and force it down in that way, removing the earth with a dipper or basin upon the inside?

A. I do not know whether I put a board upon it or not. I used to press it down, and took out the gravel and sand upon the inside.

X Q. 555. Which month—July or August—do you say that you did this?

A. I could not say which month it was.

X Q. 556. Did the well then continue to furnish water for the purposes required after the sinking of this tube until the well again became dry in September?

A. I think it did until the very last end, just before taking up.

X Q. 557. You could not write or read to amount to anything until you went into the army, could you?

2783 A. I could not write much—no, sir. I could write my own name, and that was about all. It was very difficult for me to read writing; I could read print tolerably fair.

11.30.—Case adjourned, on request of defendants' counsel, until 1.30 p. m.

1.30.—Case duly called, and same parties appear as before, and case held open until 1.45.

X Q. 558. Until about three years ago your attention had not been called to the Tallman well from 1859 until then, had it?

A. Three or four years ago; no, sir.

X Q. 559. When your attention was called to it then was your mind vague as to it and your recollection indistinct?

A. It was at that time; yes, sir.

X Q. 560. Did you not state to Mr. Palmer and me that the well was not redug; that it was near camp-meeting time, and that, for reasons which you assigned, the pipe was driven in the bottom of the well?

A. No, sir; I think I did not.

X Q. 561. Is that as strong as you will put it?

A. I will say I did not state so.

X Q. 562. Did you not state that that statement was also in the affidavit which you gave Parsons?

A. No, sir.

X Q. 563. Have you seen the complainant, Wm. D. Andrews, here at this examination?

A. Yes, sir; I saw him here in the office yesterday, and I saw him at his room a few minutes to-day.

2784 X Q. 564. Has your talk with the complainants' counsel and the complainants and others brought back to your mind the subjects upon which you have testified, whereas three or four years ago they were vague and indistinct, as you have sworn?

A. Somewhat; yes, sir.

X Q. 565. Have you not stated to me that such was the fact?

A. Yes, sir.

X Q. 566. And that answer is true, is it not?

A. Yes, sir.

X Q. 567. Did not the complainant, Noah J. Parsons, come often to your place last summer and fall, and did he not at one time come there between 12 o'clock at night and daylight and get you up?

A. I think I saw him in Preble twice or three times and once in Homer. He never came after me after 12 o'clock at night; he came after me one evening about 8 o'clock.

X Q. 568. How many conversations have you had with him upon this subject; is it a great many?

A. Not many; only what I have talked with him here.

X Q. 569. How many interviews have you had with Matthias Van Hoesen, who is acting in behalf of the complainants in this case, and have you ever received or had any promise, directly or indirectly, of any money from him?

A. I do not know, but I have had one or two interviews with him, very short. I have never received any money from him nor had any promise of any from him or any one else, except my witness fees.

2785 X Q. 570. How many interviews have you had with Milo Goodrich on this subject, and where did they take place, and who was present?

A. I do not recall but four just now; they took place at Mr. Goodrich's room at the Messenger House. Mr. Eben Daley was present one evening, last September, I think, and Mr. Hurlbut. I do not know whether Mr. Parsons was present at that time or not. I think that Matthias Van Hoesen was there, also; it was in the fore part of the evening; it lasted a half of an hour or an hour—I could not say, I did not watch the time. The next time I cannot give the month, but think it was probably in October, 1880; it was somewhere from 10 to 11 o'clock in the evening; Mr. Goodrich and myself were present; the interview was very short; the other two were in this present month; one was in the forenoon, the other two or three days after, in the evening; the first one was the first day of the month, and the other the same week before Mr. Goodrich went home; the first one Mr. Goodrich and I were alone, and the second one Mr. Parsons was in, I think.

X Q. 571. How many interviews have you had with Mr. Wm. D. Andrews, when, where, and who was present, and how did you come to have the interviews and who came after you, and how long did each interview last? Also I require the same answers with reference to Geo. L. Waters, Eben Daley, and any other person in behalf of the complainants not already mentioned.

A. I do not recall but two that I have had with Mr. Andrews; one was near Preble village. I was at work on a dwelling-house, and I think he and Mr. Parsons drove up, and whether there was any one else in the wagon or not, I could not say; this was last fall some time; I could not give the date; the time spent there would not exceed five minutes. The next one was to-day. Mr. Parsons came in the office here, and asked me to come down to the Messenger House during the adjournment for dinner; perhaps I was in there 10 minutes before my going to my dinner; and as to Mr. Waters, I do not know as I have ever held an interview with him, only what we have talked here in the office, or Eben Daley, or any other man.

2786 X Q. 572. You have knowledge that this well was being exhumed, and also had knowledge that it was being done by the Mr. Parsons, the complainant; have you not been present at the well, looking at it and measuring it and seeing it measured and talking about it, while Parsons was there and other persons whom the complainants have used in this case? If so, state how you came to be there, who were there, the dates of the different times you were there, and the length of time spent there on each occasion.

A. I knew nothing of it until it was all done; I went there by myself one Sunday morning early to see what had been done. That was the first I knew of the well being filled up; I supposed the well was open. The next time was in September, in the fall, I think; I would not be positive; Mr. Parsons, Mr. Matthias Van Hoesen, Mr. Eben Daley, Mr. John Haviland drove up to Mr. Carr's house, where I was at work, about or nearly 5 o'clock in the afternoon; Mr. Parsons asked me to go down with them to said well; we got down there, and we found Mr. Thomas Ballard, Mr. James Share, and Mr. Wm. D. Andrews there at the well; Mr. Parsons asked me to go into the well and see if the dirt had been removed any below the bottom of the stoning of the well; I did so, and also looked to see if I could find a hole where a pipe had been driven or any soft ground; I could not find that the ground at that time was any lower than the stoning or any hole nor any place softer in one place than another; I think that is about all I did in regard to the well.

X Q. 572½. Have you not stated to me that you could not possibly tell why Wm. E. Tallman should go to the trouble and expense of getting the gas pipe prepared by perforating and pointed it, as it appears, simply for the purpose of putting it in an open well and attaching a lead pipe to it, as you have testified?

A. I think I answered a question that Mr. Suggett asked me; what Mr. Tallman's object was of getting the gas pipe and attaching it to the lead pipe in the well, I told him that I did not know; that he did not always tell his business or what he was going to do to men that he employed.

2787 X Q. 573. Can you assign a single reason for this peculiar arrangement of putting in an iron gas pipe, as you have testified, into that well, and attaching a lead pipe to it in the manner you have sworn to?

A. I cannot, unless, as I have stated before, it was put in the ground a little to steady the bottom of the pipe.

X Q. 574. Then I understand from your last answer that the lead pipe was not used in the bottom of the well because it was so soft and pliable that it could not be driven into the bottom of the well for any purpose; is this so?

A. I have not said that lead pipe could not be used there; I think it could be used there by driving a hole in the ground; the lead pipe could not be driven very well.

X Q. 575. You evidently, Mr. Getman, do not understand my question; is it a fact that iron gas pipe, perforated and pointed, as it appears, was used there, as you have testified? Now, was that iron gas pipe used there because lead pipe could not be driven upon, as you understand?

A. The gas pipe was there, but could not say that it was there because lead pipe could not be driven upon; as I said before, I do not know his object in putting it there.

X Q. 576. In C. Q. 573 you were asked to assign a single reason why the gas pipe was used. You answered, "I cannot, unless, as I stated before, it was put in the ground a little to steady the bottom of the pipe." Can you now assign any other or different reason for it? If so, do so.

A. I cannot.

X Q. 577. Until you were interviewed and questioned upon this subject, was not the whole subject so vague and indistinct in your mind that you stated that there was a thread upon the upper end of the gas pipe?

A. I did make that statement, and I think now there was one until the pipe was cut off by Moses T. Tallman and Samuel Sleeth, as they told me they had done.

X Q. 578. Then at the time the pipe was used there in the
2788 well in 1859, and so far as you know, there was a screw thread upon its upper end; I mean the gas pipe; is this not so?

A. I think there was.

X Q. 579. Upon reflection, now, have you any doubt that such was the fact?

A. I have not, although I will not be positive either way.

X Q. 580. Are you confident to such a degree that you cannot possibly be mistaken that the windmill pump was not down in the dug portion of the well? Please answer directly.

A. I am confident that it was on top of the well; on top of the box.

X Q. 581. John D. F. Woolston was station agent there at Preble in 1859 or worked there, and there was another windmill put up under his direction shortly afterwards in Preble, was there not?

A. He was station agent or worked there at some time; I do not know whether it was at that time or not; some time since 1865 there was one erected north of Preble depot, on a line of the Syracuse, Binghampton, and New York railroad; that is the only one I call to my mind now.

X Q. 582. If John D. F. Woolston should swear in this case that that pump was down in the well, knowing him to be a very intelligent and upright man, would it make you doubt your memory as to what you have sworn to in this case?

A. No, sir; it would not.

X Q. 583. Then you would not believe him, would you? Please answer yes or no.

2789 A. Yes, sir; I would; I should think he would be mistaken in regard to that pump being in the well.

X Q. 584. Question repeated and a direct answer insisted upon.

A. Same answer as before.

X Q. 585. Do you refuse to answer the question—yes or no?

A. I have answered once that I would believe him.

X Q. 586. Would you also believe him if he should swear that the well was dry or very nearly dry when he looked into it in 1859 or 1860—saw the pump down the well operated by the windmill and water being pumped into the reservoir?

A. If he should swear to it I should have no reason to dispute him myself.

X Q. 587. Question repeated; please answer yes or no, without equivocation or dodging.

X. Q. 588. You have heard the contemptible objection of Wm. D. Andrews, who made it; you have also heard remarks that he has made in your presence; you have testified in this case that John D. F. Woolston was an honorable, conscientious, upright, and
2790 intelligent man; you have gone so far as to testify positively

from his diary; I now ask that X Q. 586 be re-read to you, and insist upon a direct answer—yes or no?

A. I cannot answer the question any different than I have.

X Q. 589. Do you refuse to answer the question, yes or no?

A. I do.

X Q. 590. Mr. Getman, that there may be no doubt, would you or would you not believe John D. F. Woolston if he should so swear? Please answer directly, and if you refuse to answer directly, say so.

A. I cannot make any different answer to the question than I have; I do refuse to answer directly.

2791 4.30.—Case adjourned until 10 o'clock a. m., March 21, 1881, at same place.

10 a. m., March 21, 1881.—Case duly called and same parties appear as before, and case held open.

March 21, 1881, 2.35.—Case called and same parties appear as before, and redirect examination by Geo. L. Waters.

R. D. Q. 1. In answer to cross-question 571 you stated that you went down into a well after it had been exhumed on one Sunday morning; state whether or not that is the same well at which the windmill was erected and the same one which you deepened in the fall of 1859.

A. I did not go into the well; I said I went to the well; it was the same well at which the windmill was erected, and which I dug and redug.

R. D. Q. 2. The counsel for the defendant has made inquiry as to the number of occasions in which you have talked with complainants' counsel in relation to the well in question; on how many occasions have you been approached by the defendant's counsel, John W. Suggett, and interviewed in relation to this well?

A. I think there were three in Preble; I do not recall any more there; we have talked a few times here in the village; how many I could not say.

R. D. Q. 3. Preble, the place where the interview occurred, is about 10 miles distant from the home of defendants' counsel, Mr. Suggett, is it not?

A. That is what it is called; yes, sir.

R. D. Q. 4. How many interviews have you had on the subject of this well with the defendant's counsel, Mr. Palmer?

A. Mr. Palmer, I think, was with Mr. Suggett in Preble twice; I think I had an introduction to him; I think likely I did, but I have forgotten.

R. D. Q. 5. Have you ever been interviewed by the defendants' solicitor, Jed. Lake, Esq., on the subject of this well; and, if so, how many times?

A. I believe I have once, in Preble.

2792 R. D. Q. 6. You have been interrogated by the defendants' counsel as to the amount of money which you have received from the complainants in this case; have you ever received from the complainants or from any one in their behalf, or have the complainants or any one in their behalf promised to pay you, any sum of money whatever except the regular fees for attendance and for traveling expenses?

A. No, sir.

R. D. Q. 7. Have you received some money from the defendants?

A. No, sir; nothing, only subpœna fee once.

R. D. Q. 8. Were you once subpœnaed by them and came to Cortland to testify in this case, and then not put on the stand?

A. I was subpœnaed, and came here and was not sworn.

R. D. Q. 9. You have testified, in substance, on your cross-examination that persons were attracted to this well by reason of the newness and novelty of its construction; was there anything new or novel in its construction, to your knowledge, except the windmill and its attachments?

A. No, sir.

R. D. Q. 10. Was there any other windmill in that vicinity at that time?

A. Not to my knowledge.

R. D. Q. 11. One of the witnesses in this case has testified that Jeff. Getman assisted in the sinking a well; state whether or not you are sometimes familiarly called by the name of Jeff. Getman.

A. Most everybody calls me that when I am at home.

R. D. Q. 12. And have you or not been thus called by your friends and neighbors since and before the year 1859?

A. Yes, sir, with the exception of my mother and my first wife.

2793 R. D. Q. 13. You have stated on this examination that you have been accustomed to the digging of wells to some considerable extent; will you please to state whether or not you ever dug any well for Wm. E. Tallman subsequent to the time you deepened the well at which the windmill was erected; and, if so, when did this occur?

A. I think I did dig one; I think in the last of November or first of December, 1860; it was cold weather, and quite considerable snow on the ground before I got it completed.

R. D. Q. 14. Where did you dig the well mentioned in your last answer?

A. In the barn-yard on Wm. E. Tallman's farm, at Preble.

R. D. Q. 15. Where is this barn-yard located, with reference to the windmill well?

A. About one-half of a mile, or little more; nearly east.

R. D. Q. 16. And was it or not located on the same farm as the windmill well? I mean, when I use the term "the windmill well," the well at which the windmill was erected, and which you redug in the year 1859.

A. Yes, sir; on the same farm, in 1859 and 1860.

R. D. Q. 17. Under whose directions did you act in the construction of this well in the barn-yard?

2794 A. Wm. E. Tallman employed me to do it.

R. D. Q. 18. What kind of a well was it?

A. It was a job well; an ordinary dug and stoned well.

R. D. Q. 19. For what purposes was it used?

A. Watering stock in the winter season.

R. D. Q. 20. Was there not a creek in the near vicinity of this well?

A. There was, and also a mill-pond.

R. D. Q. 21. What, then, was the necessity of a well at that point to water the stock?

A. To keep the stock from getting onto the ice, slipping and hurting them, and breaking through into the mill pond and drowning, and driving into customers' sleighs and wagons as they would pass the mill sheds to go to the river for water.

R. D. Q. 22. How was water drawn from this well?

A. It was what we used to term a box-pipe pump, geared by a shaft running from the grist-mill to the barn, pumped by water.

R. D. Q. 23. Did Mr. Wm. E. Tallman, at the time you constructed this barn-yard well or at the time you were about to construct it, say anything about making a well at this point by driving a tube into the earth?

A. Not to my knowledge.

2795 R. D. Q. 24. Did or did not Mr. Wm. E. Tallman at any time ever, to your knowledge, claim to have made a well by the driving of a tube into the earth?

A. No, sir.

R. D. Q. 25. Who was occupying the farm at the time you dug the barn-yard well?

A. Ezekiah Klock.

R. D. Q. 26. On your cross-examination you mentioned a mistake which you made upon your direct examination as to the date of the commencement of the camp-meeting in the year 1859; from what memorandum did you obtain the date of the commencement of that camp-meeting?

A. J. D. F. Woolston's diary.

R. D. Q. 27. Have you that diary here?

A. I have.

R. D. Q. 28. Will you turn to that diary and see when that camp-meeting was?

A. According to this diary, it commenced Sept. 7, 1859.

R. D. Q. 29. Please to read the entry in that diary on Sept. 7, 1859.

A. Witness says I can't read the whole of it (and complainants' counsel hands the diary to notary and requests him to copy the entry of Sept. 7. 1859).

Notary copies as follows:

"Helped J. White cover and shingle his barn until supper; sawed wood and churned; went to depot in eve and made reports for M. M. Out; also went down to camp-meeting; came home with E. and others; white frost in the morning cool and cloudy a. m.; warmer p. m; Mary Woolston married; thinking."

2796 R. D. Q. 30. Will you now please to briefly explain how you came to make the mistake on your direct examination as to the commencement of this camp-meeting.

A. I asked Mr. Woolston, knowing that he had a diary, if he would let me take it to get the date; he said he would; I asked him to mark the date of the commencement of the camp-meeting, as I did not want to peruse his writing; he said there was nothing in it but what I or any one else might see; I said, Please mark the date of the commencement of this camp-meeting, so that I will know without looking; he did so and made a mistake, and marked the 14th instead of the 7th, turning down a leaf, making a mistake himself, and I, not being a scholar, did not notice it.

R. D. Q. 31. In answer to X Q. 365 you testified in substance that when you said the camp-meeting was on the 14th day of Sept., 1859, that that answer was false; did you or not intend when you testified as you did on your direct — that the camp-meeting commenced Sept. 14 to make a false statement?

A. No, sir; I did not.

5 o'clock p. m., March 21, 1881.—Case adjourned until 9 o'clock a. m., March 22, 1881, at same place.

9 o'clock a. m., March 22, 1881.—Case duly called and same parties present as before, and case held open until 9.35.

2797 R. D. Q. 32. At the time the windmill was erected, in 1859, how much water was there in the well?

A. I could not say positively, but think somewhere about 2 feet.

R. D. Q. 33. State whether or not after the erection of the windmill you ever knew the well to be dry.

A. I never did.

R. D. Q. 34. State whether or not there was any other means employed to draw water from this well after the erection of this windmill?

A. There was a cast-iron pitcher pump in there worked by hand.

R. D. Q. 35. When was that put there?

A. It was put there in the first commencement of the digging of the well or the first making of the well.

R. D. Q. 36. Was it put there before the windmill was put up?

A. It was.

R. D. Q. 37. How long did it remain there?

A. From that time up until August 17, 1862.

R. D. Q. 38. For what purpose was it used?

A. In the summer of 1859 pumping water for stock up until the time the windmill was put in; from that time up until August 17, 1862, used for pumping water for laboring men for drinking purposes.

R. D. Q. 39. How was the water conducted from the well to the pump?

A. By a lead pipe.

R. D. Q. 40. When you visited this well, in the fall of 1880, as you have certified, state whether or not it had the same general appearance, except as to the absence of the windmill and pump and attachments, as it did at the time of the erection of the windmill, in 1859?

2798 A. It did, with the exception that the top of the stone-work was taken down.

Redirect examination here closed and recross-examination commenced *de bene esse* by John W. Suggett, Esq., counsel for the def'ts.

R. X Q. 1. Since the cross-examination was closed, on Saturday afternoon last, have the complainants and their counsel, in the absence of the defendants and their counsel, read to you parts of the record and talked with you about it and reasoned with you upon it?

A. They have read a portion of the testimony; yes, sir; but have not talked or reasoned with me.

R. X Q. 2. If they did not reason with you in reference to it, or talk with you about it, why did they read it; was it simply for amusement?

A. Mr. Waters said he would like to read it over to me to see if there was anything I wished to change or explain.

R. X Q. 3. And do you swear positively that during the reading it over that neither Mr. Parsons and Mr. Waters or either of them talked with you in reference to the answers you have given?

A. I do; they did not.

R. X Q. 4. Did I not appear here this morning at 9 o'clock to proceed with this examination, when I was requested to leave the room while the testimony was being read to you by Geo. L. Waters, which I did?

A. Yes, sir.

2799 R. X Q. 5. You have stated upon your redirect examination——

2800 R. X Q. 6. Before Geo. L. Waters, Esq., confessed to having altered the record did he in an insulting and angry manner accuse me of altering it. Please answer directly?

A. I do not know as I heard Mr. Waters. I heard Mr. Parsons say Mr. Suggett's clerk did it when he had the record over there, if it was done.

R. X Q. 7. Will you swear that Mr. Waters did not accuse me of altering the record?

A. I will not.

R. X Q. 8. You have stated upon your redirect examination that you were deceived when you swore positively to the date when the camp-meeting commenced by reason of the leaf being turned down in the wrong place; do you mean that you were guided in opening the diary by the way in which the corner of the leaf turned down turned in—that is, did the corner of the leaf turned down turn in at the wrong date?

A. The wrong leaf was turned at the wrong date; it should have been turned to Wednesday, Sept. 7, instead of Sept. 14, 1859, to get the Monday previous.

R. X Q. 9. This diary from which you have been testifying is an
ordinary pocket diary, about six inches by 3 inches; it has 3
2801 days to a page, and Monday the 12th is on the page contain-
ing the turned-down corner, is it not?

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Vol. II.

TRANSCRIPT AS STIPULATED.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1887.

No. 16.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, NELSON W. GREEN AND NOAH J. PARSONS, APPELLANTS,

vs.

GEORGE HOVEY.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF IOWA.

FILED OCTOBER 29, 1883.

A. Yes, sir; the corner turning opposite to the page where it was on the same leaf on the opposite side of the leaf on which was Monday the 12th.

R. X Q. 10. If the other leaf containing the date of Sept. the 7th had been turned down would it not have turned over the date so as to partially hide it, and as the book lies open, as turned down by Mr. Woolston, is not Sept. the 7th presented to view plainly?

A. It would and it is; if the leaf had been turned down as large *as* over Sept. 7 as it was over Sept. 13 it would pretty much hide the day of the week.

R. X Q. 11. I now show you a piece of paper with the arrangement of this diary upon it, with one corner marked as being turned down, and ask you if it is not substantially a correct representation of the make-up of the diary, showing how the corner was turned down, is it not?

A. It is the page of Wednesday, Sept. 7, and the page of Saturday, Sept. 10.

Sketch of two leaves of J. D. F. Woolston's diary showing how corner was turned over, &c., and returned with this witness' deposition, March 22, 1881, (S'g'd) William D. Tutle, notary public.

SEPT., Wednesday, 7, 1859.	SEPT., Saturday 10, 1859. Part turned down.
Thursday, 8.	Sunday, 11.
Friday, 9.	Monday, 12.

2802 Sketch of the two leaves of the diary shown to witness here marked "Sketch of two leaves of J. D. F. Woolston's diary showing how corner was turned over, &c.," and returned with this witness' deposition March 22, 1881, (S'g'd) William D. Tuttle, notary public.

R. X Q. 12. Will you now please detail all the conversation that you had with Jed. Lake, Wm. E. Hunt, Irving H. Palmer, and myself, or either of us, at the time we met you in Preble on Sunday, commencing and proceeding in the regular order in which it occurred? State the conversation with each and mention the names and do not omit anything.

A. I would if I could. I did not charge my mind with it, therefore it is impossible for me to do it.

R. X Q. 13. Do it as near as you can remember?

A. I cannot remember the conversation any more than I have stated about my going home and getting my dinner and about the girl.

R. X Q. 14. Is that all the conversation you can remember?

A. Yes, sir; questions were asked me and I answered them. What they were I cannot remember.

R. X Q. 15. Were the answers which you made on that occasion true?

A. That was my intention—to give truthful answers.

R. X Q. 16. Give all the conversation that occurred between you and Mr. Palmer and myself, or either of us, when we interviewed you the first time and showed you the iron pipe, or the substance of it, as you remember it?

A. I cannot, only in regard to the pipe. They asked me to give a description of it. I done so by saying it was a piece of gas pipe of an inch and a half or 2 inches diameter, battered up at one end, with holes punched or drilled in it and dented by being punched. They asked me if I should know the pipe if I should see it, and I told them that I thought I should. One of them, I do not know
which one, said, "Shall we show him the pipe?" The other
2803 one says, "Yes." I don't know whether they had it on the
seat of the wagon between them or under the seat. They pulled it out, and I said it was the same piece of pipe or one similar to it, and may have said I should have known it anywhere.

R. X Q. 17. What time of the year and what year were Mr. Palmer and myself there when we showed you the pipe the first time, and are you confident that we had a wagon; and, if so, how confident are you?

A. I would not say whether it was in the year 1878 or 1879; it was late in the fall or fore part of the winter, and I am confident they had a wagon, for I rested my hand on the wheel on the off-side of the wagon.

R. X Q. 18. Have you not just stated that you are as positive and confident that we had a wagon on that occasion as that you are now living? Is this not so, and is it not true?

A. Yes, sir.

R. X Q. 19. After seeing you on that occasion did I see you again until I subpœnaed you in February, 1880?

A. I do not know as you did. I do not know whether you subpœnaed me in February or January, 1880?

R. X Q. 20. Did I serve a regular written subpœna upon you at that time?

A. It was a written subpœna. I do not know whether it was regular or not. I am not posted in that business.

R. X Q. 21. Did you tell me when I served the subpœna upon you that you would not come?

A. I think I did not.

R. X Q. 22. Will you swear that you did not?

A. I will, sir; I will say that my wife said I would not go if I were you.

R. X Q. 23. Did you then state to me that I had not paid you enough for coming, and that you did not know whether you would come or not? Please answer directly.

2804 A. I think I asked Mr. Suggett the question if that was enough, as I did not know whether it was or not. I think he said that it was. I told him I had to draw some wood to Cortland; I would let my hired man drive down with a load and I would come with my horse and cutter and be there on time, and did so. We had no talk at that time relating to the driven well or the Tallman well; he simply subpœnaed me and went out. I cannot say whether you was with horse and cutter or horse and wagon, but, my attention being called to the matter, I think you was afoot.

Case adjourned at 12 m. until 2 o'clock p. m.

2 o'clock p. m.—Case duly called and held open until 2.20 and then case resumed.

R. X Q. 24. Did I ever have any other interview with you in Preble on the subject of this well than the two already mentioned, except when Lake, Palmer, and Hunt were present?

A. None that I now recollect of.

R. X Q. 25. Have I had any other interview with you on this subject, except as we have casually talked of it, and of the coldness of the room, and of our both getting cold in it during the progress of this examination?

A. Not to my remembrance at this present time.

R. X Q. 26. At the time Mr. Palmer and I had an interview with you—at the first time and after you had told me about the well—did I then say to you I should want you for a witness, or that in substance, and should subpœna you when the time came, which I afterwards did?

A. I cannot say whether you did or did not.

R. X Q. 27. After the first conversation with you, when Mr. Palmer was present, and up to the time I subpœnaed you, had I seen or conversed with you in any way?

A. Not to my recollection; still I am not positive.

R. X Q. 28. How much money have you received per day from the complainants for attending here?

A. They have paid me $2.00; no traveling expenses.

2805 R. X Q. 29. You attended six days or over for the complainants in Cortland last September, did you not, and were not sworn then?

A. I did.

R. X Q. 30. Did you state in a store in Preble, when you borrowed money to come to Cortland with, that you were going to make $25.00 out of complainants, and you would be able to pay it back when you got it?

A. No, sir. I at one time borrowed $2.00 of A. C. Carr, druggist and store-keeper, meeting him in the street between the post office and hotel, telling him I was coming to Cortland, and would pay him when I got back. I do not recollect whether it was at the time of coming here on the well business or not.

R. X. Q. 31. How long have you been a carpenter and joiner?

A. I went to work at it in April of the spring of 1867.

R. X Q. 32. Do you consider yourself to be a good carpenter and joiner and also well posted in machinery and in the practical arts?

A. No, sir; I am not master of it; and no, sir, to last part of question.

R. X Q. 33. You have spoken about a box or cistern pump. How is such a pump made?

A. By taking four strips of boards of equal width and nailing the edges together, using a long stem and making a plunger on the bottom for drawing the water. I never see any valve in the bottom of the box. The plunger worked up and down in the box connected with a long lever to give it a long stroke.

R. X Q. 34. Have you been addicted to intemperance somewhat during your life?

A. I have drank some; yes, sir.

R. X Q. 35. Have you been in the habit, more or less, of becoming intoxicated during your life?

2806 A. Few times; not very often.

R. X Q. 36. Before you entered the army were you not in the habit of getting drunk very often, and in such times was very noisy and troublesome?

A. No, sir; not to exceed five times in my whole life up till the time I enlisted; I talked loud, but as to being troublesome it always made me good-natured.

R. X Q. 37. Did you learn last fall in your neighborhood or hear such a report that the wife of Thomas Ballard ordered the complainant, Noah J. Parsons, out of her house for attempting to suborn her husband, or any such rumor or report?

A. No, sir; — that since this examination commenced my wife commenced to tell me something about it; I told her to keep still; I did not want to hear anything about it.

R X Q. 38. Whenever you have used in your testimony here the words iron pipe or iron gas pipe do you mean the iron gas pipe, a part of which has been marked for identification in this case, as marked at question C. Q. 132, and also marked as follows in other cases by labels attached to it, viz., Complainants' Exhibit "A No. 1, H. J. M.," and also marked—

2807 "United States circuit court," district of Minnesota. In equity. William D. Andrews, George H. Andrews, Nelson W. Green, and Martin S. James, complainants, *vs.* Royal D. Cone, defendant. Produced before me and marked for identification at Cortland, N. Y., October 6, 1880. (Signed) M. Stanley Bierce, notary public.

United States circuit court, northern district of New York. In equity. Wm. D. Andrews, Geo. H. Andrews, and Nelson W. Green against Thomas Richardson. Pipe produced by defendant to be marked by examiner for identification at Preble, New York, Nov. 19, 1880. (Signed) C. W. Smith, U. S. court examiner?

A. Yes, sir; whenever I have used the words iron pipe that is the one I mean.

R X Q. 39. You have spoken of another apparatus for drawing water and its appendages, used at the well, besides the wind-

2808 mill pump. Was that the same apparatus that was used there from the time the well was dug there in May, 1859, until the time it was redug in September, 1859, as you have testified?

A. Yes, sir.

R. X Q. 40. The pump mentioned in your last answer was attached to a lead pipe and sat on the same box as the windmill pump on the east side of it and near to it, did it not?

A. It did; near enough so both could be worked easily; three or four inches between the pumps on the box.

R. X Q. 41. Then, so far as you know, Mr. Getman, there was never a pump inside of the dug well, was there?

A. Not to my knowledge.

R. X Q. 42. Several of the witnesses in this case have sworn that that well was dry; that the iron pipe to which the windmill pump was attached projected up from a foot to a foot and a half from the bottom of the well; that on top of the pipe so projecting was attached the pump, which was operated by the windmill; now, you state that that the well had about two feet of water in it and that the pipe projected up a foot or a foot and a half above the water; are you so positive that you cannot be possibly mistaken as to your idea of it; and, if you are so, can you account for the way in which they testified it was, except upon the ground that the pump must have been put down into the well and attached directly to the iron pipe and the well filled up with earth and the earth packed about the pipe so that it then appeared to be only about a foot above the bottom of the well; may not this all be so and thus reconcile the apparent direct conflict between your testimony and theirs?

A. I am positive that I am not mistaken. I think they
2809 are mistaken about the whole matter in regard to the well
being dry and any pump being down in the well from Sept., 1859, until the 17th day of August, 1862; after that I knew nothing of it.

R. X Q. 43. Are you so positive and confident that the pumps were not put back into the well and the windmill erected until after the camp-meeting that you cannot possibly be mistaken?

A. I am confident that the windmill pump was not put in until after camp-meeting; I think it probable the hand pump might have been put in, but I am not positive of it; I think the windmill was not erected until after camp-meeting, for the reason the well windlass, hauling out earth and letting in stones, would not work, there not being room for it; and if the windmill had been erected previous to taking up the well, the hole being so large, it would have tumbled into the well.

R. X Q. 44. Then you are sure that the windmill or the frame to it was not erected nor put up previous to nor during the time of the camp-meeting, but not until afterwards; is this not so? Please answer yes or no.

A. Yes, sir; I am sure it was not.

R. X Q. 45. And is your last answer as true as anything and everything you have sworn to in this case?

A. Yes, sir; I calculate it is all true.

2d R. D. Q. 1. State whether or not you are now one of the town officers of the town of Preble; and, if so, what.

A. I am. I am poor-master of the town of Preble, or one of them. This is my third year. I have been re-elected each year for three years.

2d R. D. Q. 2. Have you ever held any other official position in the town of Preble; and, if so, what, when, and how long?

2810–2828 A. I have. I was town collector one year; about six years ago; and have been constable for three years within the past six years; am not constable now.

Second redirect-examination here closed at 4.20.

2d R. X Q. 1. Have you ever been arrested or indicted? Please answer directly.

A. No, sir.

2d R. X Q. 2. Do they ever elect illiterate and ignorant men to office in the town of Preble?

A. They have; that could neither read nor write.

Second recross-examination *de bene esse* here closed at 4.25.

(S'g'd) T. J. GETMAN.

Evidence read over to witness and subscribed and sworn to before me this 22d day of March, 1881.

[L. S.] (S'g'd) WILLIAM D. TUTTLE,
Notary Public.

2829 This examination was, by consent of parties, A. R. West appearing for complainants and Lake & Harmon appearing for respondents, continued on this 22d day of March, 1881, before me at my office in Independence, Iowa, as follows, to wit, until half past eleven o'clock of this day.

Solicitor for complainants now hands to the notary a copy of the order of the court made in this cause at Keokuk on the 19th day of January, 1881, and asks that it be attached to this deposition as a part thereof and marked "C," and it is so attached and marked.

Solicitor for complainants also hands to the notary a press copy of the testimony of John Q. Royce, taken on the 16th day of June, 1880, which said press copy was made and furnished to complainants by Seth Newman, a notary public, before whom said testimony was taken and before whom this examination is now progressing.

The witness, John Q. Royce, is now produced by complainants, and complainants now ask that said witness be sworn and that he proceed at this time to comply with the said order of court made at Keokuk and referred to and marked Exhibit "C." Complainants now ask that in order that the witness may intelligently answer all questions heretofore propounded to him by respondents and not fully answered be now read to the witness from the press copy herein referred to, giving the number and order in which the same appear

in said press copy and his answers taken to the same. The
2830 witness having been by me duly sworn, said questions referred to by solicitor for complainants were by me read to witness as follows and his answers to the same taken, to wit:

X Q. 28. Since you have been here this time have not you been looking up evidence in this case for the complainants?

A. I have.

X Q. 29. Have not you been in the employ of complainants in this case or their solicitors for some days past looking up evidence for them in Independence, Iowa?

A. I have.

X Q. 30. Are not you now in the employ of the complainants or their solicitors, and did not you come from Smith Center, Kansas, to look up evidence here for them?

A. I am in their employ, and came from Smith Center for that purpose.

Notary is requested by complainants' solicitor to call the attention of witness to the time referred to in the questions propounded to the witness and in all answers asked of him to said questions, and that in addition to any answers he may see fit to give in reference to other dates he shall bear in mind and answer fully with reference to the said date, to wit, June 19, 1880, at which time the questions were propounded to him. Notary called the attention of witness to the facts requested by solicitor for complainants, and the witness stated that he answered the questions as he should have answered them at the time they were propounded to him.

X Q. 32. How came you to come here from Smith Center, Kansas, to testify?

A. I will state that I did not come from Kansas for the express purpose of testifying in this case or any other case; that I had been in the employ of the complainants prior to my going to Kansas, and they afterward continued me in their employ at this place to
2831 look up evidence for them in this case, and while I was here I was called upon to testify in this case.

X Q. 33. Was you not employed by the complainants or their solicitors to come here and look up some evidence for them?

A. I was.

X Q. 34. Have not the complainants or their solicitors had you in their employ looking up evidence for them in this case?

A. They have.

X Q. 35. You now state that in June, 1880, you was in the employ of complainants' solicitors in this case, do you not?

A. I do.

X Q. 36. When did that employment commence?

A. It commenced twice. The first time I commenced for them was in the spring of 1879; I don't think I can recollect the exact month; and the next was in June, 1880.

2832 X Q. 37. How long did you work for them in 1879?

A. In the neighborhood of three or four weeks.

X Q. 38. What did you do at that time?

A. I assisted them in getting evidence.

X Q. 39. Did you get that evidence in the shape of affidavits?

A. I think I did; I think all of it was that way; I wish to qualify that and say that I think part of the evidence we took in 1879 was by subpœnaeing witnesses to appear before the notary and taken in the form of depositions.

X Q. 40. State now who you had subpœnaed before the notary.

A. I can't recollect all of them; I think I recollect having Mr. Hovey subpœnaed; there were others; I would have to refresh my memory; when we could not get an affidavit, and thought the party knew something about it, we would take the other method.

X Q. 41. While you was here at that time, and while these parties were being brought before the notary, did not Mr. Rickel and Mr. N. J. Parsons remain here and take charge of that part of the work?

A. I think they did before the notary.

X Q. 42. Was not the work they set you to do that of getting affidavits only?

A. No, sir; I think I can give nearly the conversation had with Mr. Rickel when they employed me. Mr. Rickel asked me if I was afraid to assist him in looking up evidence in the drive-well cases. I told him I was not, and he employed me. We went to work 2833 the next morning, and he set me at work looking up the parties that were afterwards brought before the notary; after they went home I think my business was getting affidavits.

X Q. 43. Did Mr. Rickel give you the names of the parties that he desired you to see, and see what they knew as to the driven-well cases?

A. It seems to me that he gave me some names, although I can't recollect how many; there was but very few of them, and I brought in a great many that I hadn't any names and hadn't thought of when I started out.

X Q. 44. Was it during this employment, in the spring of 1879, that you obtained this affidavit from C. T. Kimball that was introduced and testified to by you when you were being examined previously?

A. My recollection is that it was.

X Q. 45. Was not Mr. Kimball's name given to you by Mr. Rickel as one that he wanted you to see?

A. I think not; my recollection is that neither Mr. Rickel or Parsons knew anything of Kimball, or what his evidence would be, until I sent them the affidavit, or took it to them; I have forgotten which I did.

X Q. 46. Did you know that an application for a temporary injunction had been argued before the time when you was employed by Mr. Rickel to look up this evidence in the spring of 1879?

A. I recollect of their being a temporary injunction, but whether it was before or after I was employed I am unable to state at this time.

X Q. 47. Did not Mr. Rickel or Mr. Parsons inform you that the question of a temporary injunction had been argued once, and that it was to come up again, when they employed you?

A. I have no recollection of any such statement by either 2834 party; I might have known that the injunction was before I was employed, but I don't now remember whether I knew it then or not.

X Q. 48. Was a temporary injunction granted in any of these drive-well cases?

A. I wouldn't state positively.

X Q. 49. For what purpose did Rickel say he wished to use these affidavits and this evidence that you was to look up?

A. I don't know as I can tell.

X Q. 50. Did he not tell you what he wanted it for?

A. I presume he did, but it is not fresh in my memory now what it was—that is, in what branch of the case it would be used.

X Q. 51. When you called on C. T. Kimball state as nearly as you can what you said to him and what he said to you; state the conversation fully.

A. I presume I spoke to fifty persons, perhaps more, on the same subject the same day, and I presume my conversation with Kimball was about the same as with the others, and the general conversation was to pass the time of day with them and get into conversation with them about this driven well, and ask them the real date, if they recollected, that the well was put down there, and if I could get them to make an affidavit I would do so. I will state that I found a great many whose recollection was better when they didn't know what I wanted than it was after they found out.

X Q. 52. Now, without stating what you said to others, state, as nearly as you can, what you said to C. T. Kimball and what he said to you on the day you had him make that affidavit as to this well that the affidavit was about.

2835 A. I would be unable to state all that was said there—all the conversation; I can tell a portion of it. Kimball and I got into conversation about the driven well. I think I asked him the date, the year, if he recollected, that that well was put down on the corner there, and he told me he wasn't certain, but that it was either the summer of '62 or '63. I think he told me he had been in conversation with some parties who remembered it in 1861, but they must certainly be mistaken; that he was positive it was not in 1861 and was equally positive it was after '61, but could not tell whether it was '62 or '63. I asked him then if he was willing to make an affidavit. He said he was. I think we went down then to Eastman's office and he made the affidavit. I mean the well on the northwest corner of the block, where the Presbyterian church now stands.

X Q. 53. Who wrote out the affidavit that Kimball signed?

A. I did, I think.

X Q. 54. Do you not know that you did write it?

A. Yes, sir; I wrote it.

X Q. 55. How many did you write for Kimball before the one he signed was written?

A. That was the only one that was completed. I had one started—that is my recollection—and perhaps had it half or a third finished, and afterwards laid it aside on account of informality; I think on account of its not being entitled, although I am not positive, and then wrote the one he finally signed.

X Q. 56. Did you not write one out and show it to Mr. Kimball that he refused to sign?

A. I did not.

X Q. 57. If you wrote this affidavit and if Mr. Kimball told you that he did not know of a well there on that corner in 1861, why did you not so state in the affidavit, so as to make it certain that his affidavit related to the first well.

2836 A. It was understood when we were doing the business that this was the first well of that kind ever put down there, and was never referred to as any other, to my knowledge, and I think the affidavit states that it was the first well?

X Q. 58. Please to read over carefully the copy of the affidavit which is here shown you and then state whether that makes any statement as to this being the first well of that kind that Mr. Kimball ever saw on that place.

A. I don't know as it does in direct terms, to a stranger, but to one acquainted with the facts it is pretty positive, in my judgment.

X Q. 59. Do you know Mr. Kimball's handwriting?

A. I used to when I clerked for him.

X Q. 60. Would you now know his signature if you should see it?

A. I don't know whether I would or not.

X Q. 61. Look at this signature here shown you and state whether you think that is the genuine signature of C. T. Kimball?

A. I would not want to swear to it; I presume it is, though.

X Q. 62. Will you now state to the notary what it is that that signature is affixed to?

2837 A. I should call it an affidavit.

X Q. 63. On what subject is it an affidavit?

A. The driven wells.

X Q. 64. What is the date of that affidavit?

A. December 30,1878.

X Q. 65. Now, state whether Mr. Kimball did not tell you on the 24th of May, 1879, when he signed the affidavit that you drew, that he had already made an affidavit as to the well put down in 1861, and that he knew of a well put down there some time in 1862, 1863, or 1864.

A. No, sir; he did not.

X Q. 66. When was it that you clerked for Mr. Kimball?

A. In 1872 or 1873. I clerked for him alone and then for him and Hunt together.

X Q. 67. How long did you clerk for him?

A. I clerked for him all one summer and into the fall. I commenced late in the summer; it was through vacation of that year.

X Q. 68. Was not his memory good at that time?

A. I could not state.

2838 X Q. 69. Did not Mr. Kimball, while you knew him and while you worked for him, have a good memory of dates and events as to what had transpired?

A. I don't know as I ever had any occasion to know. I have heard him and Hunt disputing on points. I don't know which was right, though.

X Q. 70. While you was at work for the solicitors for complainants here in Independence, in 1880, did you look up any evidence for them in these driven-well cases?

A. I did.

X Q. 71. State who you conversed with at that time that has been used as a witness by them.

A. I don't know who; all have been used as witnesses.

X Q. 72. State, then, who you recommended them to use as witnesses from what you learned at that time.

A. Mr. Kayes, at Hazleton; Sam. Naylor, W. H. Joslin, I think. I recommended J. M. Chandler, although I don't think I saw him personally. I saw the other parties.

X Q. 73. State how much you paid C. T. Kimball for making the affidavit he made for you in May, 1879.

A. If I paid him anything I paid him one day's attendance as a witness.

X Q. 74. Did you pay him anything?

A. It is my impression that I paid him one day's attendance.

X Q. 75. Are you sure that is all you paid him?

A. Yes, sir.

X Q. 76. What was done with the affidavit that you say you partly wrote for Kimball and then laid it aside and wrote the one he signed?

A. I think it was left lying on Eastman's table then.

X Q. 77. Have you seen it since that time?

A. I have not.

X Q. 78. Do you now know where it is?

A. I do not.

(S'g'd) JOHN Q. ROYCE.

Sworn to and subscribed before me this 22d day of March, 1881, by said John Q. Royce.

[L. S.] S. NEWMAN,
Notary Public.

2839 Solicitor for respondents requests the notary to mark and identify the affidavit shown the witness by him for the purpose of having the affidavit shown to the witness, J. Q. Royce, identified as the one shown to the witness, and for future use, and now presents the same to the notary to have him mark and identify the same and make a copy thereof and attach the same to these depositions.

The notary thereupon marked said affidavit "D," S. Newman, notary public, Independence, Iowa, March 22d, 1881, and a copy of the said affidavit is hereto attached, marked "D."

2840 Exhibit D.

— T. C. Kimball, of Jessup, Iowa, being duly sworn, do depose and say: I kept the hotel then known as the Revere House, but now known as the Merchants' Hotel, at Independence, Iowa. Thomas Sherwood and myself were in company keeping that house. We went into the house in the fall of 1860; it was the same fall that Abraham Lincoln was elected President the first time. We stayed there together until some time in May, 1861, when I went out. Some time before I went out of the hotel a man came there with a driven-well point. He told me he could make a well by driving a gas pipe into the ground and attaching a point to it. He showed me the point he would use on the gas pipe. This point was of iron, and the following drawing represents it as nearly as can be. The point was sharpened and was slightly larger at the top end than the pipe. The pipe above the point for some two feet was perforated with small holes to admit the water to the inside. This man, whose name I cannot now recall, talked to me considerably about this kind of a well—how cheap it was. He and I went over the river, on the west side of the river, at Independence, and went near to the northwest corner of the block on which the Presbyterian church is now built. He got a maul and drove the point into the ground; then he screwed onto that a piece of gas pipe, and drove that down, and so on, putting on several pieces and driving down until he said the pipe was down some twenty-two feet; it left the last piece of pipe some eighteen inches above the ground; then he got an iron pump, known as a pitcher pump, and put onto the top of this pipe. This pump was screwed onto the top of this pipe, making the pipe and pump attachment air-tight; then we pumped out water; it was a little roiley at first, but soon cleared itself and was good water to drink. The whole thing—pump and pipe—stood about thirty inches above the ground; no curbing around it; the pump was used a good deal while it stood there; I pumped water out of it several times myself. I told Tom Sherwood about it; I also 2841–2851 talked with Jed. Lake about it. I do not know the name of the man who drove the pipe; if I had the old register of Sherwood & Kimball, while we kept the hotel I could find the name, I think. I remember it was the spring after the winter that we kept the hotel together, and while I was in the hotel; I further remember that it was the next spring after Jed. Lake was married, for he and his wife boarded with us that winter, and I think this was put in while they boarded with us.

I further remember about this pump and well, this man told me that this was a patent on a well made by driving pipe down into the earth and inserting into that a machine that folded and opened on the principal that an umbrella opened and folded; that the ribs of this machine were steel knives, and when below the pipe could be opened and turned around, and cut out a reservoir as large as a barrel, and this dirt could be pumped out with a sand pump, but this man claimed that in sandy or gravelly soil he could make a well without cutting out the earth; that the gravel and sand were a sufficient reservoir; we tried it where I described and succeeded in making the well; it was a success. I am sure this was early in the spring of 1861, from the circumstances above stated.

(S'g'd) C. T. KIMBALL.

The foregoing affidavit was subscribed in my presence and sworn to before me by C. T. Kimball this 30th day of Dec., 1878.

Witness my hand and seal.

[L. S.] (S'g'd) JED. LAKE,
Notary Public in and for Buchanan County, Iowa.

2852 The witness, being examined, testifies as follows:

Q. 1. Please state your name, age, residence, and occupation.

A. G. W. Lason; I am 41 years old the 9th of next July; I live in Center Lisle, Broome county, N. Y.; my regular profession is a stock drover, but I have been in a country store the past winter.

Q. 2. How long have you resided at Center Lisle?

A. About three months, I think.

Q. 3. State whether or not you formerly resided at or near Addison, Steuben county, N. Y.

A. Yes, sir.

Q. 4. For how many years have you been in the business of a stock drover?

2853 A. Extensively about six or seven years, always more or less.

Q. 5. How is your name spoken?

A. It is spoken different ways; Lawson, Larson, Lacy, and Lason.

Q. 6. Was you the orderly of Col. Nelson W. Green while he was connected with the 76th Regiment of New York Volunteers?

A. Yes, sir; the whole time, I think, I was detailed for that purpose, and was connected with the regiment here in Cortland, N. Y.

Q. 7. After the shooting of McNett did you attend him as his orderly and accompany him to Washington?

A. I did.

Q. 8. Did you have any knowledge of the driven well as constructed by Col. Green here in Cortland, N. Y.; if so, what?

A. The knowledge that I had of it was this: They came down with a lot of tools at Green's house, and commenced to drive or did drive, or done something about a well, between the house and the creek, and then, I think, they took part of the tools to camp, and maybe all of them. I don't think it was a success near the house; some of the same men who were at the Green house were at the camp; I think Col. J. C. Carmichael was one; Herman F. Robinson and Byron Mudge were at the house, and others.

Q. 9. Did you have anything to do with driving the well at the house or have anything to do in connection with it?

2854 A. I got some of the tools; there was something called for, and I went to the barn and brought something out—maybe a maul; I shouldn't wonder if it was.

Q. 10. Do you recall anything as to having been sent to Cortland village for the purpose of having the pipe used in the construction of that well lengthened out?

A. I was sent there for something of that kind; I brought the pipe here and took it back; whether it was to be lengthened or not I don't know.

Q. 11. Who directed the putting down of that well at Col. Green's house?

A. Col. Green.

Q. 12. Do you remember whether or not Col. Green was present while it was being put down?

A. He was there part of the time, off and on.

Q. 13. Do you remember that Col. Green gave any directions about putting that well there down?

A. He did.

Q. 14. Under whose directions did you act in doing what you did in respect to that well?

2855 A. Col. Green's.

Q. 15. Had you heard Col. Green say anything about constructing the driven well? If so, state what he said at that time, as far as you are able.

A. He talked with me at different times in regard to it; his idea was that he could drive a pipe or something of that sort down into the solid ground and by that means make a well, a tight well. He spoke in particular in regard to having the pipe press the ground solidly. This he spoke of at different times during the formation or while they were making this well at Green's house and during the forming the said 76th regiment.

Proceedings are hereby held open or suspended until 1.30 p. m. of this day.

(S'g'd) DORR C. SMITH,
Notary Public.

AT ONE O'CLOCK P. M., *March* 26, 1881.

Q. 16. After the well was made at the house of Green, whatever it was, do you know whether or not Green directed a permanent driven well to be made on the fair ground for the use of the regiment?

A. I think he did; I so understood it.

Q. 17. What do you mean by saying in your previous answer that the driven well made at the house was not a success? Please explain.

A. The reason that it was not a success, I mean, was that it was taken away in a short time; I don't remember the depth they drove the pipe, but I think they got water out of it, but I am not positive; I am pretty sure that they did.

2856 Q. 18. How soon, according to your recollection, was it after the making of that well at the house, whatever it was, did Col. Green direct the putting down the well on the fair ground, being the camp of the regiment?

A. I cannot tell the exact time, but it was not very long.

Q. 19. After the McNett shooting do you remember that the regiment under the command of Gen. Wood moved from Cortland to Albany on its way to the front?

A. Yes, sir; I went with them.

Q. 20. Now, do you remember that at Albany there was a trial of Col. Green on account of the McNett shooting and from the result of which restored the command of the regiment to Col. Green by the then Governor of the State?

A. I do; there was an order to that effect read to the regiment; besides, I was present a part of the time at the trial.

Q. 21. After the regiment reached Washington, at Meridian Hill, near Washington, do you or not know that Col. Green was put and held under arrest by military authority?

2857 A. Yes, sir; I do; he was closely confined in his tent under guard and his rations carried to him; I myself carried them to him part of the time.

Q. 22. During his confinement do you know whether or not he sought an interview with Senator Doolittle, of the State of Wisconsin?

A. Yes, sir; he did.

Q. 23. Did you personally convey that request to Senator Doolittle?

A. I did.

Q. 24. For doing so were you also put under arrest, to the knowledge of Col. Green?

A. That night I was sent to Fort Massachusetts under arrest, I supposed, for assisting Green in various ways; I remained there until I was released without any trial; I was not closely confined.

Q. 25. Do you know that at the time you went for Senator Doolittle to see Col. Green that Doolittle did come to see Green at his tent of confinement?

A. Doolittle came with me to Green's tent and had an interview with Green that night.

Q. 26. Now, while Col. Green was under arrest, what did you observe there at Washington as to the effect that his arrest had upon him? In answering please state what opportunities you had to observe and what you did observe as to how it affected him mentally.

A. It made him sick, and he didn't sleep hardly any nights;
2858 he would walk nights; I roomed with him most of the time;
sometimes he would wake me up in the nights; a good many of the nights he would not sleep more than an hour; that is according to my best belief; he woke me up every night, more or less, when I slept in his room, and I left him a part of the time to get sleep and rest for myself.

Q. 27. When he was finally dismissed from the service what did you observe as to his condition then?

A. I don't think I ever saw him after he was dismissed from the service; I think he had not been dismissed when he came home from Washington; when he came home I was with him, and at that time he was about the same he was in Washington—mighty uneasy.

Q. 28. How long was you with him here in Cortland at that time?

A. I never saw him after he got here; I think probably that I left him in Owego, N. Y.; I came to Cortland within ten days after Green's arrival here, but I did not see Green on the streets; I did not go to Green's house, nor did I see him at all.

Q. 29. While you were with Green at Washington, after his arrest, and while on your way home with him did he talk any private or personal business of his own aside from his military troubles?

A. I don't think he did talk of anything but about his being released and getting command of his regiment as he had it before; he didn't want to come home, but Doolittle advised him to come home.

Q. 30. You returned to the service and was transferred from company F to company B in the 76th regiment, and served your time out, which was three years, and then re-enlisted as a veteran, did you not?

A. Yes; and I have honorable discharges from both enlistments.

2859 Q. 31. Have you ever known of any litigation about the driven well until recently?

A. The first I knew about the litigation over the driven well was a letter directed to me at Addison, Steuben county, N. Y., which followed me about the United States, when it finally reached me in Dakota Territory, a long time ago. I have never been called as a witness in the driven-well case before this. I went from Dakota Territory to Texas in about 1872 or 1873; before that I lived in Maryland; now I reside a part of the time in Texas and part of the time in this State, and own real estate in both States, and am doing business in both States.

Direct examination closed.
Witness signs his evidence.

G. W. LASON.

Defendant's counsel here states that he will proceed with the cross-examination of this witness *de bene esse*, reserving and not waiving any objections heretofore made or which may be hereafter made herein, and asks the complainants' counsel to concede that each question shall be put and answered without writing the words *de bene esse* before each question and answer, but with the same effect as though they were so written; to which complainants' counsel accede.

Cross-examination:

X Q. 32. What year did you reside at Addison, Steuben county, N. Y., and what was your post-office address when you resided there?

A. I think I lived there in 1872 or 1873; my post-office address, Addison, Steuben county, N. Y.

X Q. 33. Have you corresponded with Col. Nelson W. Green since he left the army, in February, 1862?

A. I have never had but two letters from him, I think.

X Q. 34. Where and when did you receive them?

A. I received one during the war, and one a few days ago.

2860 X Q. 35. Have you the one you received last here with you?

A. I have not.

X Q. 36. When did you commence the business of stock drover?

A. I commenced on a small scale when young, but not for myself until I went to Texas.

X Q. 37. When you resided in Addison, Steuben county, N. Y., did you know a man residing there by the name of Westlake?

A. I didn't know him; I knew there was a "Westlake" block there, but did not know the man that owned it.

X Q. 38. What business did you pursue while residing at Addison, N. Y.?

A. Buying and selling stock.

X Q. 39. You stated on your direct examination, in answer to question 7, that you acted as the orderly of Col. Green; what duties did you perform in that position?

A. I carried orders from the colonel to the different captains of the companies, and such like, and rode his horses around town for exercise.

X Q. 40. What other person or persons acted as orderlies for Col. Green besides yourself while the 76th regiment was in camp at the fair ground?

A. My cousin, Henry P. Lason, done a good deal of writing for him, and Geo. Pulling took care of his horses, grooming them, etc.

X Q. 41. When did you see Pulling or Henry P. Lason last?

A. I saw Henry P. Lason this last winter in Chicago, at the Grand Pacific Hotel, at the time of the editor's convention there; I mean this was in the winter of 1879 and 1880; Henry P. Lason lives at Oregon, Ogle county, Illinois, and that is the post-office address.

X Q. 42. Was the horses of Col. Green which Pulling groomed and took care of kept at Green's residence, opposite the carding-mill?

A. Yes, sir.

X Q. 43. Where did Pulling and yourself lodge and take your meals at the time you were acting as orderlies for Col. Green?

2861 A. Pulling lodged at the camp and at the house part of the time and I did also, but I was at the house more than he was.

X Q. 44. Did Pulling aid in preparing fuel and doing chores about the residence of Col. Green at the time mentioned?

A. He did.

X Q. 45. What other duties did Pulling perform at this time? State as fully as you are able.

A. He was sort of a waiter and was around there most of the time; I cannot state what other business he had.

X Q. 46. Did you learn in any way that Pulling had previously to his connection with the 76th regiment been a well-digger and engaged in the construction of wells to any extent?

A. If I did I have forgotten it; I don't remember that he had; I think Pulling helped make this well at the house; I think he helped get the tools.

X Q. 47. Did you assist in making the well, as you call it, near Green's residence?

A. Nothing more than in hunting up the tools that Col. Green wanted.

X Q. 48. Is it not a fact that Pulling performed most of the manual labor in making this well, as you call it, near Green's residence, the work being somewhat dirty and hard?

A. I think he did take quite an active part in it, but under Green's instructions, though.

X Q. 50. Green was not present during all the time this well, as you call it, was being made, was he?

A. No, sir.

X Q. 51. Was he there until it was nearly completed?

A. It seems to me he was there when they commenced it, and came back before it was finished or they had got done with it.

X Q. 52. Is it not true that all the tools had not arrived at the spot before Col. Green left, and that when he returned water was being pumped by Col. J. C. Carmichael and others from a hole in the ground made with a crowbar by means of a small tin boat or liquor pump?

2862 A. I am not certain that any tools were got after he left or not; I don't remember whether they had got the pump on when he got back or not; I couldn't remember to swear whether they ever got any water out of it or not, but I think they did; it was a short-lived thing any way.

X Q. 53. Is it not true that nothing was actually done toward making a hole in the ground or an experimental well until after Col. Green had left his residence, and when he returned the experiment had been completed and water had been pumped from a hole in the ground near the creek, and is not this all the well that was made at that time or place?

A. I think I remember of Col. Green's pointing out the place where he wanted the well made, or where they could get water the easiest or best, or something like that; I think Col. Green stayed there until the well was started.

X Q. 54. What had been done before he left?

A. It seems to me they had begun punching the ground some; I am quite certain of that; there was a little difference of opinion as to which place would be best.

X Q. 55. Who handled the crowbar? And describe how it was used.

A. It seems to me they punched down a little, and then took a maul and drove down; I think Pulling done some of the pounding or bar work at the house.

X Q. 56. Will you swear positively that the crowbar was driven in making this hole in the ground?

A. I can't say for certain; I won't swear positively.

X Q. 57. Describe the location of this hole in the ground with reference to the residence of Col. Greene and the carding-factory.

A. The hole in the ground was between the house and the creek, and back of the house, nearer the house than the creek; I cannot tell the points of compass as to the direction from the house, but the carding machine is on the opposite side of the road.

X Q. 58. No water taken from this hole was ever used to your knowledge?

A. No, sir.

2863 X Q. 59. You never knew of this hole in the ground being used as a well, did you?

A. No, sir; I never did.

X Q. 60. How near were you to this hole at any time while these persons you have mentioned were present?

A. I believe I went out there to them once, maybe; I was there one time, anyhow; I saw them at work; I was within ten or twelve feet from the hole or place where they were at work.

X Q. 61. Do you remember the fact that when the crowbar was being chucked into this whole into the ground dirty water spurted out and bespattered the clothing of some of the officers standing about, which was a subject of some merriment at the time?

A. I don't remember it; still it might have been.

X Q. 62. About how deep was the hole?

A. I don't know how deep, but they might have got it six feet deep, but not any more than that, I think.

X Q. 63. How far was it from the surface of the ground to the water in the hole?

A. I cannot tell; I don't remember.

X Q. 64. Did you see any water in the hole?

A. No; not that I recollect of; I was not there all of the time.

X Q. 65. Do you now remember that any one handled the crowbar beside Pulling?

A. I think there was, but I don't know who; I don't remember.

X Q. 66. Did Mudge or Carmichael use the crowbar to your recollection?

A. I don't know; I was not there all the time.

X Q. 67. Can you remember where you went or what you did while this hole was being made? If so, please state.

A. I came to the village with some part of the concern to get something done to it—some repairs, or something of that kind; it was something about the pump perhaps; I don't know.

X Q. 68. What shop or place did you go to in the village for the purposes you have indicated in your last answer? State, if 2864 you can, who the proprietor was, where and on what street located, who you saw in respect thereto, as fully as you are able.

A. I think it was to a shop on this Main street; I can't remember the name or place exactly; I don't remember who I saw or what I had done.

X Q. 69. Please describe the tools used in making this hole in the ground that has here been called a well by complainants' counsel.

A. They had a maul, or something of that sort, an iron bar, and a wooden machine. I can't describe.

X Q. 70. Are you able to describe the tools any more fully?

A. I am not.

X Q. 71. Can you give the dimensions of this crowbar?

A. No; I can't; seems to me they had a pipe there.

X Q. 72. How was the water obtained from this hole in the ground? Please describe the method.

A. If there was any water ever came from it I don't remember it; seems as though they had a pump there, too.

X Q. 73. Did you see any pump there? If so, please describe it.

A. It seems to me I did see a pump there, but I can't describe it.

X Q. 74. Was it a common iron pitcher-spout pump?

A. I don't think it was; it seems to me it was a sort of a tin concern, but I won't swear positively what it was.

X Q. 75. By what conveyance did you come to the village on the errand you have mentioned, and how did you carry the tool or implement which you have spoken of?

A. It seems as if I came with Col. J. C. Carmichael's conveyance to the village, a buggy or a horse and wagon; I carried the tool or the implement to the conveyance I had.

X Q. 76. Are you now able to recollect so as to describe what you had in the wagon?

A. I can't; I cannot give it a name, but it was something about their well arrangement.

2865 X Q. 77. How long were you gone from Green's residence on that occasion?

A. Only a short time; I cannot remember how long.

X Q. 78. Can you remember to state what was said by any one with reference to making the hole in the ground you have mentioned?

A. I think that Green told me afterward, or that night, that he proposed to put it down in some other way, and he said he could make it a success; that he could make it a tight well so that nobody could get to it to poison the water, or something of that kind, and showed me in what shape he proposed to do it in, but still I didn't understand it.

X Q. 79. As you understand it, then, Green disagreed or differed with those by whom this hole had been made as an experimental well, in the process of sinking or constructing the same, and he did not approve of the method they had employed in making the so-called well; is this not so?

A. He did approve of it, but he wanted to do it a little different; it might have been the same process, but there was something different he was going to do in the next one; I think that he said he would drive it down into the ground solid, or get a longer pipe, or something of that sort.

X Q. 80. What do you mean by saying he approved of it and in the next breath say he proposed to make the next one in a different manner from which this one was made?

A. What I think he meant is that he said this well was going to be a success, and either to make it deeper or something of that sort; I don't remember exactly.

X Q. 81. Was it a pipe that you came to the village with, as you have stated, to have something done to it? If so, please describe it—the materials of which it was made and its dimensions.

A. I seems to me it was a piece of a pipe or a tin pipe, or something of that sort; I cannot swear positively what it was; I can't describe it.

X Q. 82. When was your attention first called to what
2836 transpired on this occasion, and with whom have you conversed in relation thereto, and when and where?

A. The first I ever heard of it was the letter I have spoken of as following me to Dakota; in that it was asked if I remembered the circumstances; I have never conversed with any one in regard to it very much; I received this letter I have spoken of; I haven't seen Green since the war, and he has written me nothing in regard to it, except in one letter I got from him during the war.

X Q. 83. You have stated on your cross-examination here that Col. Green did not think that this experiment was complete in all its parts; now, permit me to refresh your recollection; Col. Carmichael swears in this case that the plan adopted at the close of the experiment was to sink galvanized sheet-iron tubing, which tubing was to be made in sections about two feet long, and then put in an inner pipe and attach the pump to it to draw water from it; the sheet-iron pipe, being light, could be easily transported, and the inner pipe could be easily and readily pulled out of the galvanized pipe as the army moved from place to place. Was not this Green's improved method over the experiment as there practiced. The sheet-iron pipe, being cheap, could be left in the ground. Please answer directly.

A. It might have been, but I don't remember anything about it.

X Q. 84. Do you swear positively that such was not the fact? Please answer directly yes or no.

A. I do not.

X Q. 85. You have stated on your cross-examination that one of Green's ideas was that the wells could not be poisoned; this
2867 would be so where the wells were put down temporarily in camp, would it, and there would be no necessity for it? Answer directly.

A. I don't know, I am sure; in reality I don't know much about these wells, never having seen any of them, except upon premises I have purchased in the vicinity.

X Q. 86. Do you know anything of the method employed in the construction of the well on the camp ground?

A. I was there when it was put down and saw about as much of that as I did of the other one.

X Q. 87. Were there two pipes used there—an outer and an inner pipe? Please answer directly.

A. I think there were, to the best of my recollection.

X Q. 88. There was an outer pipe worked down first made of iron, down to and into the water, and then a lead pipe ran down inside of the outer pipe, the pump being attached to the lead pipe; is this not so? Please answer directly.

A. Think there were two pipes used there, but I don't remember how they were used in the well, but wouldn't be surprised if it was some way the way you state.

X Q. 89. Do you swear that I have not stated correctly in question 88 the manner in which the camp-ground well was made?

A. It seems to me that they took up one of those pipes; I think they took up the lead pipe and finally succeeded in getting one of them down, or something of that sort; it has been so long that I won't swear positively to nothing.

X Q. 90. Was not the plan adopted for making that camp-ground well to use two pipes, one as a curb and the other as a suction or draw pipe to the pump? Please answer directly according to your best remembrance.

A. I cannot remember.

X Q. 91. We are now about to adjourn. Will you please not talk or have any conversation with, directly or indirectly, *with* the complainants or their counsel or either of them upon the subjects upon which you have been examined during the adjournment?

2868 A. I will not.

Proceedings are here adjourned until 7.30 p. m. of this day.

(S'g'd) DORR C. SMITH,
Notary Public.

At 7.30 p. m., March 26, 1881, examination of the witness continued as follows:

X Q. 92. Nearly twenty years have elapsed since the events detailed by you on your direct examination took place, and during that time your life has been somewhat checkered and you have been roaming, more or less, over the United States; is this not true?

A. That's the fact.

Mr. Jno. W. Suggett here appears specially and puts the questions *de bene esse* as heretofore stated.

X Q. 93. Your last answer being true, is it not also a fact, Lason, that all the things you have detailed on your direct examination are vague and indistinct in your memory and appear but as a dream?

A. Some things I remember, but a good many things, of course, I couldn't swear positively to.

X Q. 94. Did not Col. Green consider the fair-ground well in all its parts and the method of construction therein employed, as you have testified, as showing his completed invention?

A. I couldn't say whether he considered it completed, but he thought it was a success.

X Q. 95. Did he tell you that the fair-ground well embodied his ideas as to the manner in which a driven well should be made?

A. I don't remember.

X Q. 96. Did you then understand that in that well *that* all the principles underlying and governing the method of obtaining a supply of water from the earth, alleged by the complainants to exist in the use of a driven well as made at present, was then reduced to practice and put into operation?

2869 A. I only understood what he told me, and only about half of that.

X Q. 97. Was Col. Green a man who was very careful to protect his own interests, or was he shiftless in regard to them?

A. He had different ways of doing it than I had; he was flashy, but as far as his interest — I couldn't say.

X Q. 98. Was he not very careful and guarded as to his own interests?

A. I couldn't say.

X Q. 99. He was the owner of considerable property, then, was he not?

A. I didn't consider him very well off financially; I didn't know his circumstances particularly.

X Q. 100. If you saw the construction of the camp-ground well, will you please describe where it was located; also describe the size of the building in which it was placed, if in any building; also the distance of the building from the road fence of the fair ground and also from the south fence of the same?

A. It was located on the south side of the road as we went in, not a great ways from the road; the well was in the back or west end of the mess-room or cook-room; this building was not a great way from the road fence; I can't tell how far; the building was some little distance from the south fence, but I cannot tell how far.

X Q. 101. You have sworn on your direct examination that it was Col. Green's idea that the earth should be pressed around the pipe; you have testified that there were two pipes used in the construction of the camp or fair ground well; it was Col. Green's idea, was it not, that the earth would be packed in around the outside pipe? Please answer directly.

A. I think certainly that was his idea; I am quite certain.

X Q. 102. Now, was it not also his idea that the inside pipe could be made of lead or was to be made of lead, and if the regiment was called upon to move quickly when down to the front the lead pipe could be pulled out from the outside pipe easily and rolled or
coiled up so as not to take much room in the wagon in case it
2870 became necessary for the regiment to change its position
quickly, and was not that a reason that the camp or fair ground well was made with two pipes, as you have sworn? Please answer directly.

A. It might have been, but if it was I don't remember.

X Q. 103. On reflection do not you remember that Green had some conversation with you in reference to the plan set forth in the last question?

A. If he did I don't remember it; he talked to me a great deal, and I used to say "yes" to everything he said to me.

X Q. 104. Are not all the details and minutia regarding the construction of the *of the* hole in the ground at Green's house mostly gone from your memory?

A. There is no doubt but that part of it has; still I remember about their working there and a sort of a well being started there.

X Q. 105. How many interviews have you had with. Mr. Goodrich, Mr. Waters, or Parsons, or either or all of them?

A. Mr. Parsons wrote to me at Center Lisle, telling me he wanted me here, or something of that sort; I answered his letter, I believe; think he wrote asking me what I knew about it, or if I was the man, or something of that sort; believe I told him it had been a long time since I saw it; Mr. Parsons came down twice to see me; I never saw Mr. Goodrich only here at the hotel; I never saw Waters until to-day here in this room that I know of; I have seen Goodrich twice at the hotel, but a few minutes at each time; Parsons came the first time to see me, and the second time he came after me.

X Q. 106. Did not Mr. Parsons come after you yesterday at your place of business in Centre Lisle, which is over twenty miles from here, bring you up to the Messenger House, in the village, last night, where you met Mr. Goodrich, who has examined you on your direct examination when you went to his rooms, and was there closeted with him for a considerable length of time, you knowing that you would be called as a witness this morning; is not this all so? Please answer yes or no.

2871 A. I was there with Goodrich only a few minutes, and he asked me several questions; he had business with a lady and asked me to excuse him, and I was glad to excuse him.

X Q. 107. You have stated that you were orderly for Col. Green when he was confined at Washington; he was so confined, was he not, for having committed the crime of shooting McNett at Cortland?

A. I didn't understand it so.

X Q. 108. He was confined there from about February until March, 1862, when he was ordered to his home in Cortland. Is this not so?

A. He was confined at his quarters for a few days, until I came to Washington and got Senator Doolittle, his friend, to go with me to the regiment and procure his release; he was then ordered home to Cortland from his boarding place, but he had been released for about three weeks before this happened.

X Q. 109. Then, in June, 1862, was he not dismissed from the service by an order of Hon. Edward M. Stanton, then Secretary of War?

A. I think he was.

X Q. 110. And that ended his connection with the military service of the U. S. and that of the State of New York, so far as you know?

A. Yes, sir.

X Q. 111. You have stated that you stayed with him while he was in confinement at Washington. How long was he under actual confinement?

A. I don't know as it was considered confinement in Washington; he boarded at the same hotel with the senators; he was confined in his tent about a week, and that was all.

X Q. 112. You don't mean to say, do you, that he would disturb your rest every night during that week?

A. He was no comfortable man to sleep with; I had rather have a rational man to sleep with.

X Q. 113. You say he was taking medicine. Was he suffering from some disease he had contracted? Please answer directly.

2872–2878 A. He had no disease, unless it was something of the kind I have spoken of; but still he might; I only stayed with him a part of the time, but the nights I stayed with him he was very restless indeed.

X Q. 114. From the time you first knew Colonel Green until the time when you ceased to know him in March or April, 1862, did you endeavor in every way possible to keep on the good side of him and in his good graces, and did you make it a special study to do so?

A. I tried to do so.

X Q. 115. And did you take a great interest in him and go to such an extent that you violated military orders and was arrested yourself for so doing?

A. I didn't violate his orders. I got sent over to Fort Massachusetts.

X Q. 116. Has any subpœna or process of the court been served upon you to be a witness in this case?

A. No, sir.

Defendants here close the cross-examination *de bene esse*, not waiving but insisting upon their objections and protest to suppress this deposition.

Finished at 9 p. m.

The witness here subscribes the record and again swears to the same.

(S'g'd) G. W. LASON.

Subscribed and sworn to before me March 26, 1881.

(S'g'd) DORR C. SMITH,
Notary Public.

2879–2884 And the respondent, to sustain the issues in his behalf, introduced on the hearing in said cause the following testimony and documentary evidence, to wit:

2885 TIMOTHY H. BUXTON, being duly sworn, deposes and says:

Q. 1. State your age and place of residence.

A. Am 64 years old; reside at Warsaw, N. Y.

Q. 2. How long have you been a resident of Warsaw?

A. Forty-four years.

Q. 3. What has been your business in Warsaw?

A. Have been engaged in the wagon & carriage making business for 44 years and in other business during a portion of that time in connection with this; have been in hardware business five years and in sheriff's office six years.

Q. 4. Where was your shop where you manufactured & sold carriages & wagons?

A. First place was on Water St., in this village; then I moved on Main St. opposite of Livingston St.

Q. 5. Can you tell about the year you moved your business upon Main St.?

A. Between 1842 & 1845.

Q. 6. How long did you carry on business there?

2886 A. 6. Have manufactured there up to the present time, more or less.

Q. 7. Who, if any one, was associated in business with you when you came upon Main St.?

A. My brother, Chancy C. Buxton.

Q. 8. How long did he continue associated with you in the carriage business after you moved onto Main St.?

A. I should think, perhaps, in the neighborhood of twenty-four years; it might not have been quite as long as that; we were in business together thirty years, during the whole time.

Q. 9. Did your brother Chancy retire from the business?

A. Yes.

Q. 10. What year was it that your brother retired?

A. In the fall of 1866.

Q. 11. Who, if any one, succeeded your brother in the business?

A. Charles P. Williams, Ferris W. Norton, and Delos A. Crippen.

Q. 12. How long did you continue the business with them as partners?

A. About three years.

Q. 13. After you came upon Main St. was the manufacturing carried on in the same lot of real estate?

A. It was carried on in the same place.

Q. 14. What was the business you did on Main St.?

A. Manufacturing of carriages, lumber wagons, job work, and all kinds blacksmithing.

Q. 15. Did you ever know Nelson W. Green?

2887 A. 15. Mr. Green I was not personally acquainted with.

Q. 16. Did you know who he was?

A. I knew a person here that they called by that name, who stopped here with his sister, Mrs. Windsor, across from me.

Q. 17. Did Mrs. Windsor own a lot near your shop?

A. I am not sure; her land came within a hundred feet of us or joined us.

Q. 18. Was there any water-course, artificial or natural, that crossed your lot?

A. A mill-race run right under our shop.

Q. 19. How did you supply your shop with water?

A. We used from the race and a well outside, and part of the time from two wells, and part of the time from a reservoir.

Q. 20. Did you have any machinery in your shop at any time that was run by power part of the time?

A. Very soon after we went on Main St.—can't say how soon, but soon after—we put in a six-horse engine in company with Hiram E. Adams; he always run the engine.

2888 Q. 21. Did you afterwards put in another engine in place of this one?

A. I think we put in a new engine; am not sure but what we had this one repaired.

Q. 22. About what year was this?

A. In the summer of 1858.

Q. 23. From what wells did you supply the shops with water?

A. From two wells outside of the smith shop.

Q. 24. Were these shops all in one building or in different buildings?

A. Different buildings.

Q. 25. How many different buildings were occupied there by you as shops.

A. A part of the time two, and afterwards three.

Q. 25½. Were these shops wood, brick, or stone?

A. The smith's shop was brick; the others wood.

Q. 26. Which way from the wood shop was the brick shop?

A. West.

Q. 27. What is the distance between the shops?

A. From 40 to 50 feet, I think.

Q. 28. You speak of two wells, Mr. Buxton; who put them down?

A. One of the wells we put down; the other I am not sure; think we put them both down.

Q. 29. What kind of wells were they? Describe them.

2889 A. One of them was dug and stoned up like a common well; the other was a well what is commonly called a drive well. In the first place, I took a piece of gas-pipe, common size or large enough—about the size they use now—I can't tell within a quarter or half inch. I took, in the first place, the pipe, of the length I wanted, & drilled in one end small holes sufficient to let water in; I then had a plug turned to put in the bottom end of the pipe, with a shoulder so the plug couldn't drive up into the pipe, one end being small enough to go up into the pipe 4 inches; then from the end of the pipe or the shoulder in the plug—from the shoulder to the end of the plug—it was 10 or 12 inches; it was turned right down to a point; this plug I put in the bottom of the pipe; then I took a common crowbar and made a hole in the ground as far as I could with it, then took the pipe, put it into the hole, and drove it down the depth I supposed we would find water; then I took a bar of round iron and put into the pipe and punched 2890 out the plug at the bottom, then took my pump and screwed onto the top of the pipe, there having been a screw cut onto the top of the pipe previously for the purpose of a pump; after putting on the pump we commenced pumping and got our water.

The witness here requested the notary to read over his answer to the last question to him, which the notary done.

Q. 31. Mr. Buxton, who cut this screw on the top end of the pipe?

A. I am not certain who cut it, but I think it was done by one of our men.

Q. 32. Did you have men and machinery in your shop for doing such work—cutting screws?

A. Yes, sir.

Q. 33. About what was the length of this pipe that you used for that purpose?

A. I should think 8 or 10 ft.; might have been more.

Q. 34. Who turned the plug that you put in the bottom end of this pipe?

A. Mr. Adams—H. E. Adams.

Q. 35. Who drilled the holes in the bottom of the pipe?

A. I think Mr. Adams did; might have been some other men; some of the smith hands might have drilled it.

Q. 36. Was it done in your shop?

A. Yes.

Q. 37. How did you drive this pipe down?

2891 A. After starting, as I spoke of, with a bar, I took a block of wood and laid on top so as not to bruise the top of the pipe, and then drove it down with a sledge.

Q. 38. How did you secure it in driving it?

A. We took a pair of tongs, commonly called gas tongs, such as are used for holding pipe and screwing it together, and in driving the pipe we turned it around with these tongs, so as to keep it straight and drive it easier.

Q. 39. In what direction did you drive it—perpendicularly or on a slant, or how?

A. We intended to have it perpendicular. It went there, I presume.

Q. 40. Describe the ground there where you drove it.

A. Sandy, light soil; rather loose, I should say—the lower part; might be what we would call loose gravel.

Q. 41. Do you know whether there had ever been a well or any excavation of any kind where you drove this pipe down?

A. No, sir; there never had been any, to my knowledge; no appearance of it.

Q. 42. What was this plug put in the bottom end of the pipe for?

2892 A. 42. In the first place, it was put in for the purpose of keeping out the dirt from the pipe, and then for the convenience of driving it down, making the end sharp, so that it would go through the ground.

Q. 43. Was this well with a pump on it used at the shop there after that—the well with the pump on it, as you have described?

Ans. It was.

Q. 44. Was this well with a pump on it, as you have described, used at the shop there afterwards?

A. It was.

Q. 45. How long do you know of its having been used there?

A. It was used there several years, until it was taken up for the purpose of building over where it was, and then replaced near the place where the other was, or it may be 30 ft., or it may be very near. It may have been 30 ft. from where it was before.

Q. 46. Was this spot where this well was first put down afterwards built over?

A. I think it was.

Q. 47. What was done with the well, if anything, when they put up the building over the place where it stood?

A. Pipe was pulled up and the well left just as it was.

Q. 48. Was the pipe afterwards put down anywhere else?

2893 A. It might and might not have been; can't say whether it was or not, but I think this same pipe was put back with an addition on the end. I think the end was fixed some little; different some way; don't remember whether we used a plug.

Q. 49. After you put up this new shop that you speak of was there any well put down in that shop?

A. This same well that we just spoke of was put down.

Q. 50. Do you know whether you used this same pipe & the same pump in this new well that you had in the other one?

A. My impressions are that the same pipe was used in the second well that was used in the other one. The pump might have been a new one or it may have been the other. The first pump may have been worn out, and we may have had two pumps on the first well.

Q. 51. Can you tell any extent the well you first put down was used?

A. It was used for all of our smith purposes, some setting of tires outside; then it was used by other parties. Gates, Breck, & Hurd used it for watering horses and such purposes as they wanted. They were close by, and their customers would come there with teams and use it for watering their horses. I always kept a pail there for that purpose.

Q. 52. Was this well you first put down under any building or out-doors?

A. It was out-doors.

2894 The further examination of this witness is here adjourned until 10 o'clock, Feb. 19, 1880.

(Signed) EUGENE M. BARTLETT,
Notary Public.

Feb. 19th.—Parties appeared, as before, pursuant to adjournment, and examination of TIMOTHY H. BUXTON continued:

Q. 53. Mr. Buxton, you spoke yesterday of two engines you had in your shop. When was the first engine put in?

A. In the summer of 1858.

Q 54. Was there a time when Mr. Adams and Mr. Fargo were in your shop together running an engine?

A. Yes, sir; there was.

Q. 55. When was it, Mr. Buxton?

A. 1858; commencing in the spring—1858.

Q. 56. How long did they continue together there, if you know?

A. About a year. I think they commenced in the spring and run up to the winter of 1858; less than a year or about a year. I can tell to a day by looking at my books.

Q. 57. Was there any other well or wells in this blacksmith shop except this drive well that you have spoken of?

A. There was none but that, and probably that was outside of the shop if it was the first well. The second was inside the shop.

Q. 58. How near the blacksmith shop was the first well put down?

A. Very near, I should think; close by.

2895 Q. 59. Where was the second well put down?

A. It was put between the forges in the shop; I can't define it closer than that, between two forges on one side the shop.

Q. 60. Was there any other well in the shop?

A. None.

Q. 61. How was the second well put down?

A. About the same as the first; a pipe was sharpened and fitted to be driven without the plug in the end; it was driven down same as the other, as I recollect; I think a block was put on the top; driven down with a sledge after a hole had been made in the ground, as before, with a bar, held with the tongs, and pipe turned around with the tongs as it was driven to keep it straight.

Q. 62. How much of a hole mas made in the ground with a bar before you commenced driving pipe?

A. Well, as large a hole as you could make with a common bar.

Q. 63. About how deep was that hole made with the bar?

A. I couldn't tell, but I should think it couldn't — been very deep; perhaps two ft. or more.

Q. 64. Was there any excavation made by throwing out the earth?

A. I don't think there was.

2896 Q. 65. Can you tell the year in which this first well was put down?

A. I am sure it was there in 1858, in the spring.

Q. 66. Can you tell how much earlier than 1858, if any, this well was there?

A. I think it was put in in the spring of '58; that is my best recollection.

Q. 67. After it was put down there what was done with it; how long a time, if any, was it used?

A. It was used several years for the purpose of getting water for the shops.

Q. 68. Was it used by any other persons than those employed in and about your shops?

A. It was.

Q. 69. After you first commenced pumping from this well what did you pump up—water or earth, or both, or anything else?

A. We first put water into the pump and started the pump; then we pumped up dirt and mud and roily water until we got clear water.

Q. 70. Did you at any time have in your employ a man by the name of Smalley.

A. (Witness here refers to his books.) Yes, sir; I did; Samuel Smalley.

Q. 71. When did he commence working for you and how long did he continue?

A. He commenced May 6th, 1859; he worked until the 21st day of January, 1860.

2897 Q. 71½. In which of your shops did he work and at what species of work?

A. Smith shop—carriage ironing.

Q. 72. Do you know Alanson Burr?

A. Yes, sir; he worked for me 35 years.

Q. 73. Was he at work for you at the time this first well was put down?

A. He was.

Q. 74. Did he assist in putting it down?

A. I don't remember; he was one of the hands in the smith shop.

Q. 75. At what branch of the business did he work?

A. He worked in the smith shop.

Q. 76. At the time you put down this first well had you ever seen or known of any such wells?

2898–2899 A. 76. Don't remember of any.

Q. 78. Describe the pump you put on this well.

A. It was a common iron pump, such as is commonly used for that purpose; screw was cut on the end of the pipe and the pump was screwed on there.

Q. 79. How much, if any, of the pipe came above the surface of the ground?

A. About a foot, I should think; may have been a little more.

2900 Cross-question- by Mr. Andrews, one of the complainants:

X Q. 1. What line of hardware business were you engaged in, as you have said, for five years?

A. Common hardware—retail; of the firm of Morris, Buxton & Co., and a part of the time O. S. Buxton & Co.

X Q. 2. Please define what you mean by common hardware, and name such of the leading articles you dealt in as you are able to do.

A. Stones, iron, bar-iron, all kinds of iron, such as is used for common purposes; nails, shelf hardware, such as screws, saddlers' goods, carriage trimmings, tinware, and such hardware as is usually kept in stores at Warsaw commonly designated as hardware stores; glass, paint, oils, varnish.

X Q. 3. In designating what you mean by the term common hardware you have, in answer to my question, named oils, paints, and varnishes. Is that common hardware?

A. It is such as has been sold here in our place for the last twenty years by hardware men, in connection with the others I named.

X Q. 4. The answer just given is not responsive to the question. Will you please answer directly whether oils, paints, and varnishes are common hardware?

2901 A. They are such as are sold by hardware men in connection with the others I have mentioned, as far as my knowledge extends, but may not be regarded as hardware.

X Q. 5. Question repeated. I should like a direct answer to my question and shall insist on it or a refusal.

A. I don't know as they are regarded as hardware goods, but are kept in our hardwares and sold in our hardwares.

X Q. 6. Do you not know that they are not hardware?

A. I know that they are oils, paints, and varnishes and kept by hardware men and sold in places like this and regarded as hardware goods.

X Q. 7. Do you refuse to give direct or any other answer to my question?

A. I don't know of any other answer that I can give than what I have given, as I regard them to belong to the hardware trade.

X Q. 8. Then do I understand you as meaning to say that you do not know whether paints, oils, and varnishes are or are not hardware? Please answer directly yes or no.

A. I don't regard paints and oils exclusively hardware, but
2902 I do regard them as belonging to the hardware trade as much as spokes, felloes, or any wood-work is.

Further cross-examination of this witness was postponed until 4 o'clock p. m.

X Q. 9. During what years were you engaged in the hardware business?

A. I shall have to look at my books or some of my papers. I can't give the definite dates; will have to look at my books. I can't tell from the books which I have here. My impression is that it was the fall or winter of 1853 that we commenced business, but I don't see anything here that satisfies me.

X Q. 10. Then, if I understand you, the time during *in* which you were in the hardware business extended from the fall or winter of 1853 to the fall or winter of 1858? Is that correct?

A. I was engaged in business in round numbers, as we call it, say nothing about months, about five years; am not certain, but think I commence- in the fall or winter — 1853.

X Q. 11. Did you keep in stock in your hardware store well and pump fixtures?

A. I think we did.

X Q. 12. Please tell us what kind of pumps and of whose manufacture.

A. I think we used the Holly Manufacturing Company at Lockport at first. I think we used a pump at Seneca Falls; I don't know the name. My memory is short on names and I can't put my mind on it. I think we bought of two other firms, but I am not sure.

2903 X Q. 13. When you say "I think we used pumps" do you mean to say that you did use pumps of these several manufacturers or that you bought and sold them?

A. We bought and sold them. I thought I was understood so. We may have used some of them; can't say.

X Q. 14. Whose make of pump did you use upon the tube well of which you have testified?

A. Couldn't tell.

X Q. 15. Please describe the pump.

A. Common cast-iron pump—short, such as was used for screwing on to pipe and for cistern & well pumps. I don't know the number of the pump; can't tell its length.

X Q. 16. Was it a pitcher-spout or force pump?

2904 A. I can't say which it was. It was a pump commonly used those days, and I presume it was the best we could get.

X Q. 17. Was the pump either a pitcher-spout or force pump?

A. I couldn't tell you. I have given you as near a description of the pump as I can remember.

X Q. 18. Then I understand that you cannot so describe the pump as that a person familiar with the business could understand and decide what style or class of pump it was. Am I correct?

A. The pump was such a pump as we used for pumping when our engine would not work, and such as was commonly used in those days; such as was used for screwing on a pipe.

X Q. 19. You have stated that there was a plug turned and inserted in the bottom of the tube which you sunk in the 2905 ground. Of what material was that plug made?

A. It was made of hard wood, of my own knowledge; can't tell what the timber was. My best impressions are that it was hickory or oak.

X Q. 20. What was the nature and size of the gravel into which you say you inserted the tube with this wooden plug in its lower end?

A. My best impressions are that the top soil was light, sandy; and as we went down further it became coarser sand and mud at the top.

X Q. 21. What was the length of the taper of that plug?

A. I should think from six to eight inches; it might have been a little less than that or a little more.

X Q. 22. In your direct you stated that the soil below was what we call loose gravel. Please describe what you mean by loose gravel; its nature and its size, or the sizes of the particles.

A. Small gravel mixed with loam or dirt; what we call a light soil—small gravel.

X Q. 23. How deep down from the surface was it before you came to this loose gravel?

A. Don't think I can tell; have no means of telling. I judged, from the dirt that came up through the pump, that wherever that was it was a light gravel.

X Q. 24. Please to give us the size of the small gravel as has been before asked, and of which you spoke in your answer to cross-question 22.

A. I don't think I can give any description of the size. I judged, from what came up through the pump, that it was fine gravel.

X Q. 25. Please give us your understanding as to what 2906 size small gravel is.

A. It might be like small shot mixed with dirt and so down to sand.

X Q. 26. Do you know whether or not these were round or flat stones, stones as big as your fist, your foot, or your head, in that soil into which you inserted that pipe?

A. I have no knowledge of any such as that. I never saw any appearances of any such thing or any stone of that kind.

X Q. 27. Do you know that there were not such stones there?

A. I dug a ditch west from the race about 20 feet south of where this well was and about 150 feet east and west, and perhaps six or seven feet deep in places, or more, and found no stone or very coarse gravel, to my recollection, in that ditch of any amount; there might occasionally be a small stone.

X Q. 28. To what depth did you insert that tube, measuring from the surface of the earth?

A. My best recollection is, now, from 8 to 10 feet; perhaps more.

X Q. 29. Then the pipe was driven several feet deeper than you dug the ditch, was it not?

A. It might have been deeper. The ditch was not dug the same time the pipe was put in; it was dug after for other purposes.

X Q. 30. For what purpose was this ditch dug?

2907 A. For the purpose of putting in a pipe to convey water from the race to a reservoir some hundred feet west of our shop for the express purpose of setting tires, as that was the place where we set tires.

X Q. 31. When was this ditch dug?

A. Am not positive, but my best memory would be soon after the well was put down; perhaps the next year; may have been longer or shorter. I can't tell.

X Q. 32. How was this ditch connected with the race and how was the ditch prepared for the passage of water after being dug?

A. I think we used wooden pump logs. We dug the race deep enough so that there would be a small fall from the race to the reservoir, and then put in our wooden pipe. The end which went into the race we covered with tin or sheet iron punched with small holes to let the water in; the other end went into a large cistern that was sunk into the ground; then we filled up the ditch with dirt over the logs, over the pipe.

X Q. 33. How far below the surface of the water in the race did this log enter the race?

A. I think it lay right in the bottom of the race, or very near the bottom.

X Q. 34. How deep was the water in the race?

A. Probably a foot at high water; might have been double, and in low water less; there was a swift current.

X Q. 35. Was there a mill below your shop driven by the water that passed through this race?

A. There was.

X Q. 36. How was this race formed?

A. From the pond, perhaps 100 or 150 feet south of us; part of the way an open race.

2908 X Q. 37. How deep was the race where it passed through your premises, measuring from the surface of the earth to its bottom?

A. The south line of our lot—I should think it was from two to three feet deep; the north was less.

X Q. 38. Was the race covered over where it passed through your premises?

A. There were two buildings over the race; then a drive-way about 15 feet, covered over; the rest was open; all the covering where the buildings were were the buildings which covered it.

X Q. 39. Is this race still in existence?

A. It is.

X Q. 40. Does the water that passes through it still operate the mill below?

A. It does.

X Q. 41. How long has this race been in existence, the water passing through which operates the mill below?

A. I don't know myself; I can't remember when the mill wa'n't there; I can remember 55 years ago.

X Q. 42. What was the size of the cistern into which the water flowed from the race through the logs which you have described?

A. My impression is that it was— feet deep, six feet across the top; might have been a little larger or little smaller.

X Q. 43. Is there any, and, if so, what, difference in the level of the ground at the race and at the place where the cistern was built?

2909 A. I should think it might be 3 feet lower where the cistern was than the race; the water in the race was usually about as high as the top of the ground at the cistern.

X Q. 44. What part of the ditch you have described was dug 6 or 7 feet deep?

A. Perhaps two-thirds of the way from the race; might have been more in some places; the south side of our lot pitched to the north & the west.

X Q. 45. How deep from the surface of the ground was the bottom of the race at the point where the ditch and logs started from it?

A. It might have been three or four feet.

X Q. 46. Was the race walled or lined?

A. Part of the way there was a wall and part of the way it was just dug out of the ground.

X Q. 47. How was it at the point where you took water from it through the logs?

A. It was dug out and sloped off each way from the water 10 or 15 feet; no wall; the slope was 10 or 15 feet in width, extending from the bottom of the race to the surface of the ground, and the bottom of the race was from 2 to 3 feet lower than the surface of the ground; at that time there was no wall nor plank there.

X Q. 48. You have said that the pipe you inserted in the earth had a screw cut upon its upper end by some person in your shop;

was that screw thread cut upon the outer or interior surface of the pipe?

A. It was cut upon the outside of the pipe; that is my impression.

2910 The further cross-examination of this witness here postponed till February 20th, 10 o'clock a. m.

FEBRUARY 20th—10 o'clock a. m.

Parties met pursuant to adjournment.

X Q. 49. How or by what means was this screw thread cut?

A. I can't say what kind of dies — machinery was used for it; it was cut to fit the pump we used for it; they were fitted to each other, but what kind of dies were used for it I can't say.

X Q. 50. What dies had you in use in your shop?

A. We had the common plates used for cutting common bolts, also an engine lathe and screws and plates for cutting pipes of that kind on inside and outside; whether it was done by the engine lathe, the screw, or plate, I cannot tell.

X Q. 51. Did you cut a screw-thread upon the pump or was it already cut upon the pump when you purchased it?

A. My impressions are that the screw was cut upon the pump when we bought it.

X Q. 52. Did you take this pump out of your stock in the store or did you buy it specially for the purpose?

A. I don't remember where I got the pump; I might have taken it from the store or got it at some other place.

X Q. 53. Then do I understand you that you are unable either to describe the pump, give its trade designation, whose make it was, or where you bought it?

A. The only description I can give of it is that it was a
2911 pump used for cisterns, wells, and other purposes at the time.

X Q. 54. Do you consider, Mr. Buxton, that what you have said in relation to that pump is in any manner a description of it?

A. As good as I can make, according to my best recollection; it may not be a description of the pump, but it is as good as I can give from my memory.

X Q. 55. Have you a good memory, Mr. Buxton?

A. I may not be a judge; I don't know but I have a memory as good as others and perhaps not as good as some.

X Q. 56. Was the pipe which you say you put in the ground in one or more pieces?

A. I should say one piece; that is my impression.

X Q. 57. Can you not state more positively whether it was or was not in one or more pieces?

A. I am quite sure it was in one piece; that is my best impression.

X Q. 58. Was this pipe connected to the pump by a coupling, a union, or just how was it connected?

A. My best impressions are that it was screwed on without the coupling; it may have been otherwise.

X Q. 59. Then, as I understand, your recollection- in regard to the details of this tube-well arrangement are very indistinct; am I correct?

A. I think I am quite distinct; I think I remember quite distinct about them.

X Q. 60. In regard to the surface of the ground from the race to the reservoir, was it a straight de-cent from the one to the other?

A. It was not.

2912 X Q. 61. Please describe the surface of the ground between those two points.

A. I should say three-quarters of the distance would be about level and then a gradual de-cent to the reservoir.

X Q. 62. Was the top of the cistern level with the ground where it was sunk?

A. Very near.

X Q. 63. How was the cistern constructed?

A. Two-inch pine sawed into strips, perhaps 3 or 4 inches wide, made into a tub, hooped with iron.

X Q. 64. Was this tub made, hooped, and furnished with a bottom before being placed in the earth?

A. Yes, sir.

X Q. 65. What was the size of the bore of the log pipes which supplied the cistern?

A. I should think from an inch and a quarter to an inch and a half; that is my best recollection.

X Q. 66. What was the outside diameter of the pipe—the log pipe?

A. I think it was four inches square; it might have been a little less and might have been a little more.

X Q. 67. Please describe how this pipe was made.

A. I should say it was sawed into four-inch scantling in the first place and then bored; one end was sharpened off, the other end rimmed out with a rimmer so that it would fit the end fitted to it; the scantling about 6 or 8 feet long.

X Q. 68. Who made this pipe, or where did you procure it?

A. My best impressions are that it was made at a manufacture at Pike of such pipes; don't remember the name.

2913 X Q. 69. How did you procure the water from this tank?

A. We dipped it out in pails.

X Q. 70. Can you give an approximate capacity of the tank in gallons and the time it took to fill it through the logs from the race?

A. I can only give you the size of the tub—I never figured up; can only give the size of the cistern; as to the time in filling up, it would fill up quicker at some times than others, as the water would be higher and there would be more pressure.

X Q. 71. What was the difference in that head and pressure?

A. At different times it would be different; when the water was high it would be more of a fall; I should say three feet fall at the highest water—from the top of the water.

X Q. 72. Please state, as near as you can, the shortest and the longest time which it took it to fill it under different circumstances.

A. I should think when the logs were first put down and no dirt in the bore, perhaps an hour or maybe less than after it had been used some time and the hole in the pipe would be filled up with dirt, as it sometimes did, it would be all day filling up; sometimes it would not run at all until it was cleaned out.

X Q. 73. What was the distance from the race to the cistern?

A. I should say two hundred feet; it might vary either way.

X Q. 74. What was the size of the perforations in the tin or iron over the end of the log, and how was this strainer arranged?

2914 A. I think the end of the log was plug-ed up and holes bored on top and tin punched and the sheets nailed on over those holes. The holes were punched perhaps one-eight- of an inch in tin and the holes in the logs about an inch, perhaps an inch and a half; might have been two or three of them; enough to let the pipe fill up as quick as it could.

X Q. 75. In which direction and at what distance from this woodden tank was the tube well you have testified of?

A. It was west; a little south of west, I should say; 75 to a hundred feet apart.

X Q. 76. Where was the dug well of which you have testified; which direction from the tank and tube well, and its distance from each?

A. Say about seventy-five or one hundred feet directly east of the cistern. The drive well was from twenty to thirty feet north and a little east of the dug well. The drive well was about one hundred feet, and the other about seventy-five from the cistern.

X Q. 77. How did you get water out of the dug well?

A. Most of the time with a pump, a common iron pump, with an iron or lead pipe running down into the water.

X Q. 78. Was it the same kind of a pump as you used upon the tube well?

A. It might and might not have been, as the pump was changed several times, as the water was occasionally out of the well.

X Q. 79. What change was made in the pump to remedy
2915 matters when water was out of the well?

A. This drive well was put there to supply water when the other got out.

X Q. 80. You say in answer to cross-question 78 that the pump was changed several times, as the water was occasionally out of the well. Please explain what those changes were.

A. In the first place the water in the dug well was good to drink; after putting down the drive well the pump was taken up from this well at first; then after we found water in the drive well was not good to drink we put in another, a woodden pump. I think that previous to putting in this wooden pump we procured water by a bucket from this well to drink, with a stick, a handle, attached to it.

X Q. 81. Were these changes you have described in your answer to the last question in consequence and because of the water in the dug well giving out?

A. They were made from the fact that the water in the drive well wasn't fit to drink, and we made the changes to get water to drink.

X Q. 82. Then the statement made in answer to question 78 that the pump was changed several times did not give the reason of that change. Am I correct?

A. The fact was, when there was water there the pump was used a good deal, and the pumps might have been worn out or
2916 broken before we used them for drinking purposes. I think one of them was changed for the fact that we wanted a larger pump; that the other had not the capacity that we wanted.

X Q. 83. Again I ask were or were not these changes made in consequence and because of the water giving out? Please answer the question yes or no.

A. No; not wholly.

X Q. 84. Were the changes in those pumps made even in part because the water in the well gave out?

A. I think they were.

X Q. 85. Please explain how a change of pumps could remedy that difficulty either in whole or in part.

A. Most all the time there would be a little water in the well in the morning; then if there was a large amount used it would be dry at night, and in that case dirt and gravel would come up and injure your pump, and for that reason the pump would be worn out and taken out; then we would use*d* a bucket for a spell in order to dip it out and get clear water; then perhaps we would put in a pump, thinking there was water enough to answer us, and use it a spell, and in that way our pumps were changed several times.

X Q. 86. Please state what kind of a pump you at any time took out of this well because of its being cut and worn by gravel and sand, what kind of a pump you put in its place, and when such change occurred.

A. We used a common cast-iron pump in all cases when we didn't use a wooden one or pail; I can't say what kind or number they were; we most likely put in a larger number than we first did. It was a well used by everybody and liable to be broken—the pump was—and get out of order. In regard to time I should think
2917 for the two years previous to putting down the drive well we used that and made changes from time to time as was necessary in the pumps.

X Q. 87. You spoke of using a woo*d*den pump in that well; when was that put in?

A. My impressions are it was put in after this drive well was put in, when we used the well for drinking purposes only; it might have been put in before.

X Q. 88. Is this dug well still in existence?

A. I think it is; it may have been laid over; I think there is a well in the same place where that was.

X Q. 89. How long is it since you have owned or occupied the premises where this dug well is, and how long since you have used it?

A. A portion of real estate where this dug well is I deeded away in 1870, or about that time; I don't remember the day; I don't remember the day, but I think I went there as early as 1846. I have not used the well since 1870.

X Q. 90. You say you deeded away a portion of the estate where the well was dug. Did you deed away that portion where the well was dug, and who owns it now, if you know?

A. I deeded it away to Williams & Crippen, and they sold it to Mr. Hannigan, who now occupies it.

X Q. 91. What was the depth of that dug well?

A. My impressions are that it was about ten feet at the time we used it; it might have been more; that is my best impression.

X Q. 92. What was its diameter?

2918 A. It was big enough for a person to go down in it; can't say how far across, perhaps two or two and one-half feet; about the size of a common stoned-up well.

X Q. 93. You have said that the pipe used upon the pump in that well was either iron or lead; now, was it iron or was it lead?

A. I think some of the pumps had iron pipe and some lead that I used there.

X Q. 94. Do you know whether or not there is any difference in the connections between a lead pipe and iron pump and the connections between an iron pipe and iron pump?

A. I do know there is difference.

X Q. 95. Please explain that difference.

A. A lead pipe has a brass or some other pipe or metal made into a pipe, with a collar round the top, and a lead pipe is soldered to that. The iron pipe is screwed on in some instances, and in some instances there is a ferule on the iron pipe which screws onto the pump and onto the pipe; and — other cases, as I understand it, there is a screw on the pump and a thread on the pipe, or the reverse, and they screw right together without the ferule.

Further examination of this witness postponed until 4 o'clock p. m.

At 4 o'clock p. m. parties met pursuant to past *pursuant*.

X Q. 96. You have spoken of a power lathe in use in your shop; for what use was it specially adapted and what was its length?

A. It was intended for cutting screws and turning iron of
2919 all kinds; I cannot give its length. There was extensions
to it for extending its length for cutting iron rods, but cannot give its exact length.

X Q. 97. Give its length as near as you can.

A. Say, from 8 to 15 feet; that is as near as I can tell you; might be shorter or longer.

X Q. 98. When did you purchase and commence to use that lathe?

A. It was put in in 1858; cannot tell you the time precise.

X Q. 99. Did you refer to your book for the date?

A. I did.

X Q. 100. Were you enabled by reference to your book to tell the date?

A. I think I can nearly.

X Q. 101. What item, charge, or entry in the book you referred to enables you to fix that date?

A. I have in my books an entry of the time when the lathe was moved from one shop to the other or about that time. In '57 and the fore part of '58 our work was done in a shop a little west of where it now stands; at that time this lathe was in that building and our work was done there. In the spring of '58 our engine was put into the shops, as I have mentioned heretofore, and our machinery was moved at the same time the engine was put in, but the time the iron lathe was in there I am not able to state the day or the month, but up to the time the iron lathe was moved our iron-work was done at the other shop if we required an iron lathe.

2920 X Q. 102. Will you please produce and allow the notary to copy the entry which enables you to fix that date, which entry you just referred to?

A. The entry on our book shows this fact: That the man who run the lathe and owned it and did our work for a year or two previous to this rented power from our Co. and a room to put his machinery into, and the rent commenced the 18th day of December, 1858, but I think the lathe and his machinery was put in several months before, very soon after our engine was put in and started, as I am quite sure that the power was given him for several months to pay him for connecting his machinery above with ours below, and also to pay him for his putting his shaft from his room into our paint-room. I think there was several months there for — we did not charge him any rent, as he did all the work to connect our machinery with that above.

X Q. 103. Now, will you produce the book and entry to which you referred and allow the notary to make a copy of such entry?

A. I will do so.

2921 (Witness hands notary the books and indicates the entry of which the following is a copy — ledger, 1855: "C. & T. Buxton" on the outside of cover. The entry referred to is found at page 627 and is in the words and figures following):

"Commenced rent of shop Dec. 18, '58, at $60.00."

That is all I referred to.

X Q. 104. Of whom and when did you purchase the lathe referred to?

A. I never bought any lathe; I mean that lathe.

X Q. 105. To whom did the lathe to which you have referred belong?

A. I think to Messrs. Gates, Buck & Herd, but I am not positive and can't say certain who did own it.

X Q. 106. From whom did you acquire the right to use it?

A. I rented the room to Elihu Benson, who had run the lathe in the shop of Buck & Herd and who had done our work for us since 1856, he bringing with him the same lathe he used in their shop and putting it into our shop, he doing work for Gates, Buck & Herd the same as he had done before, but doing it in our shop with that lathe. From that fact and others which I knew I suppose it belonged to Gates, Buck & Herd.

X Q. 107. Do you know where the lathe in question now is?

A. I don't.

X Q. 108. How long since you have seen it?

A. I have no recollection of seeing it since 1859 or '60, when he left us.

2922 X Q. 109. In answer to cross-question 50 you said, "We had the common plates for cutting common bolts, also an engine lathe and screws and plates for cutting pipes of that kind *of* inside and outside." Will you please reconcile the statements in that answer with the fact, as you now state, that the lathe did not belong to you or your firm and was not run by a man in your employ even, but who was a tenant of yours working independently for himself?

Witness requests that question and answer 50 be read to him, which was done.

A. Mr. Benson, who worked at the iron lathe, came there for the express purpose of aiding our work, and was regarded under our control and dictation as much as any hand we had, had no right to do work for other parties, when we had work for him to do, without our consent, and in order to pay him for his labor we chose to rent him a shop; he was to put in a lathe and furnish such tools as he had, in connection with ours, to do our work, and for his compensation and for his labor we paid him by the hour; in the same way or in similar way we hired Mr. Adams—only a part of the time. We owned a part of Mr. Adams' machinery, and a part of the time we owned the whole, and in speaking, in my answer to cross-question 50, that we had a lathe and tools for doing such work, I didn't mean to be understood as saying that we owned them; we had the same control of them as though we did own them and the same control of Mr. Benson's labor as though he worked for us by the day or month.

2923 X Q. 110. You say that Mr. Benson had no right to do work for other parties without your consent; in answer to cross-question 106 you say that Mr. Benson had run the lathe in the shop of Buck & Herd and, putting it into your shop, did the same work for them that he had done before for them, and from that fact you say that you supposed the lathe belonged to Messrs Buck, Gates & Herd. Do you or not desire to modify your statement that you had full control—the same control as though you owned them, and the same control of Mr. Benson's work as though he worked for you by the day or month?

The witness requested notary to read the answer to cross-question 109, which was done.

A. No; I don't wish to; only in my answer I said that he had done work for Buck, Gates & Herd, and from that fact I supposed he owned the lathe; I said, or meant to say, from that fact and others I supposed he did not own the lathe.

2924 X Q. 111. What other facts have you reference to?

A. Mr. Benson was a poor man; there were executions against him; he was indebted, and I thought that some of the property would not be exempt from execution, and I don't remember of his ever saying he did own it or claiming that he owned it. I speak there of judgments and executions. I don't remember of seeing them, but that was the report, and parties frequently asked me to make a turn* on his account when I couldn't do it.

X Q. 112. Where, if you know, does Mr. Elihu Benson now reside?

A. I don't know; I have no personal knowledge of his whereabouts.

X Q. 113. How long since you have seen Mr. Benson or known of his whereabouts?

A. I think he went away from here soon after he was there at our shop; I don't remember of seeing him since.

X Q. 114. Mr. Buxton, we have spent a large portion of the time this afternoon in getting explanations from you as to what was the real meaning of certain answers from which the fair inference, if not the absolute terms and language used, seemed to be contradicted by your later testimony, especially in regard to the ownership of tools and appliances, of special interest and importance in connection with the main subject-matter of your testimony. Now, I have to ask that you shall answer explicitly and in terms which cannot be misunderstood such questions as I shall have occasion hereafter to propound to you, and, first, I ask you when you
2925 have answered questions during this examination, either direct or cross, and have prefaced, interposed, or added the terms "I think," "as near as I can remember," "to the best of my recollection," "I supposed," or other apparent qualifications or limitations, you mean to be really understood as limiting your answers, as being uncertain as to the facts given in connection with such limitations, or whether your answers are to be taken as stating facts within your own knowledge without any limitations or provisoes?

A. I would state in relation to that that I am not aware that I stated that I owned any lathe in my own right or any other tools, but that we had such tools and machinery in our shops suitable to do such work as was done; and in regard to stating to the best
2926 of my knowledge or belief, I meant to be understood as I said, according to the best of my knowledge and judgment as I understood it.

X Q. 115. I did not ask you about the ownership of any lathe, and all that portion of your answer relating thereto is entirely superfluous, uncalled for, and not responsive to my question, the large portion of which remains unanswered, and I ask the notary to re-read the question and the witness to answer it as concisely as possible, without adding any extraneous matter.

(Witness here stated that he would answer the question to-morrow.)

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*Uncertain what word.

The further cross-examination of this witness was adjourned to Saturday, February 21st, 1880.

February 21st, 1880.—Parties met persuant to adjournment.

X Q. 116. Are you now prepared and will you please answer the question which was pending and remained unanswered when we adjourned last evening?

2927 A. I don't wish to make any change in my testimony; whenever I have said, in answering questions, "according to my judgment or my opinion," &c., I wish to have it remain just as I stated it.

X Q. 117. Then do I understand you that whenever these limitations are made you do not mean to say positively that the statements made in these connections are absolutely true, of your own knowledge, but only according to your judgment and opinion? Please answer the question directly.

A. I mean to be understood that my testimony as given is just as I mean to have it.

X Q. 118. Do you decline and refuse to answer my question directly? Please answer yes or no.

A. I have answered, as near as I can, according as I understand the question.

X Q. 119. When, in answering a question, you have said it was thus or so, "according to my best judgment," do you mean to be understood as saying that you know such statements to be absolutely true? Please answer the question yes or no.

A. I mean to say just as I said there, according to my best knowledge and belief.

X Q. 120. Where did you procure the pipe with which, as you say, you made your first tube well?

A. I cannot tell positively where I got it.

X Q. 121. Had the pipe been previously used or was it new pipe?

2928 A. I think it was new pipe.

X Q. 122. In answer to direct question 29 you say: "I took a piece of gas pipe." "This plug I put in the bottom of the pipe; then I took a common crowbar and made a hole in the ground as deep as I could with it; then took the pipe and put into the hole and drove it down the depth I supposed we would find water; then I took a bar of round iron and put into the pipe and punched out the plug at the bottom; then took my pump and screwed on the pipe at the top." Will you please say whether you personally did and performed the several movements and operations as there described?

A. I presume I done a part of it and a part was done by the hands; I did not mean to be understood as a-doing all the labor, but I dictated it and told how it should be done—what I did not do myself.

X Q. 123. Please give the names of the persons who assisted you.

A. Mr. Hiram E. Adams, Mr. Joseph Gliss, I think Mr. Lawson Burr, and other hands — had in our smith shop.

X Q. 124. How many hands did you have in your smith shop?

A. Six.

X Q. 125. Please name them.

A. A. Lawson Burr, Joseph Gliss, I think Joseph Colt, two helpers; I don't remember their names; I am not certain, but think Frank Van Loon, George Danher; I refer to my — in relation to George Danher; there are two names that I am not positive about—Joseph Colt and Frank Van Loon.

2929 X Q. 126. Is the book to which you referred a time book kept at the time to which you refer?

A. It is a blotter kept at that time, in 1858, by C. & T. Buxton.

X Q. 127. Have you a time book that was kept at that time containing the names of your employees?

A. The time book at that time is destroyed; we have none. I sold not long since a quantity of old books and this was among them, as I suppose, not being able to find it. I looked for it yesterday.

X Q. 128. To whom did you sell them?

A. A peddler; can't tell his name; he — buying up paper — rags.

X Q. 129. Please give us the present residence of any or all of the parties who assisted you in making this well or who you think assisted you.

A. H. E. Adams, Warsaw, N. Y.; A. Burr, of Warsaw, N. Y.; can't say that he assisted about putting it down; he was one of the men in the smith —; Joseph Gliss went into the army and never returned; I suppose he is dead; George Danher is dead; died in Attica, N. Y.; O. L. Buxton, I think, helped put it down—assisted about the pipe; he may have assisted in getting the pipe; he died in Washington, D. C., this last year; Colt and Van Loon may have been in our shop at that time and assisted in putting it down. I do not know the residence — Van Loon or anything about it. Mr. Colt lives near Albion, N. Y., I think; I am not sure.

X Q. 130. Can you name any other parties who assisted or who was present during the making of this well?

2930 A. My impression is that my brother, C. C. Buxton, was present or about the shops; still I am not sure. Mr. Benson I spoke of yesterday as assisting in cutting or fitting the pipe may have been present and assisted, or he may have not.

X Q. 131. How far from the smith shop was the well put down?

A. Near the west end of the smith shop; I can't tell the number of feet.

X Q. 132. How long were you engaged in making that well from the time the hole was started until the pump was attached and the well completed?

A. We may have been engaged there all day; I am not certain as to the time.

X Q. 133. Can you say who steadied the pipe with the gas tongs, who used the sledge, and who held the timber upon the top of the pipe, as you have said?

A. Cannot tell.

X Q. 134. Were any tools or appliances of any kind other than the pipe, tongs, sledge, and piece of timber used in sinking that pipe after starting the hole with a crowbar?

A. I presume there were other tools used; I don't remember what they were; we used such tools as we needed.

X Q. 135. Please say what other tools and appliances other than those you have described were or could be needed for sinking that pipe?

A. I cannot tell; we used such tools and appliances as we needed at that time.

X Q. 136. Whose idea or suggestion was it, the making of this well?

A. My own.

2931 X Q. 137. Had you ever before seen or heard of such a well?

A. I had never seen any such well, or I don't remember of hearing of them or any such well.

X Q. 138. Do you own or use a driven well at this present time?

A. I do not.

X Q. 139. Have you owned or used any other driven wells than the two you have mentioned in your testimony?

A. I think not.

X Q. 140. Did you keep and sell iron gas pipe in your hardware store?

A. I cannot tell; don't remember.

X Q. 141. Can you say whether or not any dealers in this place kept iron gas pipe for sale in 1858?

A. I cannot tell.

X Q. 142. What use or uses were made of iron gas pipe in Warsaw and its vicinity in the year 1858?

A. We used it about our engine and Breck, Gates & Herd used it about their engine and machinery. I think it was used at the furnace in this town. I don't know but there was gas works in this town then. If so, it was used there.

X Q. 143. What sizes of gas pipe were used about your engine and the engine of Breck, Gates & Herd?

A. I cannot give the size of the pipe that I used definately, but think it was the same size we used for this pump, as we had a pipe from the engine to the race below, with a pump attached to it.

X Q. 144. What use did you make of the pump attached to the pipe from the race?

A. We used it for pumping water from the race to fill up
2932 the boiler when the engine was not in running order or after it had blown off.

X Q. 145. When was this connection and use made?

A. I think in May, '58.

X Q. 146. Was it previous to or after you connected the cistern to the race by wodden piping?

A. It was before the woodden piping was put down.

X Q. 147. Did this iron pipe that supplied the pump at the engine pass under or over ground from the race to the pump?

A. It run direct from the engine down below until it struck the ground or race. A part of the time this pipe run into a barrel sunk down beside the race, so that the water soaked from the race into this barrel. It may have some time run directly into the race.

X Q. 148. How far was the engine from the race?

A. I should think six feet below the floor on which the engine sat to the top of the water in the race. The engine was four or five feet west of the race.

X Q. 149. How far from the race were the barrels sunk into which you say water soaked from the race?

A. Perhaps four feet. In high water the water from the race might have flowed over where the barrels were.

X Q. 150. Is this engine of which you have spoken still in use or existence here in Warsaw?

A. It is not in use here; I don't know where the engine is.

2933 X Q. 151. Do you mean positively to testify that in the year 1858 you had in your shop, or that Mr. Benson had in premises rented from you, dies, chasers, or other appliances adapted to and used for cutting threads on gas pipe of various sizes? Please answer directly.

A. We either had them at that time in our own shop or Mr. Benson or Breck, Hurd & Gates had them in their shop, where our work was done by Mr. Benson previous to Benson's moving into our shop.

X Q. 152. What were those tools or appliances?

A. Screw plates and dies suitable for cutting such pipe.

X Q. 153. You have described a difference in the manner in which lead and iron pipes were connected to pumps. Will you please tell us whether an iron pipe could be attached to a pump whose fittings and connections were intended and arranged for lead pipe without first having to make a change in those connections?

A. I don't know, sir, whether they could or not.

X Q. 154. Did you, previous to the year 1862, ever buy pumps from the Holly Manufacturing Company, Rumsey & Co., of Seneca Falls, or of any other parties, whose connections came fitted to attach to iron gas pipe?

A. I cannot tell; we used an iron pump in 1858 that screwed onto iron pipe or was used on iron pipe.

2934 Examination adjourned to 4 o'c. p. m., February 21st, 1880.

Met pursuant to adjournment.

Cross-examination of TIMOTHY H. BUXTON continued:

X Q. 155. Can you tell how long it took to drive down the pipe to make your first well?

A. It might have been an hour or two or it might have been longer; might have been half a day.

X Q. 156. Can you tell how long it took you to drive down your first well?

A. I cannot tell any more than I have.

X Q. 157. Do you know where either of the members of the firm of Gates, Breck & Herd now reside?

A. I do.

X Q. 158. Where do either or all of these gentlemen now reside?

A. Mr. Herd resides in Batavia, N. Y.; Mr. Gates is dead; Mr. Breck is dead.

X Q. 159. Were you yourself present and assisting when
2935 the second driven well of which you have testified was put
down?

A. I was present.

X Q. 160. Who, if anybody, was present or assisted in making that well? Please name them.

A. I think John West put down the well, and our hands assisted him, but he dictated about it.

X Q. 161. Were you yourself present during the whole time while this second well was being put down?

A. I might have been there all the time and I might not. My recollection is that I shouldn't have been there all the time.

X Q. 162. Do you know how long it was from the time that well was commenced until it was completed?

A. I don't.

X Q. 163. Was you present during the entire time while the first well was being made?

A. I might not have been and I might. I hardly think I could have remained there all the time they were putting it down.

Witness further cross-examined by Mr. **Hurlburt**, of counsel for complainants:

X Q. 164. Mr. Buxton, for what purposes as a motive power is the water in the race that you have spoken of used?

A. Used for driving a grist-mill.

X Q. 165. From what stream of water is it taken?

A. What is called Allen's creek; formerly called Oatka creek.

X Q. 166. Is — a creek of considerable size?
2936 A. Yes; it is suitable size for carrying three runs of stone
at the mill, except in an extreme dry season.

X Q. 167. Warsaw is the county seat of Wyoming Co., and was twenty years ago, was it not?

A. Yes.

X Q. 168. How deep was the barrels that you have testified to inserted in the ground?

A. I think about three feet.

X Q. 169. What year was it that you built an addition on the blacksmith shop?

A. I can't tell.

X Q. 170. You say Mr. West put down the second well; who employed him to do it?

A. I did.

X Q. 171. How much did you pay him for doing it, if you know?

A. I don't remember.

X Q. 172. Did he furnish anything used in the construction of that well; if so, just what, as you now remember?

A. I don't remember of his furnishing anything, still he might; if so, I don't remember what it was.

X Q. 173. Are you prepared to swear positively that the pipe or any part of it used in the first well was used in the construction of the well put down by Mr. West? Please answer yes or no.

A. No; I am not.

X Q. 174. Will you swear positively that a wooden plug was inserted in the bottom of the pipe used in the construction of the second well?

A. I am quite positive that there was no wooden plug used.

X Q. 175. What business was Mr. West engaged in at the time you employed him to put down that well?

2937 A. I think he was a day laborer here and occasionally put down those wells.

X Q. 176. Didn't you know and didn't he state to you at or about the time that he put down that well that he had purchased the right from parties to put down driven wells in several towns about here?

A. I have no recollections of his saying to me anything of the kind, but I did understand, by report or heresay, that he was putting down those wells and he claimed to have the right to.

X Q. 177. Will you swear positively that he did not so tell you?

A. No.

X Q. 178. Can you give me the exact date that West put down that well?

A. I cannot.

X Q. 179. Can you give me the exact date that the dug well you have testified to was put down?

A. I cannot; it may have been there when I went there; I don't recollect.

X Q. 180. In your testimony, when you referred to the engine that you had when you first went there on Main St., and the one you subsequently got or had repaired, you did not take into consideration the engine operated by Breck, Gates & Herd, did you?

A. If I spoke of any engine I did not mean theirs.

2938 X Q. 181. The first engine that you had in your shops on Main St. was obtained from who?

A. I think Colligan & Co., of Buffalo, N. Y.

X Q. 182. What year was it purchased?

A. In the spring of 1858.

X Q. 183. Did you use an engine in your shop prior to that time that belonged to you or your firm?

A. We did not; this was the first engine put —.

X Q. 184. When you say that shop do you mean all the shops that your firm owned or used there on Main St.?

A. Yes.

X Q. 185. Then please explain what you meant in answer to question 20 on your direct examination, when you testified that "very soon after we went on Main St. we put in a six-horse-power engine in our shop in company with Hiram E. Adams."

A. I meant to be understood that this was the first engine that we put in the shop, and if I spoke of its being six horse power it might have been that or less; it was a small engine.

X Q. 186. You have testified in answer to question five that you removed to Main St. between 1842 & 1845; do you now wish to correct your testimony on that point where you say it was "very soon after we went on Main St. we put in a six-horse-power engine in our shop in company with Hiram E. Adams?"

2939 A. I don't desire to correct my testimony in relation to moving, in regard to the time between the moving and putting in the engine; it may be longer than I was aware of.

X Q. 187. Please state in this connection how many years it was from the time you moved on Main St. until the first engine was put in your shop?

A. The first engine was put in in the spring of 1858; I can't give the number of years. I had testified before about the time that we had moved up on Main St., but could not be definate as to the time, and therefore I could not tell the number of years precise, but could tell the year that I put the engine in.

X Q. 188. About how many years intervened?

A. Ten, twelve, or thirteen years.

X Q. 189. Is the engine that you put in, as you say, in 1858, the only engine that you had in your shops on Main St., referred to in your testimony here given?

A. It was, on Main St.

X. Q. 190. Now, Mr. Buxton, will you please explain what you meant when you made the answers to questions 20, 21, and 22, on your direct examination, which questions and answers as given by you are as follows:

"Q. 20. Did you have any machinery in your shop at any time that was run by power part of the time?

"A. Very soon after we went on Main St. we put in a six-horse-power engine in our shop in co. with Hiram E. Adams; he always run the engine.

"Q. 21. Did you afterwards put in another engine in the place of this one?

2940 "A. I think we put in a new engine; am not sure but that we had this one repaired.

"Q. 22. About what year was this?

"A. In the summer of 1858."

A. I see evidently that the two engines we had there is a confliction in the testimony. I did not either understand the question in relation to it at the time or I made a mistake in giving one engine for the other. Previous to 1858 Mr. Adams did our work, as he did afterwards, having most of the machinery he had in 1858, except the engine, but they were in another building, aside from Main St. At this time Mr. Adams—I mean previous to 1858 and between the time we moved up on Main St. and 1858—done our work, either by the day or by the piece. Whether at that time we owned a portion of the machinery or not I cannot tell, but our work was done with the same turning-lathe and sawing machines we had — we used afterwards. The power was a small engine; he done our work for us with this; I can't tell how long. Whether he or we rented the building where he occupied I cannot tell. That engine was afterwards sold by Mr. Adams and is the one I alluded to when I said we may have exchanged engines, and then, after this time, we rented power of Gates, Breck & Herd, and Mr. Adams put in the same machinery that he had in the old shop, except the engine, and then *was* this engine I spoke of was put in our shop in 1858.

2941 Further hearing adjourned to the 23d day of Feb., 1880, at 9 o'clock a. m.

February 23d, 1880.—Parties met pursuant to adjournment.

Witness desires the notary to read the last question and answer, which was done, and says he wishes to state further in regard to it.

2942 Witness resumes:

Since the adjournment Saturday night I have thought more of the question—of the manner of power or the way our work was done by machinery or the power used in doing it. Since the time we moved up onto Main St. to the time of the close of the firm of C. & T. Buxton the time was about 20 years. Our work was done a part of the time by Mr. Adams in the
2943 building called the “Old Furnace.” From that, after that time, our
work was done by power that we rented of Breck, Gates & Herd; after that, in the year 1858, we moved our machinery into our shops on Main St., fitted up our shops, put in our machinery, and run there for several years in that way. Then, on reflection, I find that near the close of our Co. time we did exchange engines with Mr. Colligan, of Buffalo, for another engine, which, I think, was placed in the same place and used until the close of the Co. of C. & T. Buxton; that from the commencement of Mr. Adams doing our work to the close of our company the machinery used was owned a part by Mr. Adams and a part by our Co., with the exception of the time that we had power of Breck, Gates & Herd. At that time I can't say that Mr. Adams had any interest in the machinery, but he may have had; and where I stated that this was the only engine owned or used by us on Main St., in our buildings on Main St., I find now I was mistaken, in that in thinking it over I did suppose that the change was made after the firm of T. H. Buxton & Co. had commenced business.

X Q. 191. Have you examined any of your books kept in connection with your business when you were a partner of C. C. Buxton since we adjourned Saturday night?

A. I have.

2944 X Q. 192. What book was that?

A. It was a ledger kept by us in 1858.

X Q. 193. Any other book?

A. Yes, sir.

X Q. 194. What other book?

A. Cash-book kept by us at the same time—1858.

X Q. 195. Any other book besides these two?

A. I may have looked some other books over, like a day-book, but found nothing that I wanted.

X Q. 196. You found nothing, then, in the books that you mentioned in the last answer that you made that assisted you in any manner in making the explanation you have made this morning?

A. I did not find anything in the day-book.

X Q. 197. To what is the latest date of entry in either of the cash-book or ledger that you have referred to in your testimony? Tell me as near as you can.

A. I think I looked over Mr. Adams' account to the time he closed—1886, or about that time.

X Q. 198. In what book did that appear?

A. Ledger and cash-book; both.

X Q. 199. Did you find any entry in any of your books in relation to the purchasing of a second engine you testified to this morning?

A. I find on our cash-book where I paid Mr. Colligan, of Buffalo, in the spring of 1858, money to pay for engine bought by Mr. Adams; it may be by Adams & Fargo; can't say but what Fargo's name was in it or not; also in the fall of that year
2945 paid the same party money for the same purpose, and also for a plainer bought in Buffalo; it may have been Adams & Fargo.

X Q. 200. Question repeated. Will you please to answer the last question? I referred to the second engine, which question 199 plainly indicates.

A. I referred this morning to our engine used by Mr. Adams in the Old Furnace; second, the engine on Main St., purchased in 1858; third engine, the last we had; I don't know where we had it.

X Q. 201. Did you find any entry in the books you examined since our last adjournment in regard to the third engine, now spoken of?

A. I did not find any entry showing the time or where it was bought, but I did find that there — at which we changed engines; found this on looking over Mr. Adams' account, in finding that I then thought that we did change engines, and found some other facts, when, on seeing those facts, reminded me that we did change with Mr. Colligan.

X Q. 202. Will you please produce that book that you found the entry in referred to in your last answer, so that the counsel for the complainant may examine it?

A. I will.

X Q. 203. You now have your books, Mr. Buxton, that you referred to; will you please turn to the entries, point them out to the notary, so that he may copy just the words and figures you have referred to in giving your testimony?

2946 A. "I will," and witness then produces cash-books, commencing in 1855 and extending about to 1866, kept by C. & T. Buxton, down to Nov., 1868, and refers to page 179 and to the item or entry on that page in the words and figures following: "May 5, 1858, by F. Colligan, for engine for Adams & Fargo, $100.00;" also on same page the following item: "May 12, 1858, cash to Colligan, Buffalo, $280.00;" also refers to ledger marked on the cover, 1858, C. & T. Buxton, containing accounts from 1855 to 1861. The item referred to, or entry, is found on page 167, and is in the words and figures following: "July 25, 1859, by amount due Adams & Fargo, being (½) of amount cr. to each to balance, $78.02; by Adams' ac. to date from the 8th of May & Nov. 9, $95.85; by note, 300, Jan. 23, '56, $300.00; interest, 2 years 4 mos., up to May 23, '58, $49; interest as agreed on up to date, $18.29; 23, '59, amount due, $4.79." The page 167 is headed as follows: "Dr., H. E. Adams, cr." In same book witness also refers to page 176, which page is headed as follows: "1858, dr., Adams & Fargo, cr." The item is in words and figures following: May, 1859. Settled up this day with Adams & Fargo, and the wood is credited on, except $13.36; cr. amount agreed on is this; we have not counted anything for Benson, and this is sum deducted on lumber."

Further cross-examination of the witness postponed — 5 o'clock p. m.

2947 5 o'clock p. m.—Parties met pursuant to adjournment.

X Q. 204. Is there any charge in your ledger account against H. E. Adams or Adams & Fargo of the two amounts shown on your cash-book, 1858—May 5, by F. Colligan for engine per Adams & Fargo, $100; May 12, 1858, cash to Colligan, $200?

A. None that I can find.

X Q. 205. Will you turn to your ledger referred to in your testimony at page 167, and will you swear positively that any of the items in that account were used for paying for the engine purchased by Adams & Fargo, as you say?

A. I see nothing that makes me believe that any of the money I paid to Colligan is charged on this paper; I can't swear positively that any of the items there charged were used for that purpose.

X Q. 206. In answer to cross-question 199 you say: "I find on our cash-book where I paid Mr. Colligan, in the spring of 1858, money to pay for engine bought by Mr. Adams or Adams & Fargo; also, in the fall of that year, paid the same party money for the same purpose." Will you please turn to your cash-book or any other books kept by you and point out the items where you paid money to Mr. Colligan in the fall of that year, as you have testified?

A. I don't see it here—the full amount—but it may be here.

2948 X Q. 207. Will you swear positively that any such account as having been paid in the fall of the year appears on your books?

A. No, sir; I won't.

X Q. 208. What style and size of engine did you procure of Calligan, of Buffalo?

A. It was either six or eight-horse power. I think I called it eight horse power; he rates his engines higher than others, and may have called it a six horse power; it was a portable engine and known as a "Calligan engine," manufactured at Buffalo.

X Q. 209. What was the price of that engine?

A. My impressions are about six hundred dollars; but I am not sure of it.

X Q. 210. Give us, as near as you can, the date of the purchase of that last engine.

A. I think, as near as I can give, would be between 1862 & 1866.

2949 X Q. 211. Have you examined your books in order to find an entry that would enable you to find a date to fix the time of such purchase?

A. I have examined them, but I don't find anything referring to it by which I could tell the date.

X Q. 212. While you were engaged in business on Main street did you or your firm of C. & T. Buxton ever own an engine in company with H. E. Adams?

A. Yes, sir; I think we did.

X Q. 213. Will you swear positively that you did?

A. No, sir; I won't.

X Q. 214. Who purchased the first engine used in your shops on Main St.?

A. Adams & Fargo.

X Q. 215. What style of engine was that?

A. It was one of Mr. Callagan's, of Buffalo, portable engines.

X Q. 216. How many horse power would you call it?

A. I think I called it five or six horse power.

X Q. 217. Do you know the price of that engine?

A. I don't — that.

X Q. 218. What style of engine had Breck, Gates & Hurd in use at that time?

A. They used a very heavy engine of twenty-five or thirty horse power, with two or three boilers; the boilers were separate.

X Q. 219. Where did they obtain water from for the ordinary supply of their engine?

2950 A. 219. I think from a well dug under the engine, or near by it.

X Q. 220. How deep was their well?

A. I can't tell.

X Q. 221. The last engine that you referred to in your testimony that you purchased of Calligan was put in the same place in your shop that the one was that Adams & Fargo put in, was it not?

A. Very near where the old one was; put in substantially the same place.

X Q. 222. The building in which — the engine obtained from Calligan, testified to, fronts on Main street, coming to the sidewalk—fronting on the sidewalk?

A. It does, and Main St. runs north & south. The building goes east & west.

X Q. 223. Your smith shop spoken of on Main street is directly west of the building referred to in the last question containing the engine?

A. It is.

X Q. 224. What is the distance between these two buildings?

A. From thirty to forty feet; should say forty feet.

X Q. 225. Give me the size of the smith shop as it stood in 1858.

A. Twenty-four by forty or more feet.

X Q. 226. Which way was it longest?

A. East & west.

2951 X Q. 227. Give the size of the addition that you say was added to the smith's shop.

A. Twenty-four feet wide by twenty-four to thirty feet east & west.

X Q. 228. The first tube well testified to was put down west of the smith shop?

A. West of the first smith shop, before the addition was put on.

X Q. 229. You have testified that you used a lead pipe—might have — an iron pipe—from the engine first put in your shop on Main street to the race.

A. I don't remember of testifying that one went into the race—I mean a lead pipe. I don't remember a lead pipe being put from the engine into the race, but there may have been.

X Q. 230. Will you swear that a lead pipe was not used from the engine to the race? Please answer my question directly, yes or no.

A. I don't remember whether there was or not.

X Q. 231. Will you swear positively that you used an iron pipe from the pump used for pumping water from the barrels put down by the race, as testified to?

A. I can't swear positively; that is my best impression.

X Q. 232. Will you swear positively that you used an iron pipe in the dug well on your premises on Main St.?

A. No, sir.

X Q. 233. Please describe the gas tongs referred to in your testimony.

2952 A. 233. Tongs made so you could grab around an iron bar, so that you could hold it from turning, screw it around.

X Q. 234. Will you swear positively that the barrels sunk by the race were put down in 1858? Please answer my question directly, yes or no.

A. That's my best impression; I can't say positively, but I think they were; that's the best I can say.

X Q. 235. Did my last question call for what you thought or for your positive knowledge?

A. Positive knowledge.

X Q. 236. Will you swear positively to any one year that the tub or cistern was put down west of your smith shop?

A. No, sir.

X Q. 237. Will you swear positively to any one year that the well was put down by West?

A. No, sir.

X Q. 238. Will you swear positively to any one year that
2953 the first tube well was put down that you referred to; will you swear positively to any one year?

A. I am positive that it was put down in the year of 1858.

X Q. 239. In answer to question 66 you said: " I think it was put down in the spring of 1858; that is my best recollection," in referring to this well. From your examinations of any books or memoranda since giving that testimony have you found anything that enables you to swear more positively? Please answer directly.

A. I have; in looking over the cash accounts I have had here to-day, and the other references I have testified to, I feel more certain than I did that I put down the well in that year. In looking over I feel more certain than I did before that I am correct.

Further examination postponed until Febr'y 24th, 1880, at 9 o'c. a. m.

FEB. 26TH—4 o'clock p. m.

Cross-examination of T. H. BUXTON resumed by Mr. ANDREWS:

X Q. 240. You were asked, Mr. Buxton, on the direct if you knew Nelson W. Green; will you please state what you knew of him and the date when?

2954 A. 240. In, I should think previous to, 1860—it might have been either of those years—Frank Green, a brother, and this one use- to be here on a visit. They called it this one. Personally I had no acquaintance with him. They used to be here to Mrs. Windsor's, his sister's.

X Q. 241. And is this all that you know of or about him?

A. I have heard say that he was here with Mr. Doolittle, and can't say but that he was in his office here. I had heard, but personally can't say.

X Q. 242. Question repeated. Please answer directly.

A. I said then I didn't know; personally it is.

X Q. 243. Now, I ask you whether you have heard of him as the inventor and patentee of the driven well, and when you first so heard of him?

A. To the first part of the question I answer, I have, but the time I can't tell.

X Q. 244. After the time when you put down the well you have testified of, as you say, in 1858, when did you next know of a similar well being put down?

A. I don't remember of seeing any put down till our own, the second one that was put down, but I might have heard of others that were being put down.

X Q. 245. Are you now able to state at what date the last well you have referred to was put down?

A. I am not.

X Q. 246. How near can you give the date?

A. My impression, it would be two or three years; maybe longer.

2955 X Q. 247. You are unable to give any nearer approximation to that time, are you?

A. I am.

X Q. 248. In answer to direct question 19 you stated that a part of the time you used water from a reservoir. What use did you make of the water from that reservoir?

A. Setting tires. Sometimes it might be taken to the shop, when the wells gave out or anything happened to the pumps.

X Q. 249. How did you use the water in the reservoir in setting tires?

A. We would dip it out with pails and — on it to set tire, and would sometimes put the wheel right into the cistern.

X Q. 250. In answer to direct question 20 you said that you put in an engine in co. with H. E. Adams, and in answer to direct question 21 that you think that you afterwards put in a new engine; am not sure but you had this one repaired, and in answer to direct question 22, when asked what year was this, you answered, In the summer of 1858. Is that statement correct?

A. Correct as far as the first engine—the first engine we put in—is concerned; that was put in in 1858.

X Q. 251. Then do I understand you that it is not correct as to the new engine or the old one being repaired, as you have stated on your direct?

2956 A. 251. I answered that question at the time with the understanding it had reference to the first engine put in. I think afterwards I answered in relation to them repairs in another question or when another engine was put in.

X Q. 252. That is not responsive to the question. Question repeated.

A. That is as good an answer as I can make to it.

X Q. 253. In answer to X question 250 just now you say the statement in answer to the questions quoted from was correct, as far as the first engine we put in was concerned; is it true, that answer, in regard to the remaining portion of the statement contained in those answers?

A. That it is not true in relation to the repairs on engine afterwards, as I did not understand that I was required to answer in regard to repairing or putting in our last engine, as it is apparent they could not all — been done at the same time.

X Q. 254. Had you not previously testified that the first engine was put in soon after you moved on Main St., which time of moving you gave as between '42 & 1845?

A. I did.

2957 X Q. 255. Then was it apparent from that testimony as given by you, all taken in connection, and not by selecting a single answer to a question which you did not understand, that those repairs or exchange did not take place in 1858, as you answered they did in reply to direct question 22? Please answer directly, yes or no?

A. 255. I have answered that question once or twice, and explained the whole matter in regard to those engines. I stated I think this first engine was put in in 1858, and the repairs, or the new engine that I mentioned, was done afterwards.

X Q. 256. Were you or were you not mistaken when you answered the direct questions which have just been alluded to and a portion of them quoted?

A. I explained that whole matter after I had examined my books at your request.

X Q. 257. Question 256 repeated. I ask the witness to answer yes or no?

A. I have given all the answer I can give him.

X Q. 258. Do you refuse to answer that question yes or no.

A. I have answered the question after looking at my books, at your request, and explained the whole matter to you.

2958 X Q. 259. Can you now, Mr. Buxton, after having had several days in which to reflect and recall these bygone circumstances, give us the date when these repairs or the replacing the old by a new engine took place?

A. I can. After Mr. Andrews and the other gentleman were at my home they requested me to look over my books and see if I could get anything from them that would give me any more light on the subject. I find instances on my book where I think, from these facts, the engine was thoroughly repaired—that is, the engine I put in there first in '58, in '63, or '64; and that, from a charge on the books of T. H. Buxton & Co., I find enough to satisfy me that the other engine, the last one, was put in in 1869.

X Q. 260. Was Mr. H. E. Adams interested with you in the ownership of the engine at the time it was repaired?

A. He was running the engine, as formerly, and may have owned the whole of it or — in a part of it. I can't say.

2959 X Q. 261. Can you say whether Mr. Adams was interested in the new engine put in in 1869?

A. I find on the books of T. H. Buxton & Co. where he is charged with one-half of freight on engine; that, I think, is in July, 1869. From that fact I suppose he owned half of it.

X Q. 262. You have stated that part of the time you had two, & part of the time three, buildings that you used as shops. Which of the three was the last to be occupied?

A. I am not aware of being asked how many shops we occupied, or that we occupied three shops; of stating that we occupied three shops; still I might.

X Q. 263. Did you a part of the time occupy two, & a part of the time three, shops?

A. We did, including the place where we had our work done by machinery.

X Q. 264. What place was this where you had work done by machinery?

A. At Breck, Gates and & Hurd's we had a room. It may at that time have been Gates & Hurd; the company changed once; it was in the same place.

X Q. 265. Who occupied that room and what work was done in it?

A. A certain portion of the work was done by Mr. Adams, and he occupied the room—sawing, turning, getting out materials

2960 for wagons & carriages; other men in our employ may have worked in the room helping him or doing other work.

X Q. 266. Then the use of this room by Mr. Adams was not an occupancy of the building, was it?

A. We did not occupy all of the building; we had a room and took power from their engine to run our machinery.

X Q. 267. What machinery had you in there and what proportion of the building did you occupy?

A. We had the machinery that we used for the manufacturing stock for our purposes, such as sawing, turning, boring, and such like; I cannot tell what portion of the building we occupied; it was a large one, and we had what room we needed for that purpose.

X Q. 268. Did you occupy as much as one-fourth of that building?

A. I shouldn't think we did.

X Q. 269. How many stories to that building?

A. I don't remember the construction of the building enough to describe it.

X Q. 270. What was it used for other than the use you made of it?

A. General manufacture of lumber—planing and sawing. At one time they had a saw-mill in this; had machinery suitable for putting up their own machinery and making their own machinery, such machinery as they used, Mr. Hurd, himself, being a machinist regular.

2961 X Q. 271. Who owned the machinery in the room where Mr. Adams worked?

A. The machines that we used there, a part of them, belonged to us and a part to Adams; the shafting and bands that were used belonged to Buck, Gates and Herd; I don't know, but that is my impression; it may be we owned all the machinery that we used there; I can't tell whether we owned it all or not; we had *a* lathe-sawing machines, boring machines, tenenting machines — such other as we may have for cutting up lumber for our purposes.

X Q. 272. Was this building in which Mr. Adams occupied this room the same building in which Mr. Benson had the lathe which he afterwards removed into your shop?

A. I think it was.

X Q. 273. Do you not know that it was?

A. I am very sure it was.

X Q. 274. Did he there use any other lathes than the one afterwards moved into your shop?

A. I cannot tell.

X Q. 275. Can you give the month and year when that lathe was moved from that building into your shop?

A. The latter part of '58, it was near; can't give the month; I think I stated two or three months before I commenced charging them rent, which would be in the fall of '58; perhaps October or Nov.;
2962 perhaps as early as September.

Further cross-examination of this witness adjourned to Feb'y 27, at 10 o'clock a. m.

Feb'y 27—10 o'clock a. m.

Parties met pursuant to adjournment and cross-examination of Mr. Buxton continued by Mr. Andrews:

X Q. 276. How long is it since you ceased to manufacture carriages and lumber wagons in the shops on Main St.?

A. Last fall.

X Q. 277. How long did you continue to use the wooden pump in the dug well, and can you give the date when it was put in? And, if so, please give it.

A. I can't tell when it was either put in or how long used.

X Q. 278. How long was the crowbar that was used in making the hole in the ground into which you put the first tube, as you have testified, in 1858?

A. I don't remember how long it was.

X Q. 279. Give us your best idea in regard to it, whether it was 3 or 10 feet long or if it ranged anywhere between those lengths.

2963 A. I don't remember anything about the length of it. It may have been a common bar 4 or 5 ft. long*er*.

X Q. 280. Was that bar expressly prepared for the purpose?

A. I don't remember. It might have been a common bar, and it might have been one prepared for them.

X Q. 281. Then when you testified heretofore, in answer to direct question 29, that it was a common iron bar you may have been mistaken, may you not?

A. No; I testified then that it was a common bar, and think *I* was now, but it may have been made for the purpose.

X Q. 282. Then if it was not a common crowbar, but was made on purpose, then you did make a mistake in answering direct question 29, did you not?

A. No, sir; I testified that it was a common bar, but may have been made on purpose.

X Q. 283. Did you, in answer to question 29, testify as you have stated in your last answer?

A. I suppose I testified it was a common bar. That is my recollection now.

X Q. 284. Did you see the hole being made by this bar for inserting the tube, as you have testified? Will you testify positively that you did?

A. I presume I did.

2964 X Q. 285. Will you testify positively that you did?

A. Yes, positively, when it was being made or after it was made.

X Q. 286. Question repeated.

A. No; not that I see it making, but it was my best impression that I did, but I am not positive.

X Q. 287. Can you tell us who used the bar in making that hole?

A. No, sir.

X Q. 288. Did you hear any jocular or vulgar remarks made in relation to that bar and its peculiarities by men or boys who were there, standing about at the time?

A. I did hear laughing and joking about the pipe as I came in or went out; that the boss had got catched once; that his pipe would be full of dirt before he got it drove, and he did not believe he would get much water; they were laughing & joking about that—the pipe; there may have been—about the bar; I don't remember of hearing the bar spoken of.

X Q. 289. You say you may have heard laughing and joking as you came in or went out. As you came in or went out where?

A. I presume I passed in and out from one shop to the other several times while we were getting the pipe ready and putting it in.

2965 X Q. 290. And do you mean that you heard those remarks while passing from one shop to the other?

A. I presume I heard as passing from where we were putting in the well outside to the blacksmith shop, or from the blacksmith shop to the well. I know there was a good deal of joking and laughing between the hands about it.

X Q. 291. Then it was not while you were passing from shop to shop, as indicated in question 289?

A. I presume it was; the same remarks and laughter were going on while I was passing from one shop to the other; the shops were so near together we could hear them.

X Q. 292. Were the doors of the shop open and kept open?

A. I presume they were through the day; might have been closed; we mostly kept the doors open in smith shops at such times when weather was warm.

X Q. 293. What month was this in which the doors were so kept open when you were making the well?

A. My impressions are it was in July or may have been as late as September; it might have been earlier, even in June.

X Q. 294. Had Mr. Adams moved into your shop when he turned the wooden plug for this well?

A. I think he had.

2966 X Q. 295. Can you not answer that question directly yes or no?

A. I cannot.

X Q. 296. Then you do not know whether that plug was turned in your own shop or at the shop of Buck, Gates & Herd, do you?

A. I am very confident it was turned there in our shop, as positive as I can be in most things, as I think our machinery had been running 2 or 3 months previous to this turning of the plug and making of the well.

X Q. 297. Was Mr. Benson running the iron lathe of which you have spoken in your shop at the time this driven well was made?

A. I cannot tell the time he first commenced work in our shop; the rent did not commence for him until the latter part of 1858, but my impressions are he moved in several months before we charged him with rent.

X Q. 298. In answer to direct question 32, which was in regard to cutting screws upon pipe, you were asked if you had men and machinery in your shop for doing such work, and in answer to cross-question you said you had reference to a lathe which was run by Mr. Benson in your shop as being the machine for cutting 2967 screws on such pipe. Now, was that lathe in your shop at the time that this well was made?

A. I think I testified before that it was there in our shop, but if it was not there it was in the other shop where we had our work done, as Mr. Benson done our work in the other shop until he moved in the one overhead.

X Q. 299. Then, if I understand you correctly, you do not know whether you did have the machinery in your shop at that time for doing that work; am I correct?

A. It's my impression we did have it, but if we didn't have 2968 it we speak of the other shop just as though it was in our building; if a person had asked us if we could do such kind of work, previous to his moving there, I should have said we could, as he done our work the same before as after he moved into our shop.

X Q. 300. Is it your best belief, Mr. Buxton, that that lathe was in your shop at the time of making this well?

A. That is my opinion that it was there, but it might not.

X Q. 301. Can not you recollect whether that pipe was cut in your own shop or sent over to the Buck shop?

A. I cannot.

X Q. 302. Who did the mason work when your brick smith shop was extended?

A. I don't know.

X Q. 303. How near can you fix the date of that extension?

A. I have no distinct recollection when it was done, and I don't find anything on my books to show when it was done.

X Q. 304. In what month were the repairs made upon your engine, as you yesterday stated, in 1863 & 1864?

A. I don't remember the month or the year distinct about it.

X Q. 305. Is there no entry on your book to which you yes- 2969 terday referred that will enable you to fix that date?

A. In looking over my books I saw somewhere a charge indicating that in one of those years—the year of 1863 or 1864—repairs were done. I don't remember now what book it was in.

X Q. 306. In answer to direct question 57—, "The first driven well was probably outside," and in answer to direct question 45 you say, "I think the place was built over." Can you be any more certain than as you have stated in answer to those questions?

A. I am very sure it was on the outside now.

X Q. 307. Will you now swear positively that it was?

A. I am so positive I have no doubt of it.

X Q. 308. Question repeated. Please answer directly yes or no.

A. I have answered all I can. I am as positive — I have no doubt of it.

X Q. 309. Question repeated. I wish an answer to my question, whether you will swear positively that it was outside?

A. I have answered the question the best I can. I have no doubt but what it was outside.

X Q. 310. Do you refuse to swear positively that it was?

A. I have sworn that it was on the outside; I have no doubt
about it. I am as positive as I could be that it was on the
2970 outside. That is the best answer I can give you.

X Q. 311. Question repeated.

A. I have given my answer before to that question.

X Q. 312. And do you refuse to give any other answer?

A. I will say as I have before, I have answered the question the best I can.

X Q. 313. And do you refuse to give any other answer?

A. I have given all the answer I can.

X Q. 314. Then do you refuse to give any other answer?

A. I have no other answer to make.

X Q. 315. In answer to direct question 25, which was, How many different buildings were occupied by you then as shops? you answered, "A part of the time two and afterwards three." Then what was the third building you there referred to?

A. The first two building- were our wood & blacksmith shop. Then we occupied a room in Messrs. Buck, Gates, & Herd. Then some time we built a show-room to put work into to show. The room in the brick shop was the third shop I referred to.

X Q. 316. And was that occupied after and since you occupied the other two?

A. I think we occupied that in 1857; previous to that we used our wood & smith shop.

X Q. 317. Then afterwards you did not occupy three shops?

A. After that we had a show-room; whether we built it before or
afterwards I can't say—a store-room for showing work. It
2971 has since been used for a work shop.

X Q. 317. Which of these buildings did you refer to in answer to direct question 25 as the third shop?

A. The brick shop was the one I had reference to as the *as the* third one.

X Q. 319. In answer to direct question 48 you say, "The first pipe may or may not have been put down again." In answer to direct question 49 you say, "The same well just spoken — was again put down." Which of those answers is correct?

A. The *that* same kind of a well was put down, I meant.

X Q. 320. Your answer to question 49 was that this same well just spoken of was put down again. Is that answer correct?

A. I meant the same kind of a well. I don't mean that the same pipe was used. I had answered that I didn't know whether the same pipe was used.

X Q. 321. Was either the same pipe, the same hole, or same pump used in the second well?

A. We may have used the same pump or same pipe. I meant the same kind of well. I don't know that we used the same pump or the same pipe, but I know we didn't use the same hole.

X Q. 322. Have you or any member of your firm ever paid a roy-
alty to Col. Green, to his agent, Lockwood Thyer, or to any
2972 one, for the use of a driven well for yourself, individually,
or for any firm of which you were a member?

A. I have no recollection of paying anybody for anything about a well, excepting John West. I paid John West for putting down the second well; don't remember that there was anything said about a royalty about it; can't say but he did. I don't remember of paying to anybody else, or don't remember any one of our firm doing it, but still it might have been done.

An adjournment to March 25, 1880, 10 o'clock a. m., was here taken by consent.

2973 March 25th 1880.—Parties appeared pursuant to adjournment, and the further cross-examination of this witness, Timothy H. Buxton, reserved until April 2nd.

April 2d.—Parties met.

Cross-examination continued by Mr. HURLBUT:

X Q. 323. Have you examined your testimony since you were examined in February?

A. I have.

X Q. 324. From what record of evidence?

A. I looked it all through.

2974 X Q. 325. Question repeated and witness requested to pay strict attention to same so as to be able to give intelligent answer.

A. The record kept by Mr. Bartlett.

X Q. 326. What Mr. Bartlett?

A. C. T. Bartlett, defendant's counsel.

X Q. 327. Have you had any other evidence beside that kept by Mr. Bartlett—C. T. Bartlett—that in his handwriting?

A. No.

X Q. 328. Haven't you had a copy of the evidence taken by me?

A. I have had a copy; that is what I looked over.

X Q. 329. Who made that copy?

A. The young man in Farman's office; Mr. Wells, I think it was.

X Q. 330. Didn't you request him to make it?

A. I did.

X Q. 331. Have you requested a survey to be made of your premises where your shops are located?

A. I have had one made.

X Q. 332. Question repeated.

A. I can't answer it more than I have. I went with a party and made the survey.

X Q 333 missed — numbering.

X Q. 332. Do you pretend to say, Mr. Buxton, before this notary, on oath, that you can't tell whether you requested a survey to be made of those premises? Answer directly.

A. I got a man to go with me.

X Q. 333. Question repeated. Your answer is entirely irresponsive.

2975 A. I requested a man to go with me and make a survey.

X Q. 334. Did you agree to pay for the making of that survey and a copy of that testimony?

A. I did.

X Q. 335. How much?

A. I don't know how much he said he should charge—5 or 6 cents a folio. I told him I would see that he had his pay for it.

X Q. 336*a*. Did you request this copy to be made in copying ink, so that pressed copies could be taken from it?

A. I did; requested it to be made in copying ink.

2976 X Q. 337*a*. Why did you request it to be made in copying ink?

A. So, if I chose, I could keep a copy myself, to look over.

X Q. 338. And what do with the other copy?

A. Keep it for anything. I know I have no other use for it; so I could see it for myself at any time.

X Q. 339. Have you had a pressed copy taken from any of it yet?

A. I have taken most of it on my copy-book.

X Q. 340. Do you mean to be understood as testifying that you got this copy made, agreeing to pay 5 cents a folio, and having taken a pressed copy of nearly all of it, and had no other object in view in making this pressed copy, except that you might have two copies for your own use?

A. I had the copy taken from the fact that I wanted to look over the evidence and I couldn't read Mr. Bartlett's. I had no other object, except to see it. I wanted to correct —. I took Mr. Bartlett's testimony; I couldn't read it, so I had the copy made.

X Q. 341. (Question repeated.) My question relates to the pressed copy.

A. To have a copy on file in my copy-book.

X Q. 342. Are you a man of considerable means?

2977 A. I am not.

X Q. 343. Isn't it true, Mr. Buxton, that you are insolvent?

2978 A. I don't think I can say that. I hope to be able to pay every dollar I owe in the world, but since I have been sick I haven't been able to pay every man as they called on me.

X Q. 344. You have spoken of being sick, and I have observed that you have been in considerable ill health during this examination. Will you please describe the nature or cause of your ill health, the extent, and just how you are affected by reason of it?

A. I cannot tell the cause. The first attack, 3 years ago last December, was a nervous prostration, a neuralgia inflam-ation of kidney & bowels, cold chills, severe hemorr-age of the bowels. That hemorr-age and cold chills have kept up to now at spells from 3 to six months apart. Hemorr-age would keep up from four to six weeks at a time—about a quart of blood a day. Last September I was attacked again, which lasted about five weeks. I was not able to leave my room and bed until the first of January. Since that time the first I got out to remain any length of time was when you had your last examination. Since that examination I have had two light attacks of hemorr-age which have kept me in mostly until to-day. I was able to endure more at your examination than 2979 any time within three years. Since my first attack I have had to take remedies to relieve my pain as often as every twelve hours—to relieve me of my pain in my side—for nearly the whole three years. The pain has been in my left side, limbs, back, bowels, and kidneys. Sometime the pain has been so intense as to require very strong remedies to relieve me from pain, particularly when I have had hemorr-age and chills. This hemorr-age has reduced me very low—very weak.

X Q. 345. Have you been able, from reference to your books, to fix the date, since our last adjournment, that the extension or addition was put onto the smith shop?

A. I have not.

X Q. 346. Was that extension brick?

A. It was.

X Q. 347. Who put on the extension?

A. I am not able to tell. I can give you my impression, that is all.

X Q. 348. Was the mortar for it made on the premises?

A. I think so—don't know.

X Q. 349. Have you any present recollection as to that?

A. I have an opinion.

X Q. 350. Question repeated.

A. I have not.

2980 X Q. 351. How long before ground was broken for that extension was it before this driven well was taken up or was it used in the construction of that addition?

A. Can't tell.

X Q. 352. How long was it after the completion of that extension that this second well testified to was put down?

A. My impression — soon after; I can't tell the time.

X Q. 353. Mr. Buxton, will you please refrain from stating your impression; I am asking you for your present recollection; have you any present recollection of the time?

A. I should say soon after the addition was put on.

X Q. 354. Your answer is entirely irresponsive to my question. Will you please pay attention to my question and give a responsive answer? Question repeated.

A. I have.

X Q. 355. Give me that time from your present recollection.

A. Soon after the addition was put up.

X Q. 356. When you say soon after give me the time you mean, in weeks, months, or days, from your present recollection.

A. I can't give the exact time.

2981 X Q. 357. Give me what your present recollection of the time is.

A. It may be a month or more or less.

X Q. 358. Will you swear positively that it was not more than a year? Please answer directly.

A. No, sir; I can't tell any nearer than I have told.

X Q. 359. Will you swear positively that it wasn't more than two years?

A. I have given you that testimony as near as I can; I can't be positive about it at all.

X Q. 360. Will you swear positively that between the years 1860 and 1866 that you did not have a driven well on those premises for at least two years and a half?

A. I think there was not a time from 1858 to 1867 that we did not have a drive well there.

X Q. 361. I asked you a question that admitted of an answer, yes or no, and will you be kind enough to observe the rules of an examination enough to answer my question as it should be. Question repeated.

2982 A. I have given you that testimony to the best of my knowledge and judgment; I can't do any better.

X Q. 362. Do you refuse to answer that question directly, yes or no?

A. I can't give you any better answer than I have given you. I have said from '58 to '66 there wasn't a year that we didn't have a drive well; that is my recollection—my best recollection.

X Q. 363. I asked you if you refused to answer that question by yes or no. Please state whether you so refuse.

A. I have given you all the answer I can. I can't say yes positive, or no positive.

X Q. 364. Is that all the answer you will give?

A. That is all I have got to say to that question.

X Q. 365. Original bill of complainants, Exhibit No. 1, Warsaw, N. Y., shown witness and witness is asked if the indorsement appearing upon the back thereof is the words and figures following is in his handwriting: "1880, driven well, Colligan, bill for repairs on engine to H. P. Adams." Please answer directly.

A. That is my handwriting.

X Q. 366. State the time that you made it then.

2983 A. Since the adjournment in February.

X Q. 367. Where did you get that bill at that time—from whom, if any one?

A. From Mr. Adams, I think; H. E. Adams.

X Q. 368. He has been a witness in this case, has he not?

A. He has.

X Q. 369. Did you request him to bring it to you?

A. I don't remember whether I did or not. He might have brought it of his own accord, and I might have requested him. I can't say.

X Q. 370. You have testified that the water in the first driven well was not fit to drink. How was it with the one put down in the shop?

A. There wasn't either of them fit to drink until the dirt and stuff in the pipe had been pumped out.

A recess was here taken until 4 o'clock p. m.

At 4 o'clock p. m. parties met pursuant to agreement.

The witness here further answers to last-above question: The hands washed right by the well and the water and slop soaked into the ground and the hands spleened against it.

2984 X Q. 371. I have not asked you one word in regard to why that water was bad; I asked you simply if the water was bad in the second drive well. Now, will you please to confine your answer by stating whether it was bad or not, without stating any reasons why it was bad?

A. I think the water was bad to drink.

X Q. 372. For how long a time was the water bad to drink in the second driven well testified to?

A. I think it was bad all the time, although there might have been times it was drank — used.

X Q. 373. Would you make the same answer in regard to the first driven well?

A. I think I would; the first well being out doors, it may have been at spells better than the other.

X Q. 374. And the cause of the water being bad was from the fact that the men washed their hands there and the water soaked into the ground there, and they spleened about drinking it. Is that true?

A. That was a part; that horses, also, stood about there or watered them was an additional.

2985 X Q. 375. And for that reason the well was not used much for drinking purposes, was it?

A. That was the fact.

X Q. 376. You have testified that you wouldn't swear positively that Mr. Benson did not own that lathe, for the reason that he was embarrassed, you supposed, as you heard; and, on reflection, ain't you able to swear positively that he owned it?

A. I found nothing new that changed my opinion about it.

X Q. 377. Did you ever own that lathe or your firm?

A. I have no recollection of owning it.

X Q. 378. Didn't you take a chat*tle* mortgage or your firm on that lathe in 1858 or '9?

A. I can't tell; have no recollection of it.

X Q. 379. And didn't you afterwards sell it to Mr. Herd?

A. I don't remember anything of the kind.

X Q. 380. Of your own personal knowledge, do you know whether any wells were put down like the one that you say was put down in 1858, from seeing that one?

A. We put down the second one from that.

2986 X Q. 381. Haven't you testified that you employed Mr. West to put down the second one?

A. I have; but it was put down under my direction just as much as the first one was, only he done the work instead of the hands.

X Q. 382. Will you swear positively that you gave a single direction to Mr. West, except to tell him the time and place that you wanted that well put down?

A. I told him what I wanted and where to put it; I can't say that I gave all the minutia- about it—every particular little thing.

X Q. 383. Question repeated and witness requested to answer it, yes or no, from his own present recollection.

A. I have a present recollection that I directed what I wanted done; it was done just as I directed.

X Q. 384. Do you refuse to answer my question by yes or no?

A. I think I gave him all the directions.

X Q. 385. You say you think you gave him all the directions. Will you swear to it positively?

A. I will swear to it—that that is my impression now.

2987 X Q. 386. Question repeated.

A. My present recollection is that I did, positively.

X Q. 387. You say, from your own personal knowledge, you put down the second well from seeing the first. Will you swear of your own personal knowledge that any other well than this second one was put down from seeing that?

A. I don't remember of any; that is my present recollection now.

X Q. 388. Don't you know that there were several driven wells put down in this place just prior—I mean within a few months from the time that West put down that one for you?

A. My impressions are now that there were several wells put down in our place previous to the second well we had put down, but whether they were put down from the fact of seeing one I can't tell.

X Q. 389. And isn't your recollection that they were put down just a few months before that second well was put down?

A. It is not my recollection that they were put down a few months before; I think they were put down two years before.

2988 X Q. 390. Can you name a person that had a well put down two years before?

A. I think the well was put down here in the street two years previous to that. I can't tell the person's name.

X Q. 391. What street?

A. Main street.

X Q. 392. To obtain water for what place or purpose, as you now recollect?

A. The well I had reference to was put down in front of the livery stable. Whether it was put down to obtain water for that place I don't know. It was put down by two men who came here and exhibited.

X Q. 393. Is it not your present recollection—I mean can't you now testify distinctly of any driven well being put down in this place or anywhere else between the time that you put down yours, in 1858, as testified to, and the one you recollect there by the livery stable?

A. I don't remember of any well.

X Q. 394. What became of the crowbar used in putting down the first well, if you know?

A. I don't know what became of it.

2989 X Q. 395. In answer to cross-question 305 you say that in looking over your book you saw somewhere a charge indicating that in one of those years, referring to 1863 & 1864, those repairs were made to the engine; will you produce that book, that the charge referred to may be copied by the notary?

A. I took that from Mr. Calligan's bill to Mr. Adams.

The cross-examination of this witness is here concluded.

By C. T. Bartlett:

R. D. Q. 1. Mr. Buxton, you were asked if you had a survey of your premises out there made, and you answered in substance that you had; now, why did you have that survey made?

A. I had it made on the suggestion of Mr. Andrews and Mr. Hurlbut to look over my books and papers, anything that would refresh my memory and make me more definite in my answers, anything that would give any light on the questions which I had 2990 answered according to my judgment or opinion; he wanted to have me precise on that point. I had been asked the distance from the shop to the reservoir, and how far those wells were apart, the distance between the shops, and several other questions that I could not be definite about; for that reason I had their measurements made, so that I could be more definite.

R. D. Q. 2. Who assisted you in making it?

A. Mr. McClure.

R. D. Q. 3. You were asked in reference to having examined your evidence since the adjournment in February and about having a copy made. Why did you examine your evidence and have this copy made?

A. I done it for the purpose of seeing if there were any mistakes in answers; to see whether I wanted to correct it any, and that I had Mr. Bartlett's minutes at that time; I could not understand — read his minutes. I told Mr. Bartlett then that I would 2991 have to have a copy to look over and see, and as I was not able to read them I got them copied. I told the person that made it he would have to wait for his pay until they paid the witnesses. I told him I would see that he got it. In regard to having it copied with copying ink, I supposed, of course, that the defendant would want that copy, and I wanted a copy myself so I could refer to it.

An adjournment was here taken to April 3rd, 9 o'clock a. m.

April 3rd, 1880.—Parties met pursuant to adjournment.

R. D. Q. 4. Mr. Buxton, can you tell about how long this drive well had been in use on your premises when the addition to your shop was put up?

A. I cannot.

R. D. Q. 5. About how many years had it been in use? Give *as* your best recollection.

A. My present recollection is it might have been 5 or 6 years; maybe more.

R. D. Q. 6. Can you tell about how long the Adams and Fargo engine was operated before it was repaired by Colligan?

2992 A. About 6 years, I take it for granted, to the time it was repaired, is by that bill Mr. Adams had in 1864.

R. D. Q. 7. Who paid for the repairs mentioned in the bill of Colligan's shown to you yesterday, Complainants' Exhibit No. 1, Warsaw, N. Y., and of which you testified as having made some memorandum or endorsement on the back?

A. I am not certain whether I paid it or not.

R. D. Q. 8. How long had the first driven well on your premises been in operation when these repairs on the Adams & Fargo engine were made by Colligan?

A. Six years, perhaps.

R. D. Q. 9. Mr. Buxton, have you a distinct recollection of the repairs being made independent of that bill of Colligan's?

A. I have a recollection.

R. D. Q. 10. Are you able to tell from your recollection independent of the bill the time of the repairs?

A. I do recollect nearly the time; I think I testified in 1863 or 1864.

R. D. Q. 11. Question repeated.

A. I am nearly.

2993 R. D. Q. 12. When did you see this Colligan bill first, as you recollect?

A. I presume I saw it when it was made; right after it was made.

R. D. Q. 13. Have you seen it since; and, if so, when?

A. I have, since the last adjournment, and yesterday I saw it again.

R. D. Q. 14. You stated yesterday, in response to a question on your cross-examination, that certain figures and words to which your attention was then called on the back of the Colligan bill were made by you? Why did you make them, and when?

A. I made them for my own convenience, so that I could file*d* it so I could refer to it when anybody wanted it; the time was some days after the last adjournment, in February, when I received it and made the entry on it.

R. D. Q. 15. You stated that you thought the water in both of these drive wells was bad to drink; did the water differ in color from the water in ordinary wells or in taste? If so, state the difference in color and taste; and, if not, state so.

2994 A. There was difference in color; it was a reddish color, and appeared dirty; I think it tasted like roily water; I mean by this that unless you pumped a great deal out it appeared and tasted so.

R. D. Q. 16. How long was this difference in color apparent after you commenced pumping; how long did it keep up?

A. It would differ*ed* at times, according to how much we had pumped previously to this; sometimes we would not see a change for as much as half a day; other times it would be less than that.

R. D. Q. 17. When this well was in daily use was this difference in color observable?

A. It was.

R. D. Q. 18. How was it about the taste; was that observable?

A. It was.

R. D. Q. 19. You spoke about the water and the slops being thrown upon the ground there; did you attribute to that the difference in the color and taste?

A. In part the pipe would be rusty sometimes; I think
2995 that was part the trouble in coloring the water.

R. D. Q. 20. Had this been a place before this well was put down where you were in the habit of hitching horses around the shop?

A. Horses stood about the well to be watered; might not have been hitched there?

R. D. Q. 21. What was the character of the ground right around the well?

A. What we should call a loose soil—loom on top and gravel under.

R. D. Q. 22. Was this pipe driven down into the solid ground there?

A. With the exception of the hole made by the bar, it was.

R. D. Q. 23. How was that bar used in making the hole in the ground into which the pipe was driven?

A. By a man taking hold of the bar and *and* jam-ing it down as far — he conveniently could.

R. D. Q. 24. Was the crowbar used in punching that hole any different from the crowbar in ordinary use at those times? If so, state in what particular.

A. I think it was a common crowbar used in those times.

2996 R. D. Q. 25. Were there different sizes of crowbars in use at those times?

A. There was.

R. D. Q. 26. So — cannot tell us about your employment of West in putting down this second well?

A. I employed him to put it down; told him what I wanted.

R. D. Q. 27. In your answer to cross-question 12 you say you think you used in your hardware business here the Hawley pump and the Seneca Falls pump and some other. Did you purchase pumps where you purchased other hardware or of the manufacturers, or of both?

A. My recollections are that we purchased of the manufacturers and of thoes we got our other hardware of.

R. D. Q. 28. Do you recollect whether this Hawley Company of Locksport were manufacturing pumps at the time you were in the hardware trade?

A. My recollections are that they were; they might not have been.

R. D. Q. 29. Can you tell how long that company have been manufacturing pumps?

A. I cannot.

2997 R. D. Q. 30. On your cross-examination you were asked if the pump attached to this well was either a pitcher spout or a force pump. Was this pump used upon this driven well such a pump as is now known as a force pump, or was it not?

A. It was not a force pump. I don't know what they call a pitcher-spout pump.

R. D. Q. 31. You were requested in cross-question 103 to produce the books to which you had referred, and you produced the book and pointed out an entry which was copied by the notary. Whose name appeared at the head of the page, and to whom did that entry refer?

A. Elihu Benson, as I understand.

R. D. Q. 32. Did Elihu Benson, to whom that entry refers, rent a room in your shop or have a room?

A. He did.

R. D. Q. 33. Do you remember the fact of his renting a shop of you at that time independent of your books?

A. I remember renting him a room in our shop.

R. D. Q. 34. For some time previous to Benson's moving a lathe into your shop where did you have your work requiring the use of power done?

A. In the shop of Breck, Gates and Hurd.

R. D. Q. 35. You say you sunk down a barrel some*time* by the race. Now, how far from or near the race was this barrel?

A. Four feet; it might have been more.

2998 R. D. Q. 36. You stated that a pipe run down into this barrel, on the top of which was a pump. Now, what was the distance from that pump to the bottom of the barrel?

A. Some 10 feet, I should think.

R. D. Q. 37. Was the upper end of this barrel open or covered?

A. The head was in and *a* holes bored in the head, several of them, perhaps, an in*in*ch or an inch *or* a half.

R. D. Q. 38. How did the top of this barrel correspond with the top of the race? Was it above or below?

A. The top of the barrel was as low as the bottom of the race or a little lower.

R. D. Q. 39. You were asked yesterday, or in the course of your cross-examination, if you had ever seen or know- of any drive wells previous to this one that you put down in 1858. Now, did you forme-ly know a man that lived here by the name of Otis—Mattison Otis he was called?

A. I did.

R. D. Q. 40. Did you ever know or hear of this Mr. Otis putting down wells in this village by using a lead or iron tube with a pump attached to it?

2999 & 3000 A. I have heard of Mr. Otis putting a pipe into a well screwing a pump onto it and getting water.

R. D. Q. 42. Now, describe how you heard these wells were constructed.

A. He would dig down unti*l*l he came to water; put in a tub or some other — a piece of a barrel; then putting his pipe into this tub or barrel; then fill up the hole with dirt around the tub or lead pipe.

R. D. Q. 43. How long since Otis was building wells in this way, as you understood?

3001 A. I don't remember.

R. D. Q. 44. Give it as near as you can.

A. It may be 25 or 30 years; I am not certain about it at all.

R. D. Q. 45. Do you know where Otis now lives?

A. I don't.

R. D. Q. 46. How long since he left Warsaw?

A. I don't remember.

R. D. Q. 47. Do you recollect of ever having seen a pump
3002 with a pipe attached to it and *in* pumping water from any
place where a portion of the pipe was buried up in the ground
previous to the time you put down this drive well, in 1858?

A. I have.

An adjournment was here taken to April 5th, 1880, at 9 o'clock a. m.

April 5th, 1880—9 o'clock a. m.

Parties met pursuant to adjournment.

As the witness, T. H. Buxton, was to- ill to be further cross-examined an adjournment was taken to April 6, 2 o'clock p. m.

April 6th—2 o'clock p. m.

Parties met pursuant to adjournment, and the redirect examination of T. H. Buxton was continued.

R. D. Q. 48. On your cross-examination you stated that your brother, Otis S. Buxton, was present and assisted in putting down this drive well in 1858, and you also stated that he died in Washington, D. C., giving the year of his death. Now, when did he first go from Warsaw to Washington?

A. In the summer of 1861.

R. D. Q. 49. Where did he reside or have his place of business after leaving Warsaw until his death?

A. He was in Washington all the time up to the time of his death; his family were here in Warsaw up to within five or six years of his death after he left Warsaw?

R. D. Q. 50. Was he in any business in Warsaw after going to Washington, in 1861?

3003 A. No, sir.

R. D. Q. 51. What business was he in in Washington in 1861 and for several years thereafter?

A. He was doorkeeper and assistant doorkeeper of the House of Representatives for several years.

R. D. Q. 52. Can you tell the time the Benson's machinery was moved into your shop?

A. Very near. My recollections are that he moved in there in the fall, as early as Sep., 1858.

R. D. Q. 53. You stated in your cross-examination that he moved his machinery into your shop and performed work for you; now, who performed the labor and — was at the expense of moving the machinery for late shop to yours?

A. Mr. Benson was.

R. D. Q. 54. When did you commence charging him rent?

A. Dec., 1858.

R. D. Q. 55. Was there any portion of the time he was in your shop for which you charged him no rent? If so, state when.

A. My recollections are that there were two or three months before that time we charged him no rent, but I am not certain about it.

R. D. Q. 56. You described some tongs with which you held this pipe while driving it down; were they such tongs as are now known as gas tongs or were they in any way different from gas tongs?

A. They were similar to gas tongs, still they were not made just like them; such tongs as we used for handling round iron at that time.

3004 R. D. Q. 57. Can you tell how that engine purchased in 1858 was paid for?

A. I can; our company paid at the time we got it—I think the 5th and the 2d of May—$380; the balance we gave our note for.

R. D. Q. 58. Were you interested in the engine at the time it was purchased in any way—as owner in whole or in part?

A. I was not.

R. D. Q. 59. Did Adams & Fargo, either one or both of them, have a note or notes against your firm at that time?

A. They did.

R. D. Q. 60. Why was it that your firm paid for this engine; how was that adjusted between Adams & Fargo?

A. They wished us to pay the money; we did so, and they endorsed it on our notes.

R. D. Q. 61. Do you know anything about a note which was cashed by Mr. Painter, the proceeds of which went towards paying for this engine?

A. I do; that is the note I spoke of; Mr. Adams and Fargo had our notes for the balance for the engine; Mr. Painter was on the cars when Mr. Adams went to Buffalo, and said to him that he would take our notes and give him the money, and he did so, and when they were due I paid it to him.

3005 R. D. Q. 62. In your cross-examination you said you had screw plates and dies in your shops. Did you have any screw plates in your shops at this time, 1858, that could be used for cutting screw threads on this gas pipe?

A. We had; after Mr. Benson moved into our shop we had that class of tools; previous to that time our work was done in Breck, Gates & Herd's shop, and they had the same tools that Mr. Benson brought to our shop, with which they done our work while there.

R. D. Q. 63. How distant from your shop was the shop of Breck, Gates & Herd?

A. About 150 feet, I should think.

R. D. Q. 64. Does this map correctly represent the situation of your shop & the surrounding buildings & premises?

A. It does.

R. D. Q. 65. What does that figure underneath which is written the word plug represent?

A. The plug turned by Mr. Adams, which I inserted in the tube.

R. D. Q. 66. This cut underneath which is written the word pipe, what does that represent?

A. That represents the pipe that we used in it and the plug as we drove it in the ground.

Map shown witness offered in evidence.

Map introduced in evidence and marked Defendants' Ex. No. 1, Warsaw, N. Y.

3006 R. D. Q. 67. This Colligan bill marked Complainants' Exhibit No. 1—who paid Colligan for the repairs mentioned in that bill?

A. I cannot tell.

An adjournment was here taken until April 7, 1880, 9 o'clock a. m.

April 7th, 9 a. m.—Parties met.

R. D. Q. 68. While your examination has been in progress in this case did Mr. Andrews, who was one of the complainants in attendance, and Mr. Hurlbut, his counsel, examine your books of account kept by you in 1858 and 1859 and for several years previous and subsequent thereto?

A. They did.

R. D. Q. 69. What opportunities did you give them for examining your books and what help, if any, did you afford them?

A. I showed them all of my books—my cash-books, day-books, and ledger—running back as far as 1850 and up to 1866, I think.

R. D. Q. 70. Did you have more than one set of books; and, if so, how many?

A. We had three sets of books. The books of C. & T. Buxton were examined from 1850 to 1860. The year the firm of C. & T.
Buxton terminated — in 1866. Then we examined the
3007 books of T. H. Buxton & Co. for three years, from 1866 to
1869. After 1869 my own books were there. I don't know whether they examined them or not.

R. D. Q. 71. You stated that previous to the time Benson moved into your shop your work was done at the shop of Breck, Gates, and Herd; is that shop still standing?

A. No, sir.

R. D. Q. 72. What became of it?

A. Burned up in 1859—the fall of 1859; I think it was in October, in the night.

R. D. Q. 73. Were you present at the fire?

A. I was.

R. D. Q. 74. What means, if any, were taken to put out that fire?

A. We used water from the well at the west end of the shop and formed a line from the well to the fire. After a short time the water in the well gave out and they formed a line from the fire to the race. They used the water in the drive well at the west end of the shop.

Redirect closed.

3008 Recross by S. B. BARTLETT:

R. C. Q. 1. You say that Mr. McClure assisted you in making this exhibit marked "Defendant's Exhibit No. 1;" did he make the measurements indicated on this map?

A. I am not aware that I testified that he assisted me in making it; he assisted in making the measurements indicated there, and he made the map himself.

R. X Q. 2. Do you swear positively that Mr. McClure made the measurements indicated on this map from the Windsor dwelling to the Buxton blacksmith shop?

A. No, sir.

R. X Q. 3. Did you make the measurements indicated on the map from the Windsor dwelling to the Buxton blacksmith shop; and, if so, when?

A. I did not.

R. X Q. 4. Do you know who did?

A. I don't know personally.

R. X Q. 5. Will you swear that the measurement indicated on the map correctly represents the distance between the Windsor dwelling and the Buxton blacksmith shop?

A. I will not.

R. X Q. 6. Do you know whether it correctly represents the distance or not?

A. I don't know positively.

3009 R. X Q. 7. Did you draw a picture of this cut upon the map marked "plug" and give it to Mr. McClure, and did he make this upon the map from that?

A. I may and I may not; I don't remember whether I gave him a draft of it or not.

R. X Q. 8. Did you give him a draft of the cut as here marked "pipe?"

A. I don't think I did.

R. X Q. 9. What measurement did Mr. McClure make in your presence indicated on this map?

A. He made the measurement from the front of the wood to the west end of the wood shop, and the distance between the wood shop and the smith shop, and the size of the smith shop before the addition was put on, and the distance between the first drive well and the stoned-up well, and the distance, I think, from the smiths shop to the cistern; perhaps the distance from the wood shop or the race to the cistern.

R. X Q. 10. Could you see either or both of the wells at the time these measurements were made?

A. I could see one of them—the stoned-up well.

R. X Q. 11. Was there anything there that you could see to indicate the exact place where the drive well was?

A. There were indications very near.

R. X Q. 12. Was there a floor where these measurements were made over the place where this drive well was?

3010 A. My recollections are now that there was no floor, but a wall over the place where the well was.

R. X Q. 13. Then you could only locate it from your recollections of where it was, could you?

A. The wall of the first shop showed very distinctly where it was, and it stood four or five feet from that.

R. X Q. 14. How did the wall show where it was?

A. I could see where the wall of the old shop ended, and the well stood four or five feet from there.

R. X Q. 15. In answer to redirect question three, in speaking of having your evidence copied, you say you thought that the defendant wanted that copy. Had the defendant requested of you a copy of that evidence?

A. I don't know as he has.

R. X Q. 16. Why did you think he wanted that copy?

A. I supposed he would have to have a copy of the testimony and I thought I would have to have a copy to read.

R. X Q. 17. Did you suppose that you was to furnish the copy?

A. No, sir.

R. X Q. 18. You stated that the bar used in putting down this well was such a bar as was commonly used at that time, and that the bars in use at that time were of different sizes. Please give the size of the bar in use at that time.

3011 A. They were from four to five and a half feet long.

R. X Q. 19. You stated that you had in your shops tools for cutting screw threads on gas pipe; that after Mr. Benson moved there he bought the tools. Who owned the tools?

A. I don't know.

R. X Q. 20. Did you own them?

A. I can't say whether we did or didn't; we had the use of them as if we owned them.

R. X Q. 21. You state that your brother Otis was for several years doorkeeper or assistant doorkeeper at Washington. How long previous to his death did he cease to act in that capacity?

A. I don't remember.

R. X Q. 22. In what business had he been engaged for a year or so prior to his death?

A. He had a position in the Government Printing Office, at Washington.

R. X Q. 23. Was Otis Buxton a dissipated man?

A. He never was here; the latter years of his life I can't say; I think the latter years of his life his habits were not exactly temperate, but I can't say he was intemperate, either.

R. X Q. 24. Had you heard from his relatives and others that he was?

A. I had heard it was and that it was not—both ways.

3012 R. X Q. 25. You were asked on your redirect if horses had not been hitched and stood around where this drive well was put down before it was put down, and you answered in substance that they were watered there, but might not have been hitched; do you mean that they were watered there prior to putting down this drive well?

A. I do not mean that horses were watered there previous to putting down this drive well.

R. X Q. 26. You testified to putting down some wells by Mr. Otis; did you see Mr. Otis put down any of the wells so testified by you?

A. No, sir.

R. X Q. 27. Is all you know about it what you have heard?

A. That is all.

R. X Q. 28. You testify of having seen a pump with a pipe attached to it, and in pumping water a portion of which pipe was buried up in the ground previous to putting down this well in 1858; at what place was that pump?

A. It was in different places; on different sections of the Erie railroad; on section 18, Mr. McCaffery's, and the section- of Athelton, Irving, & Cole—15, 16, 17, and 20—I think.

R. X Q. 29. What kind of a pipe was this pump attached to—lead or iron?

3013 A. I think the pipe and pump were together lead, tin, or zinc, or something of that kind.

R. X Q. 30. Have you examined, at any time during this examination, any books to ascertain the time of the burning of Bucks, Gates, and Herd's shop?

A. I haven't examined any books for the express purpose of finding that.

R. X Q. 31. Have you seen in any books the date of the burning of the mill?

A. I have.

R. X Q. 32. In what book?

A. The first was somebody—I think my brother, C. C. Buxton—was reading it; I didn't see it; might have been somebody else in the room; he was inquiring about it.

R. X Q. 33. How long after the fire of Bucks, Gates and Herd's shop was it before you got them?

A. Very soon, I think.

R. X Q. 34. Were the people engaged in throwing water on the fire when you got there?

A. I think they were.

R. X Q. 35. Were there any lines formed at that time; and, if so, from and to what places?

A. I think there were none formed when I got there.

R. X Q. 36. From what place was the first line formed?

A. From the drive well to the fire.

R. X Q. 37. How long did you get water from the drive well?

A. I can't tell; we used it till it was pumped dry; I can't tell how long.

3014 R. X Q. 38. Name all the persons that you now recollect of getting water from that well?

A. I can't tell who worked from the well. There was a large crowd of people there from the village, besides our own hands; I will say Mr. Dibble, Mr. Bisby, Mr. Burr, Mr. Colt, C. P. Williams.

R. X Q. 39. From what other places did you get water to put out the fire?

A. From the mill-race; don't remember of any other place.

R. X Q. 40. Was there not a line formed from the creek?

A. I don't remember of any being formed from the creek.

R. X Q. 41. How far from the mill was the creek?

A. From 100 to 200 feet, I should think; perhaps more.

R. X Q. 42. Did Mr. Andrews or Mr. Hurlbut ask you to have map or survey of these premises made?

A. They didn't use that word.

R. X Q. 43. State all the persons you recollect being present at the Breck, Gates & Herd fire.

A. Mr. Cronkhite, C. P. Herd, Frank Herd, Mr. Seth M. Gates, Mr. Adams, Mr. Nicholson.

Recross ceased.

3015 Second redirect:

Q. 1. You are well acquainted with the ground between the Windsor lot and your shops, are you not?

A. Yes, sir.

2nd R. D. Q. 2. What, about what, is the distance in feet from this Windsor lot to your shop?

A. I should think perhaps 200 feet; that is my best recollection.

2nd R. D. Q. 3. Do you know whether or not McClure had any measurements of the distance?

A. He said he had; that is all I know about it.

Second redirect closed.

Second recross:

Q. 1. Have you measured the distance from the Windsor house to your shop?

A. I have not.

2nd R. X Q. 2. Were you present when the map was made?

A. I was not.

2nd R. X Q. 3. Do you know from what Mr. McClure got his measurements?

A. I dont. When we got through the measurements he said he had the rest of the measurements himself, across the lot to the Windsor house.

2nd R. X Q. 4. Do you not know that he made this map from Sanborn's insurance map of this village?

A. I do not.

3016 2nd R. X Q. 5. Describe the pump and tube referred to by you in your answer to recross-question 29.

A. A tin or zinc tube, with a box and rod attached to it, running down inside the tube so you could work it by hand; then there would be a hole in either the sides or upper part of the tube for the water to come through. It is about such a pump as is used in stores for pumping oil in cans.

Third redirect:

Q. 1. Have you any charge on your books against Jabez Warren for work done by your firm? If so, produce the books and let the notary copy it.

A. I have; in C. & T. Buxtons' ledger, marked on the back "Ledger, 1855, C. & T. Buxton," on page 473, an account against Volney Warren appears, and in it is an account against Jabez Warren as follows:

1860, Dec. 15, 716	7 50
" 18, 726	
" " for Jabez, 727	5 75

After that the account- all go on against Jabez and Volney Warren.

Third redirect closed.

3017 Third recross:

Q. 1. Are the items which you have given to the notary all the items against Volney which appear on your books?

A. No, sir.

3d R. X Q. 2. Will you produce the books and allow the notary to copy the account in which are the items above referred —?

A. I will.

Volney Warren:

1855, May 10, repairs thills, 48		$2 50
1856, Oct. 16, to repairs, 423		2 38
		$4 88
Nov. 22, by T. Buxton		$4 88
To account above	$4 88, note	
And interest, 450	5 20	
Order on O., S., B. & C.	18 56	
	28 64	
Nov. 22, by order of T. Buxton, 450		$28 64
1858, February 3d, to repairs, 122		$2 00
June 24, " " 209		2 75
1859, May 6, " Jabez, 360		7 00
May 10, " repairs, 364		50
1860, Dec. 15, " " 716		7 50
Dec. 28, " " 726		
Dec. 28, p'r Jabez, 727		5 75
		$25 50

The two items in the book are the only charges I have against Jabez Warren on July 24, 1861. I have an account against Jabez and Volney Warren which continues to 1864.

Ex. closed.

147—16

3018 Before signing his deposition the witness desires to make the following corrections:

In answer to question 20, "10 or 12 years," instead of very soon.

In answer to question 22, "A new engine was put in in 1858 and we had it repaired in 1864."

In answer to question 30 I meant to say, "I can't — the diameter of the pipe; I think a quarter or a half of an inch; I think it was either inch and a half or inch and a quarter pipe."

In answer to question 49 I meant to say, "The same kind of a well."

In answer to cross-question 75 I meant to say, "It was east and north from 75 to 100 ft."

In answer to cross-question 190 "I desire to state that the first engine was repaired in 1864 and the second engine bought in 1869."

In answer to cross-question — I meant to say, "But first I paid Colligan for the engine in full in the spring of 1858 and the balance in 1859, the same being endorsed on our notes which Adams held against us."

(Signed) T. H. BUXTON.

Sworn & subscribed before me.

(S'g'd) E. M. BARTLETT,
Notary Public.

3019 Then the said Hiram E. Adams, being duly sworn, testified as follows:

3020 Question 1. What is your name, age, and place of residence?

3021 A. Hiram E. Adams; sixty-nine next Monday; Warsaw.

Q. 2. Did you know the firm of C. & T. Buxton during its existance?

A. I think I have; yes, I have know- them as a firm.

Q. 3. Did you know that firm while it was on Main St., in this village?

A. I did.

Q. 4. Did you know it during the entire time it was in business on Main St., in this village?

A. I did.

Q. 5. Were you acquainted with their shops on Main St. and

3022 the premises where their shops were situated?

A. I was.

Q. 6. How long were you acquainted with those shops and premises?

A. Witness asks, "Can I answer that my way?" I was acquainted with the land when they bought; knew when they drew the lumber to build the shop, and they piled the timber up for a spell; they built the shop and I knew it ever since, excepting I was away a year of the time, but I knew it at the same time.

Q. 7. Did you ever work in those shops and upon those premises?

A. I did.

Q. 8. How long did you work in those shops and upon those premises?

3023 A. 8. I commenced work in the shops in the spring of 1858;
can't tell exactly how long I worked in those shops; it may
have been about 8 years; can't tell exactly; remember about them.

Q. 9. What kind of work did you do there in the shops?

A. Wood turning, sawing, different kinds, and pla*i*ning, boring, and tenanting; these were the principal—; then there was a great many little things I was doing all the time.

Q. 10. When you went in there, in 1858, was there anybody associated with you in business as partner or in any other way?

A. There was.

Q. 11. Who was it?

A. Silas Fargo.

Q. 12. What business, if any, did you and Fargo carry on there?

A. In the first place we worked for C. & T. Buxton, getting out
their wagon stuff; that was an understanding between us and Buxton,
that we were to do their work; we then did odd jobs of turning,
such as newel posts and banisters for stairs and such kinds of turning;
it is hard telling all the items we did, as we did odd jobs
3024 for anybody, and we built in that time 100 revolving rakes,
the time we were together.

Q. 13. How long were you and Mr. Fargo together?

A. One year or thereabouts; it might have varied a little, but just about a year.

Q. 14. Did you put in any machinery there in those shops?

A. I did.

Q. 15. What machinery did you put in?

A. 15. Well, sir, we put in an engine—five-horse-power engine—a turning-lathe, and a big saw and frame; the lathe and saw and tools to that belonged to me separately.

Q. 16. Where did you get this engine you put in there?

A. Bought it of F. Colligan, of Buffalo.

Q. 17. Can you tell what time you bought that engine, Mr. Adams?

A. I can't tell the day.

Q. 18. Well, the month or year?

A. Some time in the month of May, 1858.

Q. 19. What was the price?

A. I think it was $500.

Q. 20. How was it paid?

A. W*a*l, sir, the most of it was money down; we gave a note, due in a year; that was given by C. & T. Buxton, I should say; they were owing me and they gave this note. When we went after the engine I took along a note; I took the money also and paid Mr. Colligan up and brought the note back.

Q. 21. Where did you get the money?

3025 A. 21. Mr. Painter gave it to me.

Q. 22. What did you do with the note after you brought it back?

A. Gave it to Mr. Painter.

Q. 23. Who was the maker or makers of that note?

A. Signed "C. & T. Buxton."

Q. 24. Do you know of any well or wells being put down on the Buxton premises while you and Fargo were together?

A. I did.

Q. 25. State all you know about it.

A. Well, sir; there was a pipe brought into the shop for me to turn a plug to put in the end of it; that was about the first I knew about it. I turned the plug out of hard hic-ory. I was ordered to
get it cut of something hard and tough. The end of it was
3026 turned so that it went into the pipe about 4 inches, with a
good shoulder on it, and from that right down to a point; then it was taken to an upright drill that we had right close by and holes were drilled along for four equal distances around on the quarters, so that it came on the quarters of the round for about 8 inches up along; perhaps I should say that that was a gas pipe; perhaps a bar would mean solid iron, wouldn't it? I had no more to do with it than that. I saw it taken out. They had a long crowbar, a very long one; they punched a hole down a piece—I don't know how far—before they put the pipe in. Well, they drove that pipe down into the ground; they screwed a pump on it and tried it; they unscrewed the pump again and drove it still further, and they then tried it again. I can't tell they raised the pipe a little; they got water and they got gravel with it. I don't know there was a good deal said and a good deal laughing about the well. I can't tell any more particularly about the well.

Q. 26. After the gas pipe was put down in the manner you have
described and the pump put on and water and gravel pumped
3027 out what was done with the well, if anything?

A. Well, I can answer it in my way the best whether it would be proper or not. They used it for a number of days pumping water and gravel; it formed sort of a vacuum down there; it was quite a while before we got clear water, from the fact that there would always be a little gravel settle; I don't know as there was anything more; it was used; I don't know as I have anything more about the well.

Q. 27. Do you know anything about how long this well was used on these premises, if at all?

A. I do not know how long it was used.

Q. 28. How long do you know of its being used, if you know anything on that subject?

A. I know it was used that season through the dry weather.

Q. 29. About how long was this pipe, Mr. Adams?

A. I think it was about a 12-ft. pipe; it might not have been over 10; my impression is that it was about 12.

3028 Q. 30. Whereabout on the premises was it put down?

A. It was put down on the west side of the blacksmith shop, a little north of the centre.

Q. 31. About how far was this place from the creek, Allen's creek, or Otaka?

A. I never measured it; should think it might be some 30 rods; can't tell, for I did not measure it.

Q. 32. In which direction was the creek?

A. West or southwest.

Q. 33. Was there any well-hole or excavation in the place where this tube was driven down spoken of by you until the hole was made with the crowbar, as you have described?

A. Not that I know of.

Q. 34. Where did you get the water for your engine?

A. It was taken from the race that run under the shop.

Q. 35. Did you get any from any other place than the race at any time?

A. I did.

Q. 36. When was that and where?

A. Well, sir; I can't tell exactly in what month it was; it was either in July, August, or September; I carried it in pails from that pump.

Q. 37. What pump do you mean?

3029 A. I mean the one on that well that they put down.

Q. 38. Did any person or persons assist in carrying water from this pump to the engine; and, if so, who?

A. I would like to make a little expla*i*nation; you need not take it as testimony.

Counsel for complainants desire witness to answer the question.

Further answer of witness is: We had about ⅔ of an oil barrel set to receive the exhaust water, and we would draw that right into the *the* engine, the exhaust water, and by filling that twice with the exhaust water that naturally went in and was worked over we could run that small engine one-half a day.

Q. 39. Question repeated.

A. They did, I answer. I had a brother that lived with me that was entirely deaf; he used to come up to the shop and carry water for me and make fires some; I don't know as any other one did help to carry water.

Further examination of this witness postponed until 2 o'clock, p. m.

At 2 o'clock p. m. parties met pursuant to adjourn*ed*.

Q. 40. Mr. Adams, do you remember Elihu Benson?

A. I do know him well.

Q. 41. Did you at any time do any work or run any machinery in connection with him?

A. That is a curious question for me to answer.

Q. 42. If you can answer it do so.

A. He belted from my line shaft to run an iron lathe right
3030 overhead; he run on his own hook; I had nothing to do with it.

Q. 43. Who furnished the power to run the lathe?

A. Well, sir, the power was from the engine that I run.

Q. 44. When was this lathe of Benson's put in there?

A. It might — been 1858 or 1859.

Q. 45. Was it in one of those years?

A. I think it was.

Q. 46. Do you know whether Benson was around there at the time this well was put in you have described?

A. I do not remember.

Direct examination here closed.

Cross-examination by Mr. ANDREWS under the protest of defendent's counsel heretofore made, reserving the same rights as was made to the cross-examination of Mr. T. H. Buxton:

X Q. 1. What was the amount of the C. & T. Buxton note which you paid to Colligan?

A. I can't tell exactly; it was a little over $100.

X Q. 2. Who made the other note which you took with you to pay to Colligan, but brought back?

A. There was but one note; the rest was money.

X Q. 3. What, then, do you mean, in answer to direct question 20, when you say, "I took the money also," "paid Mr. Colligan up, and brought the note back?"

3031 A. Well, sir, I mean that the balance that I had not the money for was in a note that Mr. Colligan agreed to take, due in a year, and that Mr. Painter offered me the money and took the note at a little shave, if Colligan would take it in room of the note.

X Q. 4. Well, what note was it that Mr. Painter took and gave you the money —?

A. It was the note that I was to let Mr. Calligan have, made by C. & T. Buxton.

X Q. 5. Then do you mean to say that you paid to Calligan cash for the full amount of his bill for that engine?

A. It was paid by the way of T. H. Buxton—the cash was; he was owing me the money.

X Q. 6. You answered question "21," which was: "Where did you get the money?" "Mr. Painter gave it to me." Did Mr. Painter give it to you?

A. He gave me the money to pay the note, or to pay on the note.

X Q. 7. Gave you the money to pay on or what note?

A. The note that I took to Mr. Calligan; the balance that was due him on the engine; he was to wait a year.

X Q. 8. When did you get this money from Mr. Painter? Was it before or after you went out and purchased the engine of Mr. Calligan?

A. Well, sir, I made the bargain for the engine some two
3032 or three weeks before I was to have it; before it was com-
pleted; he paid me the money the day I started to go after
the engine, in the morning.

X Q. 9. Did you give the note to Mr. Painter when he paid you the money on it, the morning you went for the engine?

A. I did not.

X Q. 10. Then Mr. Painter gave you the money for the note before you went to Colligan for the engine, did he?

A. He did.

X Q. 11. Why, then, if he paid you the money for the note, did you take it to and offer it to Calligan?

A. Well, Mr. Painter was a man who had money, and I did not know as Mr. Calligan would take the money for the note; it was less than the note.

X Q. 12. Then did Mr. Calligan take the money and allow you the same or a greater shave on that not- than you paid Mr. Painter?

A. Well, all I can say is Mr. Calligan took the money in li*ew* of the note; he was a little tight at the time, and rather have the money than the note; that was the remark he made to me.

X Q. 13. How much money did you pay him in li*ew* of the note?

A. Well, I think a little over a $100.

X Q. 14. How much did Mr. Painter pay you for the note?

3033 A. 14. He did not pay me anything for the note; I merely did that business for them.

X Q. 15. Did that business for who?

A. For Mr. Painter.

X Q. 16. Then you paid to Mr. Calligan the same amount of money in li*ew* of that note that Mr. Painter paid to you, did you?

A. I did.

X Q. 17. Did you do this business to accom-odate Mr. Calligan, Mr. Painter, yourself or any one else?

A. I did it to accom-odate Mr. Painter and Mr. Calligan; it did not accom-odate me.

X Q. 18. How much money did you pay to Mr. Calligan al*l*together when you went for that engine?

A. We paid him $500; I don't know whether we had a draft or —.

X Q. 19. Did you pay him the full amount, either by cash, draft, or otherwise, at the time you went for that engine?

A. With the exception of the shave that Mr. Painter made on the note. I don't know how much that was.

X Q. 20. Did you get a bill for that engine at that time, and was that bill receipted?

A. I think I did not.

X Q. 21. Why not?

A. Well, I did not consider it necessary; I suppose I don't know anything about it.

3034 X Q. 22. Do you mean to say that neither at that time or at any other did Mr. Calligan give you a receipted bill for that engine and boiler?

A. I have no recollection of taking a bill for that engine at that time or any other; he agreed to make it and send it to me and did, and I paid him for it.

X Q. 23. Did you then and there take possession of the engine & ship it at once?

A. I think the engine was not quite completed, and he shipped it to me two or three days after.

X Q. 24. Had you previously bought engines from Mr. Colligan or had other dealings with him?

A. I had not.

X Q. 25. What acquaintance had you with him?

A. Well, sir, I went out to Buffalo to look for an engine; I was recommended to go and see his; went to Tifts; did not like it, and went to see his, and liked it and struck up a bargain with him.

X Q. 26. And was that your first and only acquaintance with him up to that time?

A. That was the first acquaintance I had with him.

X Q. 27. By what conveyance was that engine sent to you?

3035 A. On the Erie railroad.

X Q. 28. Where did the Erie railroad deliver it?

A. Up at the depot here on the west hill of this village.

X Q. 29. What was the amount of freight upon it, and who paid it?

A. I can't tell exactly the amount. It wasn't far from $20.00. Whether it was a little over or a little under I don't remember. It is my impression that T. H. Buxton paid it. I can't tell whether I paid it or he. He was owing me, and if I paid it I got the money of him.

X Q. 30. And do you mean to swear positively, Mr. Adams, that you paid to Mr. Colligan, a stranger to you, in the neighborhood of $500 for an unfinished engine that was to be afterwards finished and sent to you, and took no bill or receipt for the same?

A. I don't know that I paid him until the engine was shipped.

X Q. 31. In answer to question 20 you say that "We went after the engine. I took the money; also paid Mr. Colligan up and brought the note back." Was and is the answer true?

A. I know I paid up for the engine and brought the note
3036 back; paid up in notes and drafts and such things. I don't
say that I carried the money all along.

X Q. 32. Do you now positively swear that you did pay notes on account of that engine?

A. I don't recollect.

X Q. 33. Now, Mr. Adams, in answer to cross-question 2, you said there was but one note; the rest was money; and in answer to cross-question 3 you say that "The balance I hadn't money for was in a note that Mr. Colligan agreed to take, due in a year; and that Mr. Painter offered me the money and take the note at a little shave if Calligan would take it in the room of the note;" and are your answers true? Please answer yes or no.

A. That is such a long question I cannot comprehend it.

X Q. 34. Were your answers to cross-questions 2 and 3 correct; and do you now so swear positively that they were and are correct?

A. I do swear that they were correct.

X Q. 35. Did you purchase that engine for yourself alone for the firm of Adams & Fargo, or for whom did you purchase it?

A. Well, sir, I and Fargo purchased it together.

3037 X Q. 36. How much of the money paid for that engine did Mr. Fargo furnish?

A. I think he furnished one-half.

X Q. 37. Will you swear positively that he furnished one-half?

A. No; I will not; because I had notes and they went to pay for it, and I might have paid more or less; I can't say.

X Q. 38. Did Mr. Fargo furnish either in money, drafts, notes, or other evidences of indebtedness other than his own note for one-half of the amount paid for that engine?

A. I don't know; I don't recollect.

X Q. 39. What style of engine was this; was the engine connected to the boiler, such as is commonly called a portable engine, and was the boiler perpendicular, horizontal, or locomotive style?

A. It was a portable engine; the engine set on top of the boiler; it was a horizontal, single-flue boiler.

X Q. 40. What was the power of that engine and boiler?

A. It was called to me a five horse power.

X Q. 41. How was water fed to the boiler?

A. It was drawed up in a pipe, and then there was a force pump that drove it up from the heater to the boiler; the heater lay alongside of the——

3038 X Q. 42. Were the steam and water pipes fitted to the pump, engine, and boiler before you received them?

A. They were all fitted except the pipe that draws the water from below up.

X Q. 43. Was the water force pump a plunger or piston pump, and what was its diameter?

A. I called it a piston; it was a straight piece of iron about an inch in diameter; probably a plunger would have been the proper word for that.

X Q. 44. What was the internal diameter of the feed pipe leading from that pump through the heater to the boiler?

A. The pipe that went through the heater was copper and about an inch in diameter; it went the length of the heater, turned, and then came back & went into the boiler. I think the feed pipe was cast iron, and the outside might have been two inches. I am mistaken in regard to that; it was probably ⅝ of an inch internal diameter; might have been three-quarters.

X Q. 45. Of what material was the suction pipe to this plunger feed pump and what its internal diameter?

3039 A. I had two different kinds; had lead and afterwards I think I had iron, but it was lead generally, either inch or inch and quarter outside diameter.

X Q. 46. Where did this lead suction pipe take its water from?

A. I had two of them I could use if — wanted to. One of them went down into the race, and if the race bothered me I had a short one I could put in that tub.

X Q. 47. How long were each of these two suction pipes?

A. The one that went into the tub was, perhaps, 3 ft. The other one must have been 16 ft. long; don't know exactly. I can't tell the exact length.

X Q. 48. What eventually became of this engine and boiler?

A. I traded it with Mr. Colligan for a heavier one.

X Q. 49. When?

A. I can't tell. I run that engine some six years. I can't tell exactly; perhaps seven.

X Q. 50. Did you use this first engine in the same place during the whole time?

A. I did.

X Q. 51. Did you put the second engine into the same place?

A. We built a wall from the bottom up some 6 or 8 ft.—a stone wall—large enough for that to set on, right where the other stood.

X Q. 52. What style of engine was that?

3040 A. It was the same style.

X Q. 53. How long did you run that engine in that place, and what became of it?

A. I can't tell how long; might have been 4 or 5 years. I had a shop built right southwest of this shop, and part of it is standing there now.

X Q. 54. Had you, previous to purchasing this first engine of Calligan of which you have testified, owned and been running another engine?

A. I had.

X Q. 55. What kind of an engine, & where was it?

A. I bought it of Woodbery, in Rochester, new and for four horse power. I and Mr. Norris bought it together. We rented the building of Dr. Frank called " The Old Furnace," on Main St., and put it in there.

X Q. 56. When was that, and when did you cease using that engine?

A. Well, I haven't thought of it; it was somewhere in 1840, and used it; it may have been three (3) years. I sold it to Philander Truesdell to make matches with.

X Q. 57. What business did you follow from the time you ceased to use that engine until you bought & commenced using the Colligan engine in the Buxton shop?

A. I was in the turning business. I had one upright saw; did sawing; sawed bellies, gearing, and that kind of stuff.

X Q. 58. Where were you engaged during those years?

3041 A. I was in a plaining-mill owned by Gates, Beck & Herd down west of Buxtons' shop; I worked there by the day for C. & T. Buxton for twelve shillings per day; I was sawing gearing stuff for wagons, whiffletrees, hubs, &c.

X Q. 59. Did you furnish power for your lathe and saws, and was the cost of that power included in the 12 shillings per day which you received?

A. Buxton paid for what power was paid for, but I would here state that the waste about paid for the power.

X Q. 60. Who furnished the power?

A. Breck, Gates & Herd.

X Q. 61. What was the power they furnished?

A. Steam.

X Q. 62. What was the size and style of the engine they had in their shop?

A. they used to call the engine 40-horse power; they had two long boilers; afterwards they put in another, which made three; they could not make steam enough. I don't know what name you would give the engine; couldn't tell. Engine stood on a wall; I think the cylinder must have been four ft. long and the frame-work might have been ten ft.; that was iron.

3042 X Q. 63. How long was you in that shop using power of Breck, Gates and Herd- engine?

A. It was between one and two years—I can't tell; it was over one.

X Q. 64. What was the size of Breck, Gates & Herd's shops, and what business or different kinds of business were carried on in the shops? Please answer fully.

A. I don't know anything about the size of shop; they done plaining and matching lumber, made doors, blinds, sash; I can't tell all; I had a small room right back of engine.

X Q. 65. How many stories was the building?

A. There was two rooms, one above the other; don't know what you call a story.

X Q. 66. Where and in what business were you engaged from the time you left Dr. Frank's place until you went into Breck, Gates and Herd's building?

A. I don't know that I was in any business; there was a spell I did not do anything.

X Q. 67. What was the size of the rooms you and Mr. Fargo occupied, as you say, for about one year, in the Buxton building?

A. I don't know what the size of it was.

X Q. 68. Give us your best judgment as to the diminsions.

3043 A. I think the room must have been between 30 & 40 ft. one way and perhaps 30 the other; Buxton occupied the north side to pile up lumber; we occupied the rest.

X Q. 69. Was it on one floor, and was the engine and boiler in this same room?

A. The south side of the floor of the building was about a ft. higher than the north side, and the engine stood in the southwest part.

X Q. 70. Who ran the engine and boiler?

A. I was the principal one that tended it.

X Q. 71. Did the firm of Adams & Fargo employ hands working in that room; and, if so, how many, and please give their names?

A. I don't know that they employed help more than once in a while a day; I do recollect that Franklin Herd helped us a little about some horse rakes.

X Q. 72. What machinery did you own and run in that room, Mr. Fargo & yourself?

A. Mr. Fargo and myself put in the engine and wood-turning lathe; C. & F. Buxton put in one line shaft; the upright saw Buxton put in, and a drill and a boring and tenanting machine; Fargo and I also put in a rotary plaining machine; all these new wood-working machines, except a drill that you put your foot on for drilling tire and other iron. 3044

X Q. 73. You speak of manufacturing revolving rakes. Were they a patented article?

A. I do not know.

X Q. 74. What price did these rakes sell for apiece?

A. I think about $12.00, but I am not positive.

X Q. 75. Did you and Fargo manufacture these rakes on your own account, and were they manufactured by and for yourselves?

A. They were.

X Q. 76. How much of the time did you and Fargo work for the Buxtons'?

A. I can't tell how much; we did their work by the job at that time; so much for such & such kind of work.

X Q. 77. Please give us your best recollection.

A. It might — been one-half of the time; we were to do their work in preference to anybody else.

X Q. 78. And did you also do work for Breck, Gates & Herd while you were in that shop?

A. We did some.

X Q. 79. Is the building still standing which Breck, Gates & Herd formerly occupied, and in which you at one time had a room?

A. It is not.

X Q. 80. Who now occupies that shop or mill?

3045 A. That shop was burned.

X Q. 81. When was that shop burned?

A. I don't know when it was burnt.

X Q. 82. Give us the time as near as you can recollect.

A. My opinion is that it was in 1854, but I can't recollect. They had a shop burn- there, a planing-mill, and then they rebuilt again and it was burnt again. The last one was in 1854, but I am not positive—don't remember—and there has been none there since.

X Q. 83. Please tell us what the cost was of the material of which you made those rakes.

A. I don't recollect now.

X Q. 84. Give us your best recollection, knowledge, and judgment.

A. My best recollection is—I can't tell anything about it. We made an estimate after we got through what they cost us.

X Q. 85. When you and Mr. Fargo worked for the Mess. Buxton in your shop by the day what price per day did you charge them?

A. We worked by the job.

X Q. 86. Did you not during the years 1858, 1859 work for the Mess. Buxton and charge them for that work by the day?

A. There might have been some days, but it was principally by the job.

X Q. 87. What price did they pay you for those some days?

A. We had twelve shillings per day.

X Q. 88. What was the cost of each revolving rake, including labor?

3046 A. Between five and six dollars.

X Q. 89. What proportion of the time did you work at outside jobbing?

A. Some weeks we might have worked a couple of days; some weeks not any; some weeks more and some less.

X Q. 90. Has one of the Mr. Buxtons, for whom you worked and who you say put down this tube well, been in this room this afternoon and the most of the day since you have been testifying, and has he just now left the room?

A. Yes.

X Q. 91. Did Mr. Buxton as he left the room address you or did you address him in an undertone? And, if you say he did or you did, please say what passed between you, giving the exact words as near as possible.

A. I spoke to him; he is a brother-in-law of mine, and I don't know as it is necessary for me to say we have business between us.

X Q. 92. Do you refuse to state what passed between you while you were occupying the stand as a witness?

A. I do not.

X Q. 93. Then please state what passed between you.

A. I asked him if he would come and see me—I was feeling pretty bad—and he said he would; that was every word.

3047 X Q. 94. Now, Mr. Adams, do you positively mean that what you have stated is all that passed between you and he, Mr. Buxton, as he passed out, and is that all that passed, giving the exact words?

A. Well, perhaps I have not given the exact words; I meant to; perhaps I asked him to come down to my house and he said yes.

X Q. 95. Did you not address him in these exact words: "Come down to my house to-night, will you?"

A. That is very much as I told it; I can't —.

X Q. 96. Were you yourself in the room a portion of the time during which Timothy H. Buxton was being examined as a witness in this case?

A. I was in some.

X Q. 97. Is Timothy Buxton also a brother-in-law of yours?

A. He is not.

TUESDAY, *Feb'y* 25, 1880.

Parties met according to adjournment and examination continued.

X Q. 98. Since the adjournment last evening have you seen and conversed with Mr. C. C. Buxton?

A. I have.

X Q. 99. Was the subject-matter of this examination talked of between you?

A. There was very few words.

3048 X Q. 100. Was Mr. Buxton at your house, as you requested him to be?

A. He was.

X Q. 101. Please give the conversation that occurred between you in relation to matters connected with this examination.

A. When Mr. Buxton came in I was lying on the lounge. He asked me if I was tired out. I told him I was. I told him I did not want to say anything in regard to the trial here, excepting one thing, and that was in regard to the fires of those two buildings, and I told him that as quick as I went out of here it came to me about the time the fires took place he referred me —. I told him that I thought it was as late as '59 when the first fire was. He referred me to the history of Warsaw. There wasn't much else said between him and me in regard to this suit; he wasn't there more than fifteen minutes.

X Q. 102. What did he refer you to the history of Warsaw for?

A. He said that gives the date of those fires.

X Q. 103. Did Mr. Buxton say to you that you had made a mistake in your testimony as to those fires?

A. No, sir; I told him that I had.

X Q. 104. How did you find out that you had made such mistake?

A. When I went out of here it came to me to—when I went out I
hadn't never—it came to my mind that I done sawing and
3049 planing for their machinery and sawing rims for what we call
spiders to make pulleys on, and planing for their planing-machine and other saws there timber; I went home and looked at my book and saw those charges—a long list of them—for doing that work in 1859.

X Q. 105. When did the history of Warsaw state that those fires took place?

A. It think it was October, 1859, the first fire; the second one was something like six years after.

X Q. 106. Then in speaking of these fires yesterday you made a mistake of some twelve years in the date of the last fire, did you not?

A. I didn't tell you yesterday when the fires were; I told you I couldn't tell; I told you there was two fires, but they then asked me to tell about the time; I said it might be about such a time; I was so confused.

X Q. 107. You answered cross-question 82 as follows: "My opinion is it was in 1854, but I can't recollect; they had a shop burned there, a planing-mill, and then they rebuilt, and it was burnt again; the last one was in 1854." Is not the last section of that sentence a
positive statement? Please answer yes or no.
3050 A. I did not swear to any time when they were burnt positive yesterday.

X Q. 108. Your memory does not appear to be very good in regard to transactions occurring twenty years ago; therefore I ask you is not your memory defective?

A. Things that I don't take any interest in I don't try to remember; things that I do I remember perfectly well for more than forty — fifty years.

X Q. 109. During what years did you occupy a portion of the building of Breck, Gates & Herd, as you have heretofore testified you did do?

A. I was there in 1857; perhaps the winter of 1857–'8.

X Q. 110. Was this the first or second building that you say was burned?

A. It was the first.

X Q. 111. How far from the shop you then occupied was this building which you now say was burned in 1859?

A. It might have been ten or fifteen rod-; I never measured or paced it off.

X Q. 112. At what time of day or night did that fire occur?

A. The first fire was somewhere commenced about 2 o'clock at night.

X Q. 113. Were you present at and during that fire?

A. The fire had broke out before I got there, but I was there through the principal part of it.

3051 X Q. 114. How near was your place of business to that shop when the second fire occurred, and what time o' day or night did that occur?

A. Same distance as before; it broke out at noon while we were at dinner.

X Q. 115. Were any other buildings burned at the time or times of either of these fires?

A. There was a long shed filled with lumber belonging to C. & T. Buxton.

X Q. 116. Where was this shed situated? Give its position relatively to brick smith shop of Buxton & Company.

A. The shed was right east of the planing-mill and running north and south; it might — been 100 feet long; might — been 200; I can't tell; it was quite a long shed and filled with lumber all the way; it might have been six or eight rods—might have been ten west of the blacksmith shop.

X Q. 117. Was it at the time of the first or second burning of the planing-mill when this shed and lumber belonging to Buxtons' was burned?

A. I think it was the first.

X Q. 118. Do you know anything about the value of the shed and its contents belonging to C. & T. Buxtons, which was burned at that time?

A. I do not.

X Q. 119. Can you not give some idea of its value, whether it was one hundred or ten thousand dollars?

A. My opinion is it might have been $2,000 or $3,000 worth; but I don't know.

X Q. 120. Were you not at that time in the employ of the Buxtons, and was not one of the firm your brother-in-law?

3052 A. Yes.

X Q. 121. And still do you mean to say that you did not take any interest in this occurrence or try to remember it?

A. I don't know how to answer that question, for it's —.

X Q. 122. In answer to cross-question 108 you said, "Things that I don't take any interest in I don't try to remember; things that I do I remember perfectly well for more than forty or fifty years." Now, you make a mistake of some twelve years in giving the date of the last burning of Breck, Gates & Herd's shop. Was that mistake in your memory because you took no interest in the occurrence? Please answer directly yes or no.

A. I never swore positively when that fire took place; I told you I could'nt tell.

X Q. 123. Why did you not swear positively to the dates of these fires?

A. Last night I could not recollect much of anything.

X Q. 124. Did you examine the history of Warsaw last evening, and thus ascertain the dates of these fires?

A. I examined it this morning with my books or a book that I had.

X Q. 125. To whom does the history of Warsaw that you examined belong?

A. It belongs to me.

X Q. 126. You did take a lively interest in the occurrences connected with those fires, did you not?

3053 A. I don't think I did, any more than a general interest.

X Q. 127. How many fires of equal magnitude have occurred in this town since 1850?

A. I can't tell.

X Q. 128. You don't take much interest, then, in fires, even when they destroy thousands of dollars' worth of goods belonging to your employers and relatives, do you?

A. I feel an interest, but I can't say that I can do as much as some others in my crippled state.

X Q. 129. How long have you been in the crippled state to which you have referred?

A. I was shot while loading a cannon in 1832, in September, the 5th day of September.

X Q. 130. Then that excuse holds equally good during the entire time covered by any and all the occurrences of which you have here testified, does it not?

A. It does in regard to carrying lumber, lifting machinery, going over to the buildings. When there is anything of that kind I always have to stand back.

X Q. 131. When you say, in answer to cross-question 128, "I feel
an interest, but I can't say that I can do as much as some others in
my crippled state," what do you mean by that? Has it anything
to do with your memory or the interest you take in affairs;
3054 and, if you say it does not, why did you interpolate that
statement into an answer to the following cross-question,
which is number 128 and reads thus: "You don't take much interest, then, in fires, even when they destroy thousands of dollars' worth of goods, when they belong to your employers and relatives, do you?"

A. I meant to say, if the court please, that I haven't mind enough or something to understand these questions well enough to answer, directly or indirectly.

X Q. 132. The notary having read to you cross-question 128, I now ask you whether or not you understand that question.

A. I understand question 128.

X Q. 133. Question 128 repeated.

A. I think I don't take the interest that some others would that belong to fire companies and make that their business at fires. Still, I feel an interest.

X Q. 134. How many days' labor did it take to make each of the revolving rakes you have spoken of?

A. I do not know.

X Q. 135. Did you and Mr. Fargo, when in company, keep books?

A. We had a book in which we kept our accounts.

X Q. 136. Where is that book now?

A. I do not know.

3055 X Q. 137. Who succeeded Mr. Fargo in the business with you?

A. I was alone in the business.

X Q. 138. Did you buy out his interest?

A. We divided.

X Q. 139. What did he take and what did you take?

A. I took the machinery; he took the rakes. I paid him money and accounts to balance up.

X Q. 140. Did you continue to keep your accounts in the same book in which you had previously kept the accounts of Adams & Fargo?

A. I did not.

X Q. 141. When did you last see that book?

A. I do not know.

X Q. 142. At how late a date do you remember having seen it?

A. I can't tell.

X Q. 143. Did you keep books of accounts after Fargo left you?

A. I did.

X Q. 144. Where are those books?

A. I don't know as I should have said books; I had a book; it is at my home.

X Q. 145. What kind of a book is it? Is it a cash-book, day-book, journal, or memorandum book?

A. Well, sir, I am not a book-keeeper; I can only tell you that I kept a book with my accounts in it.

X Q. 146. Are all of your accounts, since the time Mr. Fargo left you, kept in one and the same book?

3056 A. I think they were, for—can't tell how long; for perhaps two or three years; can tell by looking.

X Q. 147. After that have you other books in which you kept your accounts from that down to the present time?

A. I have one other book; then I have two small books in which I kept an account of where I worked every week.

X Q. 148. How many books have you in which you kept your accounts from the time you went into Buxtons' shop until you ceased to do business with them or either of them?

A. I think I had but one; Fargo and I had one, then I had one.

X Q. 149. What books did you refer to in answer to cross-question 147?

A. Two small books, with that book.

X Q. 150. Do either of those three books you there refer to entertain accounts against the Buxtons or either of them during the time you were there employed upon their premises on Main St.?

A. But one of them.

X Q. 151. In answer to cross-question 104, given this morning, you say: "I went home and looked at my books and saw there charges—a long list of them—for doing that work in 1859." Please say what books you refer to.

A. The plural you put on; you said books; it should be book.

X Q. 152. Then, if I correctly understand you, you have but one book in which you kept accounts during the time you worked
3057 for and occupied any portion of the premises of the Buxtons'?

A. I had but one book after Fargo went out until I left Buxtons' shop.

X Q. 153. And are all of your accounts during that period in that one book?

A. All that I know of.

X Q. 154. And did you ever have during that time any other book in which you kept accounts?

A. I don't remember of having any other.

X Q. 155. Will you, during our next adjournment, get this book of accounts, and produce it before the notary and point out to him, so that he may put it upon the records, the items which enable you to fix the dates as you have stated?

A. Well, my book would be a pretty poor book to show to gentlemen—I ain't scholar enough.

X Q. 156. Will you or will you not produce that book?

A. I am willing the notary should go down to my home and see it; I don't want to show my poor writing and spelling; I am willing the notary should go down and see it; I don't want to be made a laughing stock of.

3058 X Q. 157. Will you now produce that book, as requested?

A. I will bring it up when I come.

X Q. 158. What became of the book or books in which the accounts of Adams & Fargo were kept?

A. I have answered that two or three times; I will answer it again; I have looked for it and cannot find it.

X Q. 159. Have you ever had it since the dissolution of the firm?

A. I think I did.

X Q. 160. Where does the Mr. Fargo reside who was in business with you, and what was his given name?

A. Silas T. Fargo; resides in the south part of the village, somewhere near the grist-mill, in one of those houses; don't know exactly where.

X Q. 161. You have spoken of a deaf brother who brought water for your engine; is he still living?

A. He is not living.

X Q. 162. How long has he been dead?

A. I can't tell without going home; somewhere about eight years.

X Q. 163. What was the size of the holes you drilled in
3059 the iron pipe, as you have testified, in 1858?

A. Somewhere from a quarter to three-eighths of an inch; it might have been five-sixteenths. Then we had other drills, but they were not drills to drill pipe with; drills of different sizes.

X Q. 164. How many holes did you drill in that pipe?

A. I don't know how many.

X Q. 165. Can you give an estimate of the number?

A. There might have been eighteen, twenty, or twenty-four; I can't tell.

X Q. 166. Is it your best recollection that one of those numbers would be correct?

A. My idea now is that there might have been six holes drilled right along upon the four different quarters. That is the way they were drilled on the —.

X Q. 167. Were you not in the habit of and did you not drill other pipes about the same time, and may you not have got some other pipe and drilling mixed with this?

A. That was the first pipe that I ever drilled, and I should think it was some time after that before I knew about any others being drilled.

X Q. 168. Was there any gauze, perforated brass or tin, or other kind of strainer put over these holes?

A. Not that I know of.

X Q. 169. What do you know about the soil where that pipe was put down? Was it clay, loam, sand, gravel, or otherwise?

A. I have dug around a number of places here on these flats, and
the soil wherever I have dug has been a little hard on the
3060 top where I have dug for a foot or eighteen inches; then you
come into what I would term it (I don't know what you
would term it) a sort of made land from the creek. The creek has run in different positions all around here that would be from two to four feet deep around different places; then you come into a streak of gravel that varies in thickness. When you go through that you come into the quicksand. It is pretty much all over there that way. The gravel is where you get the water.

X Q. 170. How far is it from the surface of the earth down to this quicksand?

A. That varies. In some places they have drawn in a good deal of dirt. I dug some—let's see—it must have been some four or five rods west and then south; I don't know the exact distance, but where I built a shop I dug about four feet deep and came on to this gravel; then I went about four inches, — carried me through the gravel into the quicksand, that was most impossible to stand on.

The parties here postponed further cross-examination of this witness at 2 o'clock p. m.

At 2 o'clock p. m. parties met pursuant to postponement.

X Q. 171. Do you remember a tank that was sunk in the ground back of Buxtons' blacksmith shop and was supplied with water from the race?

A. I don't know as I would call it by that name. I called it a cistern—a large cistern.

X Q. 172. Was that tank or cistern put in while you were there?

3061 A. I did not see it put down, but I saw it out there before it was put in. I was to work around there, and afterwards knew it was put in.

X Q. 173. Did you see a hole dug in the ground to put that cistern into?

A. I have no recollection of seeing it done.

X Q. 174. Did you make or assist in making that cistern?

A. I did not.

X Q. 175. Do you remember when that cistern was put in? If so, please give us the date.

A. I can't tell.

X Q. 176. Did you see a ditch dug from the race to the point where that cistern was placed?

A. I was out of town a few days and don't remember of seeing it done, but saw it afterwards, but knew it was done.

X Q. 177. Were you away and out of town at the time it was done?

A. My opinion is I was, because I didn't see them in the act of doing it; I was away at times, just as any one is.

X Q. 178. Then you cannot swear positively that you was out of town at the time or that you did not see it put in, but only that you do not remember it; is that so?

A. I can only answer it in this way: I saw the cistern before it was put down, but did not see men putting it down. I have no recollection of seeing the ditch dug and couldn't tell which side of the shop the ditch run, whether on the north or on the south side; I have no recollection of seeing it done and think that I didn't see it.

X Q. 179. About how large was this cistern? Give its
3062 hight and diameter, to the best of your recollection.

A. In diameter it was, I should think, about five feet, so that they could take a large wheel and drop it right in; not far from four feet high; might have been less; don't think it was over that.

X Q. 180. Did you see or have anything to do with making or laying a wooden pipe from the race to that cistern?

A. I never had anything to do with it whatever; don't know as I lifted a finger.

X Q. 181. Did you know of any other well on the premises than the one you have spoken of?

A. Yes.

X Q. 182. Please describe it and say where it was.

A. It was south of the blacksmith shop, a little east of the corner, a dug well stoned up.

X Q. 183. Did you ever use that well?

A. Some.

X Q. 184. What was the depth and diameter of that well?

A. I don't know; I drawed water with a pole; I don't know how large it was; I should think it was some eight feet from the pole; I can't tell the diameter; it might be ten feet, perhaps a little over.

X Q. 185. Did you ever use a pump in drawing water from that dug and stoned well?

A. I never did.

X Q. 186. Did you ever use a pump on or attached to that well?

A. I have no recollection of ever seeing a pump to that well.

X Q. 187. How far was this dug well from the tube you say was driven into the ground for a well?

3063 A. My opinion is that it was from twenty to thirty feet; can't tell exactly; the dug well was south and a little east of the tube well.

X Q. 187½. What was the internal diameter of the tube into which you drilled the holes and which you say was afterwards inserted into the earth?

A. I don't know exactly; my opinion, it was inch and a half.

X Q. 188. Did you ever see that tube again taken out of the earth or after it was taken out?

A. I do not know.

X Q. 189. What was the length of the crowbar which you say was used in making a hole to put that pipe into?

A. I did not measure and don't know the length of it; I know that it was longer than a common bar.

X Q. 190. Give us your best judgment as to its length?

A. I can't tell you anything about the length, because I never measured it.

X Q. 191. In answer to direct question 25 you said they had a long crowbar, a very long one. Now, will you please give us some idea of what you mean by that expression?

A. When the bar stood there there was quite a number of the hands stood there and they made some comments on so long a bar, and the boys made some vulgar expressions in having so long a one.

X Q. 192. What was the shape of this bar; was it round, square, all the way of a size, or did it taper?

3064 A. I can't swear positive; it was not all the way of a size; smaller at the top.

X Q. 193. How and where did this bar stand when those remarks were made about it?

A. It stood leaning against the shop.

X Q. 194. Was its top as high as your waiste, your shoulder, or your head?

A. It was higher than either as it stood there.

X Q. 195. Then this was a very uncommon crowbar, was it not?

A. I suppose they had welded on a piece of iron to make it longer for that use.

X Q. 196. Question repeated.

A. It was longer than a common one.

X Q. 197. Do you know that they had welded on a piece of iron to make it longer for that purpose?

A. I do not.

X Q. 198. Then was it or was it not an uncommon crowbar as you saw it?

A. In length, I think, it was uncommon from what I had been used to seeing.

X Q. 199. Did you see this bar used in making the hole into which this pipe was put?

A. I think I did.

X Q. 200. Did you see the hole after it was made before the pipe was put in?

A. I can't tell you; I was not there all the time.

X Q. 201. Then you do not know the depth of the hole made by that bar or its diameter?

A. I do not.

3065 X Q. 202. When did you first see that pipe after it was put in the hole?

A. I can't tell; I was out, back and forth, frequently.

X Q. 203. Was the piece of pipe into which you drilled holes a new piece or had it been previously used?

A. I don't know.

X Q. 204. Was it entire in one piece, or were there two or more pieces joined together?

A. I think it was one piece.

X Q. 205. Do you know where that pipe came from or anything of it previous to the time of your drilling it?

A. It was first brought in to me to turn a plug to fit; that is the first I knew anything about it.

X Q. 206. And you are entirely unable to tell from its appearance whether or not it had been previously used?

A. My impression is that it was a new pipe, but it might have been used for something; can't say.

X Q. 207. Was there at the time that pipe was brought to you to drill those holes a screw thread cut upon either end of that pipe?

A. There was not on the lower end; I don't know whether there was on the other end at that time or not.

X Q. 208. What was the lower end when it was brought to you? Please explain.

A. It was cut square across.

X Q. 209. What was the upper end?

A. I don't know; I had nothing to do with the upper end.

X Q. 210. Was there or was there not any coupling attached to this pipe?

3066 A. I could not tell; I have seen so many pipes with couplings and without I couldn't tell how that was.

X Q. 211. How near to the end of the pipe did you drill any of those holes?

A. The first tier around I drilled right into the plug; might have been two inches.

X Q. 212. Then, if I understand you correctly, you made and inserted the plug before drilling the holes?

A. Yes; I put in the plug before I drilled.

X Q. 213. How were those holes used that you drilled into the plug?

A. Well, I don't know that they were used, unless the plug was got out some.

X Q. 214. Who were the parties who were standing around at the time those remarks were being made about that crowbar? Please name them all.

A. I can't name them. They were hands that worked for the Buxtons, some of them helpers. I don't know who they were at that time.

X Q. 215. On your direct examination you said, "There was a good deal of laughing about the well." What caused that laughter?

A. To know how they were a-going to get water by driving a pipe down. They did not generally believe it; I did not, for one.

X Q. 216. You also said that it was used for a number of days for pumping water and gravel. How many days was it so used?

A. I don't know. The hands would go out and take hold of the pump every little while and pump.

3067 X Q. 217. How much gravel was pumped out?

A. I don't know; the longer they pumped the more water they got and the less gravel.

X Q. 218. What was the size of the gravel thus pumped up?

A. If I could go and get a handful I could tell you; it was fine, a fine sort of gravel.

X Q. 219. Was it as large as number 4 shot?

A. I don't know how large number 4 shot is; I never used any shot.

X Q. 220. Can't you compare it to something to give us an idea of its size?

A. Some of it was probably *was* as large as the head of a good-sized pin; some of it was larger and smaller; some of it was white and some black.

X Q. 221. How long was it before the water became so that you could use it?

A. I don't know, sir, how long it was.

X Q. 222. Do you know, of your own knowledge, whether or not there was a smaller pipe, either of lead or iron, attached to that pump and put down inside of the pipe you have described?

A. I did not.

X Q. 223. Why did you use water from this well instead of from the dug well?

A. The dug well became dry.

X Q. 224. Was it dipped dry?

A. It got dry so *did down* that you could *and* get a half a pailful*l* at a time, and finally it got so that you could not get any.

X Q. 225. For how many weeks was this well dry?

A. I don't know; it was only for a week or two that the water was out of the race that I had occasion to use it. 3068

X Q. 226. Are you able now, after having referred to your books and had time to refresh your memory, to give the date when you traded the engine you bought of Colligan in 1858 for a heavier one, which you put in the same place?

A. I can't give the date of it.

X Q. 227. Had you ever, previous to the time when you say you drilled that pipe, *ever* done any work upon gas pipe, such as cutting or screwing?

A. I never had, without they were little pipes, gas pipes, around my engine. I repaired them two or three times.

X Q. 228. When did you repair those gas pipes around your engine?

A. There was a pipe that went from the heater down to the check valve that froze every winter; that I had to repair.

X Q. 229. Had you reference to the pipes on the engine that you had of Colligan?

A. I have.

X Q. 230. Were those repairs made previous to your drilling this pipe?

A. I can't tell. I had repairs all along of different things.

X Q. 231. Then you are totally unable to say whether you had done any work on pipes previous to your drilling this pipe of which you have testified, are you?

A. I don't know that I ever had anything to do with pipes before.

X Q. 232. Do you know and can you swear positively that
3069 previous to the year 1859 gas pipe of inch and a quarter,
inch and a half, or larger diameter was in use and was cut
and screwed in any shop by any parties in this village of Warsaw?

A. I don't know anything about it; I did not see any cut.

X Q. 233. Did you see any tools in Warsaw previous to 1859 that were adapted to and were used for cutting *cutting* gas pipes and screwingg as pipe of inch and a quarter and upwards, internal diameter?

A. I don't know that I did.

X Q. 234. Do you know, Mr. Adams, of your own knowledge, whether any hardware or other stores in Warsaw kept gas pipe of inch and a quarter or greater, internal diameter, for sale previous to the year 1859?

A. I don't anything about it.

X Q. 235. Did you at the time you dissolved partnership with Silas Fargo have on hand the whole number of revolving rakes which you say you had manufactured under that partnership; or, if not, how many of them did you have?

A. We had sold and traded some; I don't know how many.

X Q. 236. Are you willing to and do you state positively that you never knew of a pump being used in the dug well of which you have testified?

A. That was the first one I ever heard anything about.

X Q. 237. Where and how did you procure water when you were in the shop of Breck, Gates & Herd?

A. I did not have to get any water.

X Q. 238. Where did they get the water which supplied
3070 their boilers and engine?

A. They dug a well near their engines—between their engine and boiler—and that did not furnish them enough, so they dug another and had two wells, and they both worked into one.

X Q. 239. How far apart were those two wells, what was their depth and diameter, and how was the water procured from them?

A. I don't know how far apart they were, nor how big they were, or how deep they were; they had a pipe that went to their suction in their engine; I think they had a hand pump to fill their engine when it was empty; I recollect they used a chain pump to fill their boiler when it was empty.

X Q. 240. Were those wells inside their buildings, and did they get their full supply of water from them?

A. They were inside the engine-room; I think they got their full supply of water from them; don't know of th*ere* getting any anywhere else.

X Q. 241. When and where did you next see a tube well after this one you saw at Buxton's, which you have said was the first one you ever saw?

A. I saw some drove along down on the street here when they were abuilding their brick buildings along; I can't tell when.

X Q. 242. Tell us, as near as you can recollect, when that was.

A. I can't tell; there was one put down in the barn adjoining me while Leonard Smith owned the property, but what time I cannot tell.

X Q. 243. Who put that well down?

A. I don't know who it was.

X Q. 244. Can you not tell us within two or three years
3071 when you first saw one of these wells after the one you have
testified of at Buxton's?

A. I can't tell anything about —. I see them put in *a* different places. I paid no attention to them.

X Q. 245. Do you now or have you ever owned or used a driven well?

A. No, sir; I undertook to drive one, but couldn't get any water.

X Q. 246. Who first called your attention to the Buxton well as being similar to the driven wells since put down in this place?

A. I can't tell who it was, or who did.

X Q. 247. When was your attention first so called?

A. I don't know; it might have been three or four years ago, and might not have — two.

X Q. 248. And still, Mr. Adams, your memory is not sufficiently good as to enable you to recollect so long ago as four or two years who called your attention to a matter concerning which you have here testified to so many particulars which occurred, as you say, twenty-two years since? Is that correct?

A. I think it is an unfair question for me to doubt my memory, and all such things. I can't remember everything.

X Q. 249. Now, Mr. Adams, when you fail to remember the date
when you purchased a large engine from Mr. Colligan at a date
some years later than the one of which you have given so
3072 precise a date, do you not think it charitable to refer such a
failure to testify of those facts to a defect in your memory
rather than to any other cause?

A. I don't remember that the question was asked me when we made that trade. It might have been; can't say.

X Q. 250. Question repeated. I want a direct answer. Please answer direct yes or no.

A. I didn't suppose it was.

X Q. 251. Question repeated. I want a direct answer.

A. I don't know how I can answer it yes or no.

X Q. 252. Then you do not know what to think in regard to that question. Am I correct?

A. I don't know.

The further cross-examination of this witness was here adjourned to Feb'y 26, 1880, 9 o'clock a. m.

February 26—9 o'clock a. m.

Parties met pursuant to adjournment.

By Mr. Hurlbut:

X Q. 253. Will you swear positively, Mr. Adams, that you have testified to all the wells of any kind or description that were there on Main St. on C & T. Buxtons' premises between the years 1857 and 1868?

A. I have sworn to all I have been asked to.

X Q. 254. Question repeated; and will you please answer it yes or no?

A. No; I haven't testified to all.

X Q. 255. How long did you work in the Buxton shop for both or for either of them?

3073 A. I commenced there somewhere in the spring, we will say, about 1858. I don't now recollect the exact year that I went out, for I built a shop and went there somewhere in 1870, and put in an engine.

X Q. 256. Who owned the engine that you referred to in your last answer?

A. I owned one-half of it and Buxton, Cuppen & Williams owned the other half of it until the time I moved.

X Q. 257. Can you tell me the year that that was first purchased?

A. It was bought and then I purchased it again; when it was new was, I think, in 1869.

X Q. 258. That is your best recollection now, is it?

A. Yes, sir.

X Q. 259. In the summer or winter season of that year?

A. I think it was in the summer; I have- any doubt but what it was some time in warm weather.

X Q. 260. You have testified how water was obtained for the first engine run by you on Buxtons' premises. Was there any other way that you obtained water for the engine except from the race and the half barrel that was used for the exhaust water?

A. We changed the pipes; otherwise there was no other way.

X Q. 261. What pipes did you change?

A. The suction pipe.

X Q. 262. About how long after you put in the engine was it before you so changed the suction pipe?

A. I did it at the time I put the engine in—the second engine.

X Q. 263. Aside from that there was no material change made in the suction pipes, was there?

A. I don't know that there was.

3074 X Q. 264. Is it your best recollection that there was not? Please answer yes or no.

A. It is that there was none.

X Q. 265. Where was this tub or half barrel, as it has been called, used for the exhaust water, located?

A. It was on the west side of the engine, a little forward of the center of the engine, towards the mouth of the engine; it set right up near the engine, on the same floor with it.

X Q. 266. You have testified that you pumped water out of such half barrel or tub. Did you use a pump that was attached to the engine?

A. I had a pipe; that was all the pump that I used at that time.

X Q. 267. Did you ever use any pump there for that purpose, other than the engine pump, before obtaining this second engine?

A. I used a pump for to fill the boiler when it was cold.

X Q. 268. What kind of a pump was that, and when did you first commence using it?

A. It was an iron pump; when I bought the first engine of Colligan.

X Q. 269. From what receptacle did you pump the water with that pump for the engine?

A. There was a barrel sunk right down by the wall; the pipe went from the race into the barrel; then a pipe went down into the barrel that drawed the water up.

X Q. 270. Where did you get that pump?

—. I bought the pump at the hardware — here in town; I
3075 can't tell you; I think I bought it of Morris Buxton & Co.;
might have bought it of Gates & Garetree; it was one of
those firms.

X Q. 271. Was it a pitcher-spout pump, if you know?

A. I know it was not.

X Q. 272. What was the shape of the spout to the pump?

A. The spout was round; came out; it might have been eight or ten inches; the spout was round; then bent over with a hook on the top; a common cistern pump; it was one of Davis' pumps, of Seneca Falls.

X Q. 273. How did you connect that pump with the water in the barrel below?

A. There was a piece of brass that came down, perhaps, three inches; there was a piece of brass that came down with a flange on the top; a screw coupling that went around this brass and came up to or over the flange; that screw screwed right onto the pump; we used to put a piece of rubber between the flange and the pump; then soldered the lead pipe onto that piece of brass pipe that went down and then screwed it on; the lead pipe went down into the barrel.

X Q. 274. About how many years was that pump that you have last described used in that place in connection with the engine?

At I think it was used all the time I was in that shop; I got new valves to it; I used lead pipe; I might have got some iron at different times.

X Q. 275. Will you please give me a description of the pump that you first saw on this tube well of the Buxtons you have testified to?

A. It was a pump of the same kind, but two sizes larger.

X Q. 276. Was it one of the Davis manufacture, of Seneca
3076 Falls?

A. I won't swear positive that it was, but I think it was; I know it was a larger pump.

X Q. 277. The same shape spout that was on your Davis pump?

A. I think it was; I never saw the pitcher spout until years afterwards.

X Q. 278. Of what material was the tube that came out of the pump barrel at the bottom of the Davis pump that you used?

A. That was iron and had a screw on it.

X Q. 279. Do you know where the Buxtons got that pump?

A. I do not.

X Q. 280. From its appearance, when you first saw it, will you testify that it was a new one or had it been used before?

A. I couldn't tell whether it was or not; it might have been used or it might not.

X Q. 281. Where was that pump when you first saw it, as you now remember it?

A. I can't tell; it was somewhere about the pipe; whether or not it was in some men's hands, I don't know; it was somewhere about the Buxtons' premises.

X Q. 283. What was done with the pump that you saw?

A. The pump was screwed on the pipe.

X Q. 284. Where?

A. Onto the top.

X Q. 285. Did you see it screwed on?

A. I don't think I did the first time; it was screwed off and on two or three times.

X Q. 286. How many times did you see it screwed off?
3077 —. I can't tell; it might have been twice and it might not have been but once.

X Q. 287. How many times will you swear positively that you saw it screwed on?

A. Well, sir, I will swear once.

X Q. 288. You say you didn't see it screwed on the first time?

A. I don't think I did, for I want out there all the time.

X Q. 289. What part of the time were you out there?

A. I don't know.

X Q. 290. Give us the time, as near as you can.

A. I might have been there ten or fifteen minutes a half dozen times a day; curiosity led me out.

X Q. 291. Will you swear positively that you were out there, as you have testified, to exceed fifteen minutes that day? Please answer yes or no.

A. Yes; I know I was.

X Q. 292. Who took the pipe from your shop after you had drilled the holes, as you have testified to?

A. I do not know.

X Q. 293. I understood you to say that you did not go out of the shop until some time afterward; is that so?

A. I don't know that I said so; it might have been.

X Q. 294. Did you or not go out of your shop when the pipe was taken out?

A. My impression is that I did not, but I can't say.

X Q. 295. How long was it before you did go out?

A. I couldn't tell anything about it.

X Q. 296. Give us some idea, Mr. Adams.

3078 A. I had to see to my engine that the fire and water was all right once in half an hour; I might have went out and I might not before seeing to my engine.

X Q. 297. In making your last answer did you testify from your habit and custom or from your present knowledge of what did occur at that time?

A. From the necessity of the case—tending to my engine.

X Q. 298. Then do you mean to be understood as testifying that it was not from your actual knowledge, but from your habit and custom that you made such answer?

A. Well, sir; it was from my habit and custom in taking care of my engine; that was my first care—my engine was.

X Q. 299. Was the pump on the pipe when you first saw it?

A. I think not.

X Q. 300. Will you swear positively that it was not? Please answer directly yes or no.

A. I won't swear positive.

X Q. 301. You have testified that you could not tell the depth of the hole made by the crowbar because you did not see it made. Was the pipe in it when you first saw it?

3079 A. I don't know why I have got to keep answering your questions, but I will say for your accommodation that I didn't see the hole; the pipe was in it.

X Q. 302. And the pump was on it?

A. I think it was not when I first saw it.

X Q. 303. Will you swear positively that it was not? Please answer directly.

A. It was not when I first saw it.

X Q. 304. Will you—can you name any man who was there that day who was in the employ of the Buxtons?

A. I cannot name any particular one.

X Q. 305. How many iron lathes did Mr. Benson have that he used in the shops of C. & T. Buxton about 1859, as you had testified?

A. He had one.

X Q. 306. Please describe it.

A. I don't know as I can describe it; I can tell some of it. It was a frame about ten feet, I should think, long; it might have been twelve, but I should think about ten feet long, with two side pieces to constitute the frame. I can't tell how the ends were put on. I don't know whether the sides were all iron or not—the carriage iron and iron ways; think it was over a foot from the centre to the way, so that it would swing about two feet; don't know how far it was between centres; might have been six feet, eight feet, or ten; can't tell. He turned a shaft ten feet long for me at one time. He run it as a back and single geared lathe, both ways, in cutting screws, &c.

3080 X Q. 307. Give the date that it was first put into the Buxtons' shop.

A. I can't do it.

X Q 308. As near as you can.

A. Some time in 1859, I think; am not positive.

X Q. 309. You have spoken of another well on the Buxtons' premises "that you knew of." When was that put down?

A. I don't know, sir.

X Q. 310. About when?

A. I don't know anything about when it was put down.

X Q. 311. Please give your best judgment of the time when it was put down.

A. I have no idea. It might have been put down before I was born. I have no idea about it.

X Q. 312. Where was it located?

A. It was located near the end of the Baptists' shed, on the north end.

X Q. 313. Do you know of any other well on the Buxtons' premises?

A. I did not.

X Q. 314. Please state the number of wells that the Buxtons had or used there on Main St. between the years 1857 and 1860.

A. I can't do it; I don't know how many they had.

X Q. 315. Please state the number that you have any knowledge of.

A. I don't know as they had but two; don't know when the other was put down.

X Q. 316. When you say the other one you refer to the
3081 one by the Baptist church?

A. Yes, sir; I don't know when it was put down. I think it was dug and stoned up.

X Q. 317. How long was Benson there in Buxtons' shop?

A. He was there between one and two years. I don't — how long; kept no account.

X Q. 318. When was it that you first saw this tub or cistern that was sunk west of the blacksmith shop?

A. I don't know when I first saw it.

X Q. 319. Please state the year as near as you can.

A. I can't tell; it would be merely guess-work. It was nothing I had anything to do with.

X Q. 320. Who do you remember first called your attention to the significance of this well in connection with the driven wells afterwards put down, as having any bearing upon the patented driven well?

A. I answered that question yesterday, and I will answer it the same way now. I heard different individuals speak of it, but who, I cannot tell.

X Q. 321. Who, as you now remember, spoke to you first about it?

A. I have talked with Franklin Hurd for one, and Spencer Cronkste for one, and they with me. I have heard a good many; can't tell all. Mr. Ketchum — different ones talked with me about it—Norton Bradish and John Sprague. I can't tell who else. I have heard it talked all over the village, more or less.

3082 X Q. 322. I see you have not mentioned either the name of Timothy H. Buxton or Chauncey C. Buxton. Do you mean to say that you cannot tell whether they have talked with you about the significance of this well?

A. I did not say such a thing. They were not the first that talked with me. I mean to say that.

X Q. 323. Have you talked with the Buxtons, mentioned, in regard to the significance of this well?

A. I have talked with the Buxtons about the well, but not in bearing to anything, as I know of.

X Q. 324. Hav'n't you examined with Timothy H. Buxton or been present when he examined his account books kept years ago in relation to this well?

A. I have been there and asked him some questions in regard to the dates of getting that engine—the first engine.

X Q. 325. You asked him then the date that you got the first engine, for the reason that you did not know exactly, didn't you?

A. No; I did not.

X Q. 326. Why did you ask him?

A. I wanted to know about certain moneys that he let me have to pay for it.

X Q. 327. Did not you swear, in answer to cross-question 324, that you asked him some questions in regard to the dates of getting that engine, the first engine; and was that answer true?

A. Yes; that was true.

The further cross-examination of the witness postponed until 2 o'clock p. m.

3083 At 2 o'clock p. m., parties appeared pursuant to postponement.

X Q. 326. Is there any entry in your account-book produced here, or in any other account-book in your possession, in relation to the purchase of either of the engines you used on the Buxton premises?

A. I don't remember of only one case on my books where I settled with Buxtons that speaks of the engine. Here it is: "Settled September 6th, 1869; balance due me after paying for one-half of engine and two notes given up, $96.04."

C. Q. 327. Is that all?

A. All that I remember of; I have looked the book through and it is the only one I find.

X Q. 328. In answer to cross-question 326 you say you asked Mr. Buxton about "certain moneys he let me have to pay for it," referring to that first engine. What did you want to know about these moneys, and why did you ask that question?

A. I did not remember whether he paid the money to me direct, or whether he paid part of it to Mr. Colligan himself.

X Q. 329. What was your object in making that inquiry; why did you wish to know whether he paid a portion or you paid all?

A. I knew he went to Buffalo with me, and that I was holding notes against him for this money; also that he had money of Fargo's, and I didn't *not* know whether he went out with me at that time and paid the money, part of it to Colligan himself or not.

3084 X Q. 330. What object had you in view in obtaining this information from Mr. Buxton?

A. Because you had called it out of me here.

X Q. 331. And were you unable to answer the question we had asked you until you got this information from Mr. Buxton?

A. I was not satisfied wholly in my own mind.

X Q. 332. Not wholly satisfied as to what?

A. How all the money was paid, aside from the Painter money.

X Q. 333. What information did you get from Mr. Buxton in rerelation to it?

A. He showed that either he paid me or Colligan at such and such dates the amount of money; it was a little less than $400, in two or three times near together; don't remember the dates.

X Q. 334. And were you unable to give these particulars until you had consulted Mr. Buxton?

A. I think I was.

X Q. 335. Do you know the party defendant in this suit?

A. I do not.

X Q. 336. Were you subpœnaed to attend this examination?

A. No, sir.

X Q. 337. Have you been paid by any one as a witness in this case?

A. I have not.

X Q. 338. Have you received letters from any parties in relation to the well, and your knowledge of it, said to have been put down by the Buxtons in 1858?

A. I have received two.

3085 X Q. 339. From who and when?

A. I don't recollect the name of the men; one was from New Jersey and the other from Arkansas; I think it was Arkansas; I paid no attention to them and never answered them, but none from this concern; received the one from the East I should think about four weeks ago and the other one about two weeks ago.

X Q. 340. Do you know of other parties having received similar letters on the same subject?

A. Mr. Miller told me he had received letters.

X Q. 341. Any others?

A. T. H. Buxton; that's all I know of.

X Q. 342. Have you had during the past two or three years conversations with Timothy or Chancy Buxton in relation to this well and the date when it was made?

A. I have talked with Timothy Buxton.

X Q. 343. Have you not talked with Chancy Buxton also on the subject?

A. Not till within a day or two past.

X Q. 344. Had you, from the time of the putting down this well up to within two or three years, had conversations in regard to it with either of those men or any other persons you can name?

A. I don't know.

X Q. 345. What was the purport of the conversation you had with Timothy H. Buxton on the subject?

A. I can't tell; talked about a great many things.

3086 X Q. 346. Did you have any discussion or comparison of notes in relation to the time when that well was put down, the manner of its making, or anything concerning its making?

A. We did talk about the time it was put down.

X Q. 347. Please relate, as near as you can, what passed between you.

A. I cannot tell what passed between us.

X Q. 348. Can you not tell anything that passed between you on that subject?

A. Well, I can't tell what passed between us; I spoke of turning the plug to him and of drilling the holes in the pipe, also of the long crowbar; I don't know as anything else.

X Q. 359. Did you ever turn more than the one plug or drill more than the one pipe for the purpose of making a well?

A. I don't remember of turning any more plugs, but I drilled a good many pipes.

X Q. 350. Will you swear positively, Mr. Adams, that you did turned but the one plug to put in the lower end of a pipe to be used as a driven well?

A. I will not.

X Q. 351. Will you swear that you ever did?

—. No, sir, I will not; I know that they had iron plugs.

X Q. 352. Did you turn any iron plugs?

A. No, sir.

X Q. 353. Then why did you mention iron plug in answer to a question to which it was not responsive?

3087 A. Because they were brought to me and showed me, the plugs, in connection with the pipes; they were cast plugs.

X Q. 354. When did you drill these many pipes that you have just mentioned as having done?

A. I don't know.

X Q. 355. And are those pipes what you refer to as having had iron plugs in them?

A. I don't know.

X Q. 356. Can you tell us, Mr. Adams, when you first drilled any of those many iron pipes which you have spoken of or who you drilled them for?

A. I cannot.

3088 MARCH 25TH—10 o'clock a. m.

Parties met pursuant to adjournment, and the redirect examination of Mr. ADAMS commenced.

R. D. Q. 1. Mr. Adams, you spoke of paying some money to Mr. Colligan at the time you got this engine, money a part of which you got of Mr. Painter; where did you get the rest of it?

A. The C. & T. Buxtons; I was holding notes against them, and so was Fargo; he paid part and I part of it; the money came directly from the Buxtons.

Q. 2. Did they let you have it or pay it to Colligan?

A. I can't say which.

Q. 3. Then, as I understand you, you don't know whether you paid the money directly to Colligan, or Buxton paid it?

A. My opinion is that Timothy Buxton paid the money directly to Colligan.

Q. 4. Are you able to say whether it was all paid at one time or not?

A. I am not.

Q. 5. Did either of the Buxtons go with you to Colligan when you were bargaining or negotiating for this engine?

A. Yes; they did; Timothy went.

Q. 6. Did he assist you in purchasing the engine in any way?

3089 A. We looked the engine over together; also a planer at the same time; I don't know of anything more that he done.

Q. 7. Did Buxton have anything to do with arranging the amount, time, and mode of payment with Colligan, that you remember of; if so, what?

A. I don't know *know* that he made any; I know I paid it.

Q. 8. Describe how you paid it, then.

A. I paid it by giving up notes that I held against Buxton to Buxton.

Q. 9. And he paid the money to Colligan, did he?

A. He paid it; I don't know when.

Q. 10. Tell us about this transaction between you and Painter—about this note that you let Painter have; tell us all about that, Mr. Adams.

A. Mr. Painter came to me and Fargo; we were together; he knew that we were agoing to give Mr. Colligan a note due in a year for a certain amount; he told us to take a certain amount of money to Mr. Colligan; if he would take the money in room of the note to bring the note back to him; there was some share—I don't remember, but I should think about $10.00, but I don't remember exactly; we carried the money and the note both out to Buffalo; we told Mr. Colligan what we had brought; he said he would be glad of the money because he was a little tight up; that was the remark that was made. 3090

Q. 11. What did you do with the money you got of Painter?

A. Gave it to Mr. Colligan.

Q. 12. What was the amount, as near as you can give it? I mean this Painter money?

A. I can't tell exactly; think it was about $125; might have varied some; I can't tell.

Q. 13. What did you do with the note?

A. We brought it back; gave it to Mr. Painter.

Q. 14. Now, how was the balance on that engine paid to Colligan, aside from that note, and by whom?

A. It is a question I hardly know how to answer. It was the same as money from *from* me *me* and Fargo *me.* I think Buxton paid the money to Colligan.

Q. 15. In your answer to cross-question 58 you said you were in the planing-mill owned by Breck, Gates & Hurd; that you worked there for C. & T. Buxton. Now, what year did you commence working there for Buxton and how long did you continue there?

A. I think it was '56 *that* and sometimes there between a year and a half and two years; think I was there two winters.

3091 Q. 16. How soon after you quit there was it that you put in this Colligan engine into Buxtons' shop?

A. I don't know.

Q. 17. Tell as near as you can.

A. I think I was making negotiations with Colligan before I quit; can't tell how soon it was.

Q. 18. In your answer to cross-question 82 you state that the last time that Breck, Gates & Herd' smill was burned "was, as you think, in 1854." Now, were you not mistaken as to the time?

A. I know I was mistaken.

Q. 19. If you was mistaken, when was that mill burned—that mill?

A. It was burned in 1865.

Q. 20. When was the first one burned?

A. Burned in '59.

Q. 21. In your answer to cross-question 167 you said that the pipe you drilled for the well put down by Buxton in 1858 "was the first pipe I ever drilled, and I should think it was some time after that before I knew of any other being drilled." Now, how long was it after you drilled that pipe before you knew of another being drilled?

A. I can't tell; might have been a year. My opinion is it was as much as a year; that's my best judgment.

3092 Q. 22. You say, Mr. Adams, that you think you saw the bar that was used in putting down this well. Now, tell us how it was used.

A. I don't know, as I saw it. I saw it leaning up against the building where they were agoing to put down the well. I saw different ones take hold of it, jam it into the ground, and work it a little. I don't know as I see; I "want" there much of the time.

Q. 23. You say you saw them jam it into the ground. How did they jam it in?

A. They would take it in their hands and fetch it down, then take it up and fetch it down again and work it. I " want " there much of the time.

Q. 24. When you say " they fetched it down," what do you mean ?

A. I mean they would take the bar in their hands and jam it down into the ground.

Q. 25. Did you see them driving the pipe down ?

A. I think I didn't see them.

Q. 26. Did you ever know a well being made by putting down an iron tube into the ground and then putting down another pipe inside of that, attached to a pump ?

A. I never did.

Q. 27. Have you seen many of these drive wells, Mr. Adams ?

A. I have seen some ; I might have seen a dozen, might more.

Q. 28. Did you ever use them anywhere aside from this one in the shop or see them used ?

3093 A. I have used the one in the barn by me every year when my well gives out, when there is dry weather, for a number of years.

Q. 29. Have you ever seen any of these drive wells when they were in the act of putting them down, aside from this of Buxtons' ?

A. I see one undertook to be put down for me, but they did not get water.

Q. 30. Now, Mr. Adams, is there any apparent difference between the drive wells now in use and that put down by Buxtons in 1858 ?

A. The only difference that I know of is that they have iron or steel points, and that was wood.

Q. 31. You say iron points. Where were they used ?

A. At the bottom.

Adjourned until 2 o'clock p. m.

Met pursuant to adjournment.

Q. 32. Mr. Adams, you have testified that you had persons engaged in putting down a drive well for you. What tools were used by them in putting down such drive well ?

A. They used an iron bar, sledge, a piece of wood. I think that is all they used except the pipe they drove down. I think they had a pair of tongs to turn the pipe back and forth when they were driving down.

Q. 33. Did they use any different tools or in any different manner from Buxton in putting down his well ?

3094 A. I don't know ; I know how they did it to this well of mine all the way through.

Q. 34. Tell us how they used those tools you mentioned in putting down your well.

A. They first took the bar and made a hole *they might* 2 or three feet, until they got through the hard surface on top of the ground ; then they took the pipe—that had an iron point—put it into the hole, took a block of wood and put on top, and with a sledge drove on it ; I can't tell you how far they drove it down now. They drove the first piece of pipe down; I should think that piece was about 6 feet long; they screwed another piece onto it; my impression is that was about four feet long; then drove down, I don't know how far, but quite a piece; then took their tongs and turned it around, back and forth; they put the pump on, primed it, and undertook to get water; well, he raised it up some and tried again; then drove down still further, and tried again, and he could get but very little water; when he went down further he went into the quicksand; he said there was but about two inches of gravel, and consequently give it up; could not get water.

Q. 35. Who was engaged in putting down your well?

A. John West.

3095 Q. 36. In your cross-examination you stated that this dug well became dry, and gave that as a reason why you did not get any water from it. Now, can you tell us the occasion on which that dug well became dry?

A. I cannot tell; the year I referred to was in 1858, because I had occasion to use it that year.

Q. 37. Had you ever had occasion to get water from these wells before that year?

A. I had not.

Q. 38. You have stated that you got water a part of the time from the race; can you tell us the condition of the race at that time and why you didn't get water from it?

A. Judge Ferris owned the mill at that time; he notified me that they were agoing to put in a new bulk-head at the mill there, and that the water would be shut out of the race for a couple of weeks, and there was no water in the race.

Q. 39. Do you know whether or not any repairs were made upon the dam which supplied this race with water, or upon the race itsself about the time you have mentioned when the dug well became dry?

A. I do not know whether they were doing any repairs on the dam at that time.

Q. 40. Whereabouts was this bulk-head put in that you speak of?

A. At the end of the race next to the mill, and the waste 3096 run was put in at the same time or repaired near the bulk-head.

Q. 41. Do you know at what time, what year, Ferris went out of the mill?

A. I think it was 1859.

Q. 42. Who succeeded Ferris in the mill there?

A. John Sprague and his father.

Q. 43. Mr. Adams, in your cross-examination 225 you were asked for how long the dug well was dry, and you answered, "I don't know; it was only for a week or two that the water was out of the race that I had occasion to use it." Now, when was this, relative to the time when this bulk-head was put in by Ferris?

A. I can't tell what month it was; that was the time to which I referred—at the time the bulk-head was put in; it might have been dry three months.

Q. 44. When was the drive well put in by Buxton, relative to the time when Ferris put in the bulk-head?

3097 A. I can't tell.

Q. 45. Was it put in before or after the bulk-head was put in?

A. I believe it was put in before.

Q. 46. About how long was it after Ferris put in this bulk-head before it was completed and the water resumed flowing through the race?

3098 A. It was two weeks.

Q. 47. From where did you obtain water for your engine while this bulk-head was being put in?

A. Carried it from the drive well; might have got a little out of the dug well.

Q. 48. Do you know anything about whether this dug well was affected at all by the amount of water in the race or the absence of water?

A. It did not affect the well at all.

Q. 49. Do you know how deep that dug well was?

A. The pole we used to draw it — was about 8 feet long; it was about 8 feet deep.

Q. 50. Did you do any work for Mr. Sprague for his mill, in making or repairing his machinery or in any other way?

A. I did.

Q. 51. What was it?

A. I sawed out the rim for either a breast or overshot wheel; dressed it on my plainer; dressed the buckets or sawed the buckets over. I don't remember anything else in particular.

Q. 52. Was this work done for a new wheel or repairing an old one?

A. A new one.

Q. 53. What year was this work done, Mr. Adams?

A. Done in 1860; I think it was February.

Q. 54. Did you afterwards do any similar work for Sprague?

3099 A. I did not.

Q. 55. Mr. Adams, was this engine that you and Fargo purchased in 1858 repaired at any time by Colligan at Buffalo?

A. It was, or parts of it.

Q. 56. In what year was those repairs made?

A. I think it was in 1866; I have a bill of it, but it "ain't" with me.

Q. 57. Was that engine afterwards at any time replaced by a new one?

A. We traded that engine for a new one.

Q. 58. When was it?

A. I think it was in '69.

Q. 59. You say, "We traded that engine for a new one." Who do you mean by "we?"

A. What I mean by we, Buxton put in a wagon and I the engine, and we got a new engine, and the Buxtons and I owned it together then.

Q. 60. Do you mean by that that you traded the wagon and engine for the new engine?

A. Yes, sir; and gave money "to boot."

Q. 61. You spoke of attaching some pipe to the pump on this engine that you put in — 1858 and running them down into some tubs or parts of barrels sunk in the ground near the race. Did you sink or cause them tubs to be sunk, or was they put in by some other party? State how it was.

A. We—the barrels that was sunk in the ground? I did not put it in.

Q. 62. Who sunk the barrel or tub, if you know?

3100 A. I don't know who did the work; I think Buxton directed it.

X Q. 63. Do you know when that was put in?

A. I do not.

Q. 64. Was it there when you put your engine in, in 1858?

A. It was not.

Q. 65. Do you know how long it was after the engine was put in, in 1858, before this tub was sunk there?

A. Some time in the fall or winter.

Q. 66. When and why did you make the change?

A. We run a lead pipe from the race west 10 or 12 feet; then we bent it and run it up to the engine; at times the race was pretty muddy, and the pipe filled with mud at the elbows; then the barrel was sunk.

Q. 67. Mr. Adams, how many tubs or barrels were sunk there in the ground?

A. There was one put down, and afterwards that was taken up and another put down.

Q. 68. Was it put down in about the same place or near the same place?

A. Yes.

Q. 69. Mr. Adams, are you able to tell, independent of any books or any memoranda, from your own recollection, the year you and Fargo were together?

3101 A. I think I can tell from my own recollection.

Q. 70. Can you tell from your own recollection the year that you drilled the holes in this tube that you afterwards saw Buxton put in the ground in the manner you have described?

A. I think I can.

Q. 71. Mr. Adams, you were asked on your cross-examination if you had talked with Mr. Buxton in regard to the significance of this driven well. You were also asked if you hadn't examined with Timothy H. Buxton or been present when he examined his account books kept years ago in relation to this well, and you answered, "I have been there and asked him *or* some questions in regard to the dates of getting the first engine." Now, Mr. Adams, what were the dates about which you asked him some questions?

A. I think it was about his paying the money to Mr. Colligan; I was not satisfied about that.

Q. 72. Was there any other dates that you asked him about?

A. I don't recollect that there was.

Q. 73. You were asked, Mr. Adams, in cross-question 345, "Have you not talked with Chauncy Buxton on the subject of putting down this well?" And you answered, "Not until within a day or two past." Now, did you know when this well was put down independent of
anything you got from Buxton; did you ask him to find out
3102 when it was put down?

A. I did not ask him anything about when it was put down to find out anything about it; I knew within a month or two of when it was put down; did not know exactly.

Q. 74. You have described the pump used on your engine and given the manufacturer's name. Was the pump used by Buxton on this driven well from the same manufacturer as your pump, if you know?

A. I do not know.

Q. 75. Mr. Adams, would it require any different tools to cut a screw thread on gas pipe so that a pump might be screwed on than are ordinarily found in blacksmith shops; could not the same tools be used in cutting screw thread on pipes that are commonly used in blacksmith shops?

A. I do not know.

An adjournment was here taken until March 26th, at 9 o'clock a. m.

March 26th.—Parties met.

Q. 76. Mr. Adams, in your cross-examination you spoke of repairing some pipes about your engine, made necessary by the water freezing in them. When was it that you made such repairs?

A. I had to repair those pipes every winter, more or less; they would freeze and burst open.

Q. 77. Tell us the first winter when such repairs were necessary?

A. I can't tell; think the very first winter I had it; I had to repair nearly every winter.

Q. 78. Can't you tell the year?

A. I think that '68 and '9—1858-'9; I think nearly every winter after that.

3103 Q. 79. Was it before or after this well of Buxtons was put
down *by* that you made the repairs on the pipe, made neccessary by their freezing?

A. After.

Q. 80. Is there any entry on the book, Mr. Adams, that gives you any information as to the time when this second engine was purchased of Colligan?

A. There is; about the time it was purchased.

Q. 81. On what page is it?

A. Page 85.

Q. 82. What is the entry?

A. "Settled September 6th, 1869, balance due me after paying for one-half of engine, and two notes given up, $96.04; paid ac."

Q. 83. Mr. Adams, have you any bill of Colligan for the repairs on the first engine purchased of him?

A. I have.

Bill produced.

Q. 84. How was that gas pipe mentioned in that bill used; what was it used for?

A. That pipe run through the heater or in the heater about the length of it, and turned and came back and carried the water from that to what I term the check valve—the pipe that went into the boiler.

Redirect here closed.

Recross-examination conducted by Mr. HURLBERT:

Complainants offer in evidence the bill referred to by this witness on his redirect examination *question* in answer to question 83, a copy of which bill is hereto attached, marked Complainants' Exhibit No. 1, E. M. Bartlett, notary public, Warsaw, N. Y. The same is received in evidence.

3104 X Q. 1. Mr. Adams, independently of this bill, Complainant's Exhibit No. 1, and from your own recollection, you would not have been able to give us the exact date of the repairing of that engine, would you? Please answer directly, yes or no.

A. I think I could not.

X Q. 2. Was the engine taken from your shop when the repairs were done referred to in that bill?

A. The whole of it was not; the boiler wasn't taken. In the first place I took off the cylender. I took off the ways; it was all taken except balance wheel, shaft, and boiler; that was sent to Colligan, of Buffalo.

X Q. 3. How much did such repairs cost?

A. The whole repairs—some 80 odd dollars; I think the whole.

X Q. 4. When did you pay that 80 odd dollars?

A. I paid $20 when I took the parts of the engine out there. I sent the parts by railroad, and went the next day and paid the $20.

X Q. 5. Can you state how long it was before you paid the balance?

A. It was within 30 days; I can't state the date.

X Q. 6. In answer to redirect question 56 you state you think these repairs were made in 1866. By examining your bill do you find that you were mistaken about two years?

3105 A. I think there was a mistake of about two years.

X Q. 7. On your redirect examination yesterday you stated that repairs were made to the mill or race, from which race you obtained water for your engine. Is it not true, Mr. Adams, that during the time you were engaged in the Buxton shop, on Main St., that there were more or less repairs made to the mill or race each year, or nearly every year, so that the water was shut out of the race for some few days; is that true?

A. I think it is not.

X Q. 8. Did you not state yesterday that they were repairing the race every little while for some years—for a number of years—while you were there on Main street?

A. I did.

X Q. 9. Wasn't the water taken out of the race in 1860 for some considerable time? Please answer directly.

A. It was not all taken out.

X Q. 10. Will you swear positively that the water wasn't all taken out of the race in 1860 for some little time? Please answer yes or no.

A. I won't swear positive in regard to that.

X Q. 11. Will you swear positively that the water was not taken out of the race for some repairs during the year 1861, and that the water was not out of the race for some few days? Please answer directly.

A. I think there was some water in the race; I won't swear positive.

X Q. 12. Is not it true that during each year or nearly every year of the time you were on Main street, in Buxtons' shop, that
3106 the water was shut out of the race for the purpose of cleaning it out—the wash and sediment?

A. I don't know of only one year that it was taken out for that purpose.

X Q. 13. Then do you mean to be understood that the water was in the race all the time during the years you were running the engine on Main street, except when the water was so shut off from the race for the purpose of making repairs on it, the bulk-head, or the mill?

A. I was not every day there, but what I know about it that is a fact; sometimes I would be gone a week.

X Q. 14. When did you first see Complainants' Exhibit No. 1, Warsaw, N. Y., in reference to this examination?

A. I don't know. When you were asking me about the engine I went home, looked it up, cut out a picture of the engine in the corner of the bill. I thought I could explain by the picture. My impression is it was week before last, on Thursday.

X Q. 15. Did you then examine the bill?

A. I did not.

X Q. 16. When did you first examine the bill since this trial?

A. Last night.

X Q. 17. In answer to recross-question 14 you stated that you saw the bill in reference to this case when we were questioning you in regard to the engine, and you say you think that was a week ago last Thursday. Now, wasn't it just about a month ago that you were so examined in regard to the engine, and if you saw the bill at that time, as you say you did, ain't you mistaken about two weeks, and is not your memory very defective in that particular? Please answer directly.

A. I have seen the bill a great many times.

X Q. 18. Question repeated.

A. I can't answer such a question.

3107 X Q. 19. Wasn't you examined just about a month ago in regard to this engine?

A. I don't know; I don't know that it was a month ago; I can't tell the date; I am so confused and so unwell; it was when you were here.

X Q. 20. You have mentioned several times during your examination that you "are so confused." Please state what confuses you.

A. My head is very much out of —; I am so dizzy that I can hardly see at times; have been several months; I am generally debilitated; my water-works trouble me; am generally out of kilter.

X Q. 21. When you say you are confused you apply that to the answers you have given to some of the questions, do you not?

A. I do to some.

X Q. 22. Give me the date, as near as you can, when you were first examined as a witness in this case.

A. I can't give it; I dare not tell what time it was; my mind is so now I can't think of nothing.

X Q. 23. In answer to cross-question 301, in testifying in regard to this Buxton driven well, you said "I will say for your accommodation that I did not see the hole, for the pipe was in it." Please answer directly whether that answer is true.

A. I don't know why it ain't.

X Q. 24. Was the pipe in the hole when you first saw it?

X Q. 25. You say that you did not see the hole; then you don't know how it was made, do you, of your knowledge?

A. I saw them punch with an iron bar; I didn't go near.

X Q. 26. Question repeated; an answer required—yes or no?

A. All I can say, I see them at work at it; I don't
3108 want to answer it yes or no; it seems like a combination.

X Q. 27. Question repeated. The witness is requested to answer directly.

A. I didn't make the hole, and I should answer that I didn't.

X Q. 28. On your cross-examination, in answer to question 18, which question is as follows: "How much money did you pay to Mr. Colligan altogether when you went after the engine?" you stated, "$500; I don't know whether we had a draft or not." In answer to the next question, which is as follows: "Did you pay him the full amount, either by cash, draft, or otherwise, at the time you went after the engine?" you answered, "With the exception that Mr. Painter made on the note; I don't know how much that was." Are those answers correct?

A. As far as I am concerned, they are.

X Q. 29. What do you mean by stating "as far as I am concerned?"

A. I mean that the engine was paid for, as far as I am concerned.

X Q. 30. In answer to redirect question No. 4 you state that you don't know whether it was all paid at one time or not. In answer to cross-questions 18 and 19, above referred to, you unqualifiedly state that it was. Which answers are true?

A. I should consider, as far as I am concerned, they are both true.

X Q. 31. Did you pay the whole ($500) for the purchase of that engine at one time?

A. Fargo and I paid, with the exception of that Painter
3109 note, and I considered that paid.

X Q. 32. Did you and Fargo pay that in cash or draft and the Painter note at that one time?

A. I do not know.

X Q. 33. Haven't you testified unqualifiedly, in answer to cross-question 19, that you did?

A. I have said, so far as I am concerned, it was, and I say so yet; whether it was paid in cash, notes, or drafts I could — tell.

An adjournment was here taken until 2 o'clock p. m.

At 2 o'clock p. m. parties met pursuant to adjournment.

X Q. 34. You say the pipe was brought into your shop for you to drill the holes and put the plug in; was that the first time you now remember of having seen that pipe?

A. That was the first time.

X Q. 35. Who brought the pipe in and so directed you as to the work?

A. I don't know who brought it in.

X Q. 36. Had you been informed by any one, prior to the time the pipe was so brought into your shop, that you were wanted to drill certain gas pipes or put a plug in one?

A. I don't know that I was until it was brought in.

X Q. 37. Then is it not true that the first intimation that you had about drilling the pipe or putting the plug in the end and what it was to be used for was when the pipe was so brought in to your shop?

A. Probably it was; that is my recollection, but I can't tell.

X Q. 38. Please state what was said to you and all that was said when the pipe was so brought in.

3110 A. I can't tell all that was said to me. I was told by Mr.
Buxton to turn a plug out of hard hickory with a shoulder to it to run up into the pipe about 3 inches, I should think. He marked what he wanted out on a paper, and run off to a point. I don't remember of anything more was said.

X Q. 39. The notary is requested to read the answer last given to the witness, and he is asked, the witness, if that is all that he remembers that Mr. Buxton told or stated to him at that time.

A. That is all I recollect.

X Q. 40. Then you did not know at that time—that is, when you were drilling the pipe—what use it was to be put to, did you?

A. I might and might not; could not say.

X Q. 41. Have you a distinct recollection now of the use that this pipe was to be made of when you were drilling? Please answer directly yes or no.

A. I have a distinct recollection about it.

X Q. 42. When did you first hear that Mr. Buxton contemplated making the well that you say *that* was put down in 1858?

A. I don't know.

X Q. 43. Was it not at the time or after the pipe was so brought to you to drill?

A. It might have been at that time; I can't say; that is the first that I recollect anything about it.

X Q. 44. Do you remember anything that you stated to Mr. Buxton at the time he requested you to fit the plug in the pipe?

A. I don't know that I stated anything to him.

3111 X Q. 45. Is it your best recollection that you did not state anything to him?

A. It is.

X Q. 46. The dates you gave of the burning of Gates, Breck & Herd's shops you took directly from the history of Warsaw, did you not?

A. I did.

X Q. 47. Did you ever see the bar before or after you saw it standing against the shop, or when you saw the well made on Buxtons' premises, as you have testified to?

A. I don't know that I ever did.

X Q. 48. Please state about the month that you put in the engine on Buxtons' premises.

A. I think it was the month of May; might have been April.

X Q. 49. Give the date, the month as near as you can, that the driven well was put down.

A. It was within the month- of July, August, or September; one of those three months.

X Q. 50. Hav'n't you, since the examination in this cross-examination, at Warsaw, been to Mr Sprague, the person spoken of in your examination, and talked with him in regard to the date or dates you have since testified to?

A. I have talked with him about the date of the time I did the work for him.

X Q. 51. When did you first go and talk with him about it?

A. I don't know.

3112 X Q. 52. Hav'n't you been to his mill since the examination commenced here and talked with him about the date certain repairs were done on that mill some twenty years ago?

A. I have talked with him there at the mill; I presume so.

X Q. 53. Did not Mr. Sprague tell you that you repaired that wheel in 1860?

A. I don't know whether he did or did not.

X Q. 54. Will you swear that he did not?

A. I don't know that Mr. Sprague told me any such thing.

X Q. 55. Will you swear positively that Mr. Sprague has not told you within a month past that it was in 1860 that you did work for him for the water-wheel?

A. He did; has talked with me and told me that.

X Q. 56. And didn't he also tell you the date that he purchased the mill?

A. I don't know.

X Q. 57. Will you swear that he didn't?

A. I can't swear whether he did or did not.

X Q. 58. Didn't he also tell you that the bulk-head testified to by you was put in by Mr. Ferris in 1858?

A. He might and he might not; I couldn't say.

X Q. 59. Why is it, Mr. Adams, that you have been talking with Mr. Sprague in regard to those dates or any of them?

A. Mr. Sprague first spoke to me about the driven well; said he knew that there was one in at Buxtons when he got that
3113 work done or when I did it for him; he called my attention
to it—Mr. Sprague did—before I knew that he knew anything about it.

X Q. 60. Hav'n't you testified to the dates that Mr. Sprague gave you when you did the work for the wheel exactly the same as he told you?

A. I presume I have.

X Q. 61. In answer to redirect question 21 you say you knew of another pipe being drilled after you drilled the one for Buxton in 1858. Who drilled that other pipe?

A. I can't tell.

X Q. 62. Did you have any particular pipe in view when you answered that question?

A. I had not.

X Q. 63. You say you don't know who drilled it. Do you know of any one else drilling pipes for that purpose beside yourself?

A. There were others helped about drilling it; it always took two—one to hold it up and the other to do the drilling.

X Q. 64. Who assisted you or held up the pipe that you drilled in 1858?

A. It was one of the helpers from the blacksmith shop; can't tell which one.

X Q. 65. About how many pipes have you ever drilled to be used in these wells?

A. I can't tell the number; might have been a dozen; might have been two dozen.

X Q. 66. For whom did you drill a pipe first after the one you drilled in 1858, as you say? Please state the first one that you now recollect of drilling for.

3114 A. It was a stranger to me. There were two of them
along—strangers to me, both of them. I don't know where they lived.

X Q. 67. Describe the men.

A. I can't do it. I don't remember of drilling but one for them; they undertook to put in a well for Dibble, but couldn't get water.

X Q. 68. Were they the men that came here and put down a driven well on the corner by this hotel or near a livery barn just north of here, if you know?

A. I do not know.

X Q. 69. Name some other parties that you drilled pipe for after that?

A. Did a little for John West; I can't tell anybody else.

X Q. 70. Do you remember the fact that a driven well was put down by strangers on the corner of Main and Genessee —, in this village?

A. I don't.

X Q. 71. Didn't you just state to me, Mr. Adams, that you knew the fact that a driven well was put down on the corner of Main and Genessee streets by a stranger, or that in substance?

A. I said they were put down somewhere along here while they were building these brick blocks.

X Q. 72. How long after the making of the Buxton well, testified to, was it before West attempted to make a well for you spoken of?

A. I can't tell; must have been 12 or 14 years afterwards.
3115 It was after I moved into that shop—a shop I had built for myself right west of the Baptists' shed; it stands there now.

X Q. 73. Give me the date that West attempted to make a well for you.

A. I can't do it.

X Q. 74. Can you tell me within two years of the time?

A. I can't, only by going and looking at my books; I have never thought of it. It was some time after 1870; somewhere about that time.

X Q. 75. How long was it before you first drilled pipe for West from the time you drilled the first pipe testified to?

A. I do not know; I can't tell anything about it; it might have been 5, 6, or 8 years.

X Q. 76. And it might have been less than five years, might it not?

A. I can't tell how long it was.

X Q. 77. Don't you know that there was an association formed in this village about a year ago for the purpose of raising money to defend action brought under this driven-well patent?

A. Only from hearsay.

3116 R. X Q. 78. Wasn't the subject of this Buxton well talked about considerable at that time and with you?

A. Different ones talked with me about it along about that time; I can't tell who they are; I don't exactly know when.

R. X 79. What time of the year was the bulk-head put in that you referred to?

A. It was along in the summer or fall; I can't tell exactly when.

R. X. Q. 80. Hasn't there been considerable feeling here in this place against this patent and the right of the owners to collect royalty on it?

3117 A. I think there has been with those interested.

R. X Q. 81. In answer to redirect question 71 you state that you examined or was present when Timothy H. Buxton examined his books to find the date; that there was some question about the date of his paying money to Colligan. Now, didn't you, in answer to cross-question 324, give as such reason for examining the books to get the date of getting that engine, the first engine?

A. I don't know.

Recross-examination here closed.

Redirect cross-questions:

2nd R. D. 1. In cross-question 12 you were asked, Isn't it true that during each year or nearly *each* every year of the time you were on Main St., in Buxtons' shop, that the water was shut out of the the race for the purpose of cleaning it out, the wash & sediment. To which you answered, "I don't know of only one year that it was taken out for that purpose." Now, can you tell what year that was?

A. I can't tell what year that it was.

2nd R. D. 2. Give us your best recollection as to the year.

A. I think it was within the past six years.

3118 2nd R. D. 3. In your answer to cross-question 20 you spoke about being dizzy at times and out of health; now, does this dizziness which affects your head and your ill health affect your recollection of events happening 12, 15, or 20 years ago?

A. It only affects me while it is on me.

2nd R. D. 4. How does it affect you at such times?

A. It prostrates me so that I almost die off. I don't know of any other explanation I can give to it.

2nd R. D. 5. Is your memory at all injured by it?

A. I think not.

2nd R. D. 6. Have you consulted physicians in regard to your condition?

A. Yes; they have told me that something about my heart was the trouble and that my kidneys were affected; that I was liable to drop away at any time; they said water gathered around my heart. These troubles have been coming on me for perhaps two years.

2nd R. D. 7. In answer to cross-question 29 you say, I mean that the engine was paid for, so far as I was concerned. What do you mean by saying it was paid for, so far as I am concerned? Explain what you mean.

A. I mean that I was holding notes and it was paid for, as far as I was concerned.

2nd R. D. 8. What were the notes to which you referred?

A. I held notes against C. & T. Buxton.

3119 2nd R. D. 9. Were any of these notes used in paying for this engine in any way?

A. I think they were.

2 R. D. 10. How?

A. I can't tell how.

2 R. D. 11. When you were turning this plug or drilling the holes in the pipe did you hear any remarks made by any persons about the pipe or anything connected with it or about the use of it?

A. I don't know.

2 R. D. 12. Did you hear anything said on that occasion about the well by any around there, in the shop or out-doors?

A. I heard them talk and laugh about it. I can't tell much about it.

2 R. D. 13. Can you tell anything that you heard said there?

A. The remark was made by some one, I can't tell who, that they did not believe they could get water in that way. I can't remember what was said. I think this was said out-doors.

2 R. D. 14. Can you tell anything about when these mills burnt by anything aside from anything you got from the history of Warsaw?

A. Only *be* from hearsay and from references on my books as to what work I did.

2 R. D. 15. Question repeated.

3120 A. Yes.

—R. D. Q. 16. In cross-question 50 you were asked if you had been to see Mr. Sprague in regard to the date or dates you have since testified to; now, tell us about your going to Mr. Sprague, if you did, or his coming to you, if he did.

A. I think he first spoke to me about the driven well at the time they were agitating of it, as he had one or two; he said he knew that Buxton had one at the time he was a-getting that work done for his wheel.

2 R. D. 17. Did you go to him to get any dates from him?

A. I don't think I did.

2 R. D. 18. Did you know or have the means of knowing when you did the work for him which you have mentioned?

A. I did.

2 R. D. 19. Have you any book account of it?

A. I have; the account was made when the work was done.

An adjournment was here taken until Feb'y 27, at 9 o'clock a. m.

Feb'ry 27th—Parties met pursuant to adjournment.

2 R. D. 20. Mr. Adams, you were asked on your cross-examination yesterday if Mr. Sprague did not tell you that the bulk-head was put in in 1858; do you know independently of anything Sprague told you or that you learned from him when *when* the bulk-head was put in?

A. Yes.

2 R. D. 21. Was John Sprague interested in this bulk-head you mentioned yesterday?

3121 A. He was not, to my knowledge.

2 R. D. 22. You were asked in your cross-examination yesterday if you had not testified to the dates that Mr. Sprague gave you when you did the work for the wheel exactly as he told you. Now, did you know the dates when you did the work for this wheel independent of anything he told you?

Question withdrawn, having been previously asked and answered.

2 R. D. 23. Produce the entry of the work done for the wheel for Sprague and allow the notary to copy it.

Book produce- and entry as follows:

Second redirect examination of this witness here closed.

* * * * * * *

Second recross-examination:

2 R. X 1. The bill of which Complainants' Exhibit No. 1, Warsaw, N. Y., is a copy shown witness. Mr. Adams, I notice on the back of this original bill the following: "1880, driven well, Colligan." In whose handwriting could you say that was?

A. I think it is T. H. Buxton's; that is my opinion.

3122 2 R. X 2. Has this bill been in Mr. Buxton's possession recently?

A. It has.

2nd R. X 3. Did you take it to him at his residence?

A. I did.

2nd R. X 4. When first?

A. I can't tell what date; might have been a week ago and might have been a little more.

2nd R. X 5. Did you and Buxton then examine this bill?

A. We did.

3123 2nd Re-X Q. 6. And talk about it at that time?

A. I think we did.

Q. 7. Was that since you was examined before and before the last examination?

A. It was.

Q. 8. Did Mr. Buxton read the bill?

A. I don't know how much of it; he looked at it; he didn't read it out loud.

Q. 9. How came you to take the bill to Mr. Buxton?

A. I think he asked me for it.

Q. 10. Didn't you, after you found this bill, either take the same to Mr. Buxton and show it to him or go and tell him what you had found before he said a word in regard to this bill?

A. I don't know.

Q. 11. Do you swear positively that you don't know how that was?

A. I can't tell how it was.

Q. 12. Haven't you any recollection how it was, the slightest?

A. I have no recollection how it began.

Q. 13. Did you leave this bill with Mr. Buxton?

Q. 14. For how long a time?

A. Might have been a week; might have been two weeks; I can't tell; somewhere about there.

Q. 15. Haven't you been to Mr. T. H. Buxton's house 12 or 14 times since you were examined as a witness here in this case in February?

A. I presume I have.

Q. 16. And haven't you on nearly every one of those occa-
3124 sions conversed with him on the subject of this driven well?

A. I think I have.

Q. 17. And haven't you examined books and papers with Mr. Buxton several times in regard to this driven well—I mean in reference to finding dates of certain facts—for the purpose of enabling you to fix certain dates that you have given in your testimony?

A. I don't know that I have examined books more than two or three times with him; the object was to find out about the money.

Q. 18. Will you swear that you haven't examined — more than two or three times?

A. I won't swear positive about it.

Q. 19. At whose request did you so examine Buxton's books?

A. I don't know; I don't know that it was at any one's request, but I won't swear positively anything about it.

Q. 20. In answer to question 17 you say you examined these books to find out about the monies. What money?

A. Money that was paid for that engine that was bought in 1858.

Q. 21. And that would enable you to fix the date that the engine was purchased, wouldn't it?

A. I think not.

3125 Q. 22. Do you swear that that wouldn't enable you to fix
the date—about the time the engine was bought?

A. I say it did not.

Q. 23. How did Mr. Buxton know that you had this bill, Complainants' Exhibit No. 1, Warsaw, N. Y.?

A. He might have seen it when I got it and I might have told him; I can't tell.

Q. 24. In answer to question 17 above you say that you examined the books; the object was to find out about the money; was that your only object?

A. I think it was.

Q. 25. Then you didn't examine your books to enable you to find out the date of the purchase of the engine, which you testify was in 1858?

A. That wasn't my object and never had been my object when I examined his books.

Q. 26. Haven't you asked Mr. Buxton the date that you purchased that engine and examined his books for that object?

A. I don't know that I have.

3126 Q. 27. In answer to cross-question 324 you were asked if
you had examined with Timothy H. Buxton or been present when he examined his account books kept years ago in relation to this well. Your answer was, I have been there and asked him some questions in regard to the dates of getting that engine—the first engine. Will you please explain that answer, if it is true, with the answers to questions 24, 25, and 26 last above?

A. My only object was to find out the dates of the monies.

Q. 28. Why did you find out the dates of that money, as you state in answer to the last question?

A. I didn't recollect when I got certain moneys; I held notes against him—I mean the moneys in paying for the engine.

Q. 29. What has the date that you got the moneys to pay for that engine to do with this case that you have been to so much trouble in finding it out?

A. I don't know; only to satisfy myself.

3127–3129 Q. 30. Then do you mean to be understood that these dates have nothing to do with this case? Answer yes or no.

A. I don't know.

Q. 31. What did this bill of Colligan's of Dec. 17, 1864, have to do with the driven-well matter in question?

A. I don't know as it had anything to do with it.

Q. 32. Why, then, did you and Mr. Buxton have a consultation over this bill in connection with these driven-well matters?

A. It was called out on the former trial; something in regard to the expenses—the former examination in February.

Q. 33. Now, Mr. Adams, have you any entry on your books, any notes, bill, or memorandum of any kind or nature whatsoever, that fixes the date when this driven well was made?

A. I have not.

Q. 34. Have you any, and, if so, what, entry, memorandum, bill, or document of any kind whatsoever that enables you to fix the date when that well was made.

3130 & 3131 A. I don't know.

Q 35. Have you, to your knowledge, had any such writing or writings as in the last question within a year past?

A. I don't know that I have.

Q. 36. Is the endorsement upon the Colligan bill of repairs of December 16th, 1864, in the words and figures following—1880; driven well; Colligan bill for repairs on engine to H. E. Adams—all in one handwriting; and, if so, whose?

A. It is, in my opinion, in Mr. Buxton's handwriting.

Second recross-examination here closed.

3rd Re-D.:

Q. 1. When did you first see that endorsement on the back of this Colligan bill?

A. I think it was yesterday.

Q. 2. Who first called your attention to it?

A. Mr. Hurlbut here.

The testimony of this witness was here concluded.

(Signed) HIRAM E. ADAMS.

Sworn and subscribed before me—

(Signed) E. M. BARTLETT,
Notary Public.

3132 Then the said Chancy C. Buxton, being duly sworn, testified as follows:

3133 Q. 1. State your name, age, and place of residence.

A. My name is Chancy C. Buxton; I am 66 years of age, and residence, Warsaw, Wyoming Co., N. Y.

Q. 2. How long have you been a resident of Warsaw?

A. I should say fifty years.

Q. 3. What has been your business in Warsaw?

A. Wagon & carriage business.

Q. 4. Have you been in any other business?

A. Yes, sir.

Q. 5. What?

A. Hardware and drug business.

Q. 6. How many years were you in the carriage and wagon business?

A. Some thirty years.

Q. 7. When did you first go into the hardware business and how long did you continue in it?

A. I can't tell exactly without looking at some dates.

Q. 8. Have you any dates with you that will enable you to fix the date of your going into the hardware business?

A. No; I don't think I have.

Q. 9. Who was associated with you in the hardware business?

A. Noble Morris, O. L. Buxton, & T. H. Buxton.

Q. 10. When did you first go into the carriage and wagon business?

A. In 1836.

3134 Q. 11. Who was then associated with you?

A. T. H. Buxton.

Q. 12. Where was your place of business when you first commenced?

A. On Water St., in this village; the shop stood right north of the Seth M. Gates place; we had a blacksmith shop and wood shop.

Q. 13. How long did you continue in business on Water St.?

A. Some 8 or 9 years, I think.

Q. 14. Did you then change the location of your shops; and, if so, to what place?

A. We did; we moved on Main St., to the present location of the shops.

Q. 15. How long did you carry on business in that location?

A. Until the fall of 1866.

Q. 16. Did you then retire from the firm?

A. Yes, sir.

Q. 17. Who succeeded you, if any one?

A. Charles Williams, Feries Norton, and my brother, T. H. Buxton; I sold out my interest to Williams & Norton.

Q. 18. How long was your brother, T. H. Buxton, associated with you in the carriage & wagon business?

A. About thirty years; from the time we commenced on Water St. until I retired.

Q. 19. What do you mean by the wagon & carriage business—were you selling, manufacturing, or both?

3135 A. I mean by wagon & carriage business that we were manufacturing lumber wagons and light-work buggies, & two-horse carriages.

Q. 20. How many shops did you occupy on Main St.?

A. We occupied a wood shop, a store, iron and a blacksmith shop.

Q. 21. Did you conduct any other business in your shops on Main St. besides wagon and carriage business?

A. We did; for a year or so we done custom blacksmithing and horseshoeing.

Q. 22. Did you ever know Nelson W. Green?

A. I have seen him.

Q. 23. Where?

A. Warsaw.

Q. 24. When, as near as you can recollect?

A. I think I have seen him here at different times; I don't think I can fix any particular time; I think he was here in 1858, but I am not positive.

Q. 25. With whom and where did he stop when he was here?

A. I think he stopped with Mrs. Windsor.

Q. 26. Did Mrs. Windsor live in this village; and, if so, on what street?

A. ——.

Q. 27. Where did Mrs. Windsor live?

A. I think she lived on Buffalo St., right there by the race.

3136 Q. 28. How were the premises she occupied on Buffalo St. situated relative to your shops?

A. They were north of the shop and a little west.

Q. 29. How near were they to the lot, real estate, on which your shops were situated?

A. There was a strip maybe a hundred and fifty feet wide. I should think it was that—it is guess-work—between her lot and the alley that run into our shop.

Q. 30. How near was the north boundary of the premises occupied by your shops to the south boundary of the premises occupied by Mrs. Windsor?

A. I should judge about a hundred feet.

Q. 31. What was the situation of Mrs. Windsor's premises on Buffalo St. relative to that where T. H. Buxton resided in 1858?

A. Right across the street, almost opposite—not quite; she was a little further west on the street.

Q. 32. What part of the business did you attend to in your carriage & wagon business?

A. I had a bench in the shop that I worked — sometimes myself; I see to working the hands; I see to furnishing the lumber and cutting of it up, and the like of that.

A recess here taken until 1 o'clock p. m.

1 o'clock p. m.—Parties met.

Q. 33. What machinery had you in your shops on Main St.?

3137 A. We had an engine, turning-lathe, an upright saw, a circle saw, a turning machine, planer, rotary planer; I think that is all.

Q. 34. Who had the management of the turning-lathe?

A. H. E. Adams.

Q. 35. By what power was this machinery operated?

A. Steam power.

Q. 36. From what sources was water supplied for the engine?

A. We took the water from the race as a general thing.

Q. 37. Did this race run through your premises; and, if so, how close to your shop?

A. It run right under the shop where the machinery was.

Q. 38. Were there any other sources from which you obtained water for your shops?

A. There was.

Q. 39. What other sources?

A. There was a well back side of the blacksmith shop from which we got water for our engine sometimes.

Q. 40. What kind of a well was that?

3138 A. That was a drive well; pipe put down; what we call a drove well.

Q. 41. Was there any other well?

A. I think there was a well, but it was dry, I think; there was another well on the lot, but I think it was dry at that time.

Q. 42. Dry at what time?

A. The summer of 1858.

Q. 43. You may describe this well that you have characterized as a drove well.

A. It was a pipe well; an iron pipe drove down and a pump attached to it.

Q. 44. How near to the blacksmith shop was this drive well?

A. Oh, I should say 4 or 5 feet probably.

Q. 45. Do you know who put down this drive well?

A. I do not.

Q. 46. When did you first observe it?

A. In the summer of 1858, sometime.

Q. 47. How long was it used for obtaining water?

3139 A. I can't tell exactly how long the well was used; it was used that season for supplying the engine while the water was out of the race.

Q. 48. What season?

A. 1858; the summer of '58.

3140 Q. 49. Give us your best recollection as to how long the drive well was used.

A. Now I can't tell; there is something that I would explain; it was used until the shop was enlarged and built over this well; after the shop was built over it it wasn't used at all, I suppose.

Q. 50. Did you procure water from this well?

A. Yes, sir.

Q. 51. How frequently and for what purposes did you procure water from this well?

A. Water was used from that well to drink for both shops, and was used for the engine; there was some of the time that water was carried *from* the engine, probably *forever*; now, for instance, here they were filling up the engine and a man would be carrying water from this well for perhaps half or three-quarters of an hour.

Q. 52. How frequently have you personally obtained water from this well?

A. I couldn't tell how often.

Q. 53. In what year was this extension made to your blacksmith shop?

A. I can't tell you; I can't tell what time that was built on.

3141 Q. 54. How was the water obtained from this drive well?

A. By means of a pump.

Q. 55. In answer to question 47 you say, "It was used that season for supplying the engine while the water was out of the race," and in answer to question 49, which was, "What season?" you answered, "1858, the summer of 1858." Now, if you know, state why the race was dry in that season.

A. They were doing some repairs on the race; my best impression — that they were putting in a waste gate *that* and cleaning out the race.

Q. 56. What was done with this drive well when this extension was made to your blacksmith shop?

A. I think it was taken up.

Q. 57. Afterwards and about the time this was taken up was another well put down similar to it?

3142 A. Yes, sir.

Q. 58. Where?

A. Put down inside of the shop.

Q. 59. Is that well still there?

A. I think it is.

Q. 60. You say that Mr. Adams run the turning-lathe; was there a time when any one assisted him—was in company with him?

A. Yes, sir; there was.

Q. 60½. Who was in company with him?

A. Silus Fargo.

Q. 61. In what year or years were they in company?

A. They were in company in 1858.

Q. 62. When was this driven well you have spoken of put down, relative to the time Adams & Fargo were in company?

A. It was put down that summer, the summer of 1858, the time they were in company.

3143 Q. 63. Were there any other manufacturing shops near your shops on Main St.?

A. There wasn't any.

Q. 64. Were there any mills or establishments near yours? I don't mean on Main St., but anywhere in the near vicinity of your shops?

A. There was.

Q. 65. What were they?

A. Planing-mill.

Q. 66. When was it erected, as near as you can recollect?

A. 1853, I think.

Q. 67. By whom was it erected and operated?

A. It was built by the old gentleman Herd & Son; that is my best recollection; I think his name is C. P. Herd. I want——

Q. 68. Did any one succeed them in the business—another firm—or were there any additions made to the firm subsequently?

3144 A. I think after that Seth M. Gates & A. Y. Breck were added to the firm.

Q. 69. And what was the firm name of such association?

A. I think the firm went Gates, Breck & Herd.

Q. 70. What became of their shop?

A. Burnt up.

Q. 71. In what year?

A. 1859.

Q. 72. Were any efforts made to extinguish the fire; and, if so, what?

A. There was water got from any part that they could get it to put out the fire.

Q. 73. Mention the places you recollect of their getting water to attempt extinguish the fire.

A. They got water from the creek; they got water from this well back of the shop; they got water from the race under the shop.

Q. 74. What well back of the shop?

A. The drive well.

Q. 75. Describe that well as it appeared above the ground, the pump upon it, and the nature or character of the soil in which it was.

A. The well above the ground was a pipe; I can't tell the size of
the pipe; I should judge an inch and a quarter, somewhere along
there, would be my best recollection; the pump attached to the
pump in a way to draw the water—well, I can't; I think the pump
was screwed onto the pipe, but I can't tell exactly; it was
fastened in some way to answer the purpose; that is all about
3145 the pump that I know of; the soil, I should say, is what I
should call a gravelly loam, sand and gravel, more gravel
than loam.

Q. 76. Describe the pump on this well.

3146 & 3147 Q. I can't describe that pump. I can tell what I think about what's my best recollection, if that is what you want. It was a round, spout pump, with a—well, with a crooked spout with a knob on top, a place to hold a pail; I suppose that is what it is calculated for.

The direct examination of this witness was here concluded, and an adjournment taken to March 30th, 1880, 9 o'clock a. m.

March 30th.—Parties met pursuant to adjournment.

The witness here stated that he desires to make a correction of his yesterday's testimoay as to the time of the erection of the first Herd mill.

3148 On his cross-examin*ed* by Mr. HURLBUT, of counsel for complainants, the witness testified:

X Q. 1. What is your business now, Mr. Buxton?

A. My present business is to work in car shop at Buffalo.

X Q. 2. In what capacity?

A. Working on passenger coaches; repairing a part of the time, a part of the time on baggage car, wood-working.

X Q. 3. Have you an interest in the business, or are you employed by the day or month?

A. I am employed by the day.

X Q. 4. How long have you been so at work at Buffalo?

A. Eleven days and a half.

X Q. 5. What was your employment just before that?

A. The last work that I done before that was wagon work; hadn't done anything for 8 weeks.

X Q. 6. Where were you engaged in wagon work as stated in your last answer?

A. Last summer I worked for Richards & Welch a part of the summer; the forepart of winter I worked a short time, can't tell exactly how long, for Crawford, Samuel Crawford, a short time, probably a month or six weeks; after that I worked for a man by the name of Mills a couple weeks. I think that was the last work I done in the wagon business.

X Q. 7. Tell me the date you finished working for Mills, and where you so worked for him.

3149 A. I can't tell you exactly without referring to my book; I think I worked for him two weeks or about two weeks in the month of January; I worked for him—well, the shop is right back of our old shops on Main St., Warsaw.

X Q. 8. Who did you work for next before working for Mills?

A. I worked for Samuel Cranford.

X Q. 9. Did you go from Cranford's directly to Mills' or was there some time intervening that you did not work?

A. I think I went directly from Cranford to Mills; there might have been a day or two between; I worked for Cranford in this village.

X Q. 10. You say that you probably worked for Cranford a month or six weeks at that time and that you worked for Richards and Welch before that. Was there any time intervening from the time of your le*ft* Richards and Welch until you went to Cranford's to work?

A. Well, I think there was a time—quite a time; I can't tell exactly, without referring to my books, how long.

X Q. 11. Give us your best idea of the time.

A. Probably a couple of months; might have been that, might have been longer.

X Q. 12. How long were you employed at Richards & Welch at that time?

A. I can't tell that without looking at my book; not exactly.

3150 X Q. 13. Give me your best idea as to the time.

A. Well, three or four months or between three & four months.

X Q. 14. Where were you employed just before that?

A. I had a shop or a room of my own or that I rented or occupied—I did not pay no rent for it, neither—where I done repairing and built some new work for myself on my own hook.

X Q. 15. How long were you unemployed prior to going to Richards & Welch, if any?

A. I worked about 3 weeks, I should judge, for Joseph Brown, culling spokes; I was not any unemployed; I went right from Joseph Brown—from culling the spokes—to work for Richards & Welch.

X Q. 17. Did you go directly from the wagon business that you were engaged in for yourself, as you testified to, to Brown's?

A. I think I did.

X Q. 18. Can you swear positively?

A. No, sir.

X Q. 19. Where were you engaged in repairing and making wagons for yourself, as testified to last above in X question 14?

A. to Q. 19. In this village, right back of our old room in the wood blacksmith shop, in the north end.

X Q. 20. How long were you so engaged in repairing or making wagons for yourself?

A. O, it might have been a year or a year and a half that I worked there; not steady.

X Q. 21. What did you do next before that?

3151 A. I think before that I done some work for my brother. I can't tell how much nor when exactly; I worked for him whenever he had work to do of that kind.

X Q. 22. Were you unemployed, and, if so, how long from the time that you ceased working for your brother, as in the last answer stated, until you went to making or repairing wagons for yourself?

A. I had this place to work in and when he had any work to do I did it; when he hadn't any work and I had any job on hand myself I done it.

X Q. 23. I understood you as testifying that you were engaged for a year and a half in manufacturing or repairing wagons for yourself; before that you worked for your brother when he had work to do. In my last question I asked you to give me the time that intervened, if any, from the date that you ceased working for your brother until you commenced working for yourself, as testified to. Now, please answer my questions—that question.

A. Now, in the time I spoke of in working for myself I done work for him just as I done it for anybody else; he generally furnished his own material and paid me so much for my labor.

X Q. 24. Question repeated.

A. I can't tell you what time there was between that.

X Q. 25. Tell me as near as you can.

3152 A. Why, now, to get that in any kind of shape so that I can tell you, after I went out of the drug trade, that was the last business, I worked for him, and I worked for myself whenever I had any business or he had any business; I can't give the time.

X Q. 26. Mr. Buxton, will you please refrain from lugging in extraneous matter and making irrelevant and irresponsive answers. and confine yourself strictly to the questions. Question repeated. Tell me the time as near as you can.

A. I can't answer that question; I don't know.

X Q. 27. Have you any idea in regard to such time?

A. I don't know that I have.

X Q. 28. How many years ago was it that you commenced business for yourself, as testified to above?

A. I have given you as good a statement on that as I can; after I went out of the drug trade I worked for my brother or myself whenever he had any work for me to do or I had any work myself along at times; it is impossible for me to fix any dates to these times.

X Q. 29. Haven't you already testified that just prior to working for Richards and Welch that you had a shop where you did repairing and built some wagons for yourself, and that you were so engaged for yourself a year or a year and a half, and that before "I done some work for my brother; I can't tell how much or when exactly?"

A. I testified to that or something the nature of that.

3153 X Q. 30. Question 28 repeated, and the witness is requested to answer the question stripped of irrelevant matter.

A. O, it may be some two or three years ago; it may be three.

X Q. 31. Now, you have stated that you were employed by your brother before that. What length of time intervened, if any, from the time you were so employed by your brother until the time you commenced business for yourself, as testified to in your last answer? Please answer the question without extraneous matter.

A. I can't answer that without an explanation.

X Q. 32. Do you refuse to answer that question?

A. I don't refuse to answer any question that I can answer.

X Q. 33. Was there any time intervening between the time that you commenced business for yourself and the time that you were employed by your brother? Please answer directly.

A. I presume there was.

X Q. 34. Give me your best idea of that time.

A. I can't give that time. Now, for instance, to-day he had a piece of work to do. I done it. The time between these jobs of work I can't tell. I can't tell the time. There might have been a day and there might have been a week.

X Q. 35. How many hands did you employ during that year and a half you were engaged in business for yourself, as testified to?

A. I didn't employ any help.

3154 X Q. 36. During how many years were you employed by your brother prior to your going into the wagon business by yourself, as testified to in your last answer?

A. I think I worked for my brother at different times some 4 or 5 years before I went into this shop where I worked. I should say 4 years; not worked all the time; worked occasionally. I don't know as I work- half the time; worked any time he had work for me to do.

X Q. 37. Give me your best recollection as to the time you worked for your brother during that 4 or 5 years.

A. I can't answer that question. I haven't no distinct time about it.

X Q. 38. Did you work for any one else during those 4 or 5 years?

A. I don't recollect as I did; still, I might.

X Q. 39. About what year did you cease working for your brother in that capacity?

A. I can't tell you.

X Q. 40. Give me the year, as near as you can.

A. I can't give you the year.

X Q. 41. Give me as near as you can.

A. It might be two years ago; it is all guess-work, because I have worked for him all along ever since I was out of my business, more or less.

X Q. 42. When you say two years ago do you refer to the time you ceased working for Mr. Buxton prior to the time you went into business for yourself, as testified to? Please answer directly.

3155 A. I hadn't ceased working; I worked for him at different times up to within the last year or nearly a year.

X Q. 43. Mr. Buxton, give me the date of your last work for Mr. Timothy H. Buxton, prior to your going into business for yourself?

A. I can't give you that date; I can give you the time or about the last date that I worked for him.

X Q. 44. I have not asked you about the last date that you worked for him; now, please confine yourself to the questions asked and give me the date, as near as you can, called for in cross-question 43.

A. I can't give it to you; I don't know it.

X Q. 45. Can you give me that date within four years?

A. I think I went into business for myself some two or three years ago; that was the time I took this room to work in; there was no cessation of his work.

X Q. 46. Then do you mean to be understood that the last work for your brother, prior to your going into business for yourself, was about two years ago?

A. About that time; about two years ago; might have been a little more. I have no dates—no books to refer to to fix the time exactly.

X Q. 47. What business were you engaged in just prior to your working for your brother, as testified to?

A. I was engaged in the drug business; that was my last business that I had before I worked for him.

3156 X Q. 48. How long was it after you left the drug business before you commenced working for your brother, as testified to?

A. I worked for my brother, I think, within a year after I left the drug business; can't tell exactly.

X Q. 49. What year did you so commence to work for your brother?

A. I think I worked for him in 1872—some in that year; I don't know how much.

X Q. 50. Was any one engaged with you in the drug business; and, if so, who?

A. Frank Lewis.

A recess was here taken until 1 p. m.

At 1 o'clock p. m. parties met as before and the cross-examination of the witness was continued by Mr. HURLBURT:

X Q. 51. What year did you go out of the drug business?

A. 1871.

X Q. 52. Were you successful in that business?

A. No, sir; I don't know as I was.

X Q. 53. How long were you engaged in the drug business with Frank Lewis?

A. About three years and a half, as near as I can get at it.

X Q. 54. Were you engaged in any other business during the time that you were in the drug business?

A. No other business at that time.

3157 X Q. 55. Did you go through bankruptcy shortly after you went out of the drug business?

A. I never went through, for I never got my discharge.

X Q. 56. Did you petition yourself?

A. I did not; it was a creditor.

X Q. 57. What creditor was it?

A. I think it was a man by the name of Millspaugh. He resided here at that time.

X Q. 58. Don't you know his full name?

A. His name is Nathan Millspaugh.

X Q. 59. What were you engaged in just prior to your going into the drug business?

A. I was engaged in building a store.

X Q. 60. You say you haven't got your discharge in bankruptcy. What was in the way of your getting it?

A. It would cost me about $50 or $60 to get it, and I hadn't got the means.

3158 X Q. 61. How much did your liabilities exceed your assets, as shown by the proceedings in bankruptcy?

A. I think my present recollection is from $4,000 to $6,000.

X Q. 62. Did not Nathan Millspaugh make this petition in bankruptcy, with your knowledge of the same, and at your request or with your private understanding?

A. I think I knew of it. I don't think I ever requested him to do it. I understood that he was agoing to do it. He was a creditor to the extent of about *of* $250; don't recollect the exact amount.

X Q. 63. How long were you engaged in building the store testified to?

A. Well, I built the store, I think, about nine months; somewhere from six to nine months.

X Q. 64. On your completion of the store, did you immediately go into the drug business?

A. Yes, sir.

X Q. 65. In what year did you commence building that store?

A. In 1867, I think.

3159 X Q. 66. Did you commence building the store immediately on your going out of the wagon & carriage business with your brother?

A. I think I commenced building the store the spring after that; in the spring of 1867 or the early part of the summer.

X Q. 67. How many years were you continuously engaged in the wagon and carriage business on Main St. with your brother?

A. Somewhere about 20 years, I should judge; I couldn't be positive about that.

X Q. 68. Then you commenced business on Main St. with your brother about the year of 1846 or '7; is that so?

A. Well, I should say somewhere about 1845 or 1846; somewhere about there; that is a thing I can tell exactly by referring to our books; I think I can tell what year we moved there.

X Q. 69. Did your wagon and carriage business prove to be a success in the end?

A. I thought when I sold out I had more than enough to pay my debts.

X Q. 70. Were you engaged in any other business during the time that you were with your brother on Main St, as testified to?

A. No other business that I recollect of.

X Q. 71. When were you in the hardware business?

3160 A. I think I was in that business in 1857–'8; somewhere along there, and I don't know but before that; I think our business wasn't wound up until about 1861—the hardware business.

X Q. 72. Give me the year that you commenced the hardware business.

A. My best recollection now is in 1854 or 1855; somewhere along there; I couldn't be positive about it.

X Q. 73. Can you name any four years and swear absolutely positive that you commenced the hardware business in that time? If so, name the year.

A. I have told you just as near as I know.

X Q. 74. Question repeated.

A. I am very sure we commenced in 1854, but I won't swear positive to any one year; I can refer to books and tell you exactly.

X Q. 75. Books that were kept by you personally?

A. I didn't keep any books; I wasn't in the store; I was an outside partner.

X Q. 76. Who composed the firm, and what was the firm's style name?

A. Noble, Morris, O. L. Buxton, C. C. Buxton & T. H. Buxton, Morris Buxton and Company.

X Q. 77. Give me the number of years, as near as you can, from the time that you commenced as a member of the firm until your relations with the firm ceased.

A. Well, I should say somewhere from two to four years.

3161 X Q. 78. Please give me the year that your relations so ceased as near as you can.

A. Well, somewhere about 1856 or '7; somewhere along there we dissolved; it might have been as late as 1858.

X Q. 79. Did your relations as partner or otherwise with the firm cease to exist before 1860?

A. I think the business wasn't settled up until 1861.

X Q. 80. Did your relations continue until that time?

A. I think they did—that is, we sold out, but the business wasn't settled until 1860 or 1861.

X Q. 81. I notice you say we; my question only refers to yourself individually, and would you make the same answer with that understanding of the question, and who do you mean by we?

A. By we I mean O. L. Buxton, C. C. Buxton, and T. H. Buxton; I would have answered the question the same with that understanding.

X Q. 82. What interests did you personally have in the business after the dissolution until it was settled up in 1861, as you say?

A. There were some debts that had to be cared for that belonged to me; that belonged to the Co.; that I had an interest in when we dissolved partnership; I had no further interest in the sale of the goods.

X Q. 83. And did your brother Timothy?

A. Not that I know of.

3162 X Q. 84. Please state how your time was employed as a member of the firm of C. &. T. Buxton in the wagon — carriage business.

A. Well, I had a bench in the shop that I worked on sometimes when I hadn't anything else to do; I see to working the hands in the shop; I see to marking out lumber and selling work; when my brother was at home he generally attended to that himself; I see to the buying the lumber and getting out lumber sometimes; we used to get it out in the winter ourselves, and I see to that.

X Q. 85. How long did you so have a bench in the shop?

A. I guess I had a bench from—well, I don't know but that I had a bench most of the time that I could work on if I wanted to.

X Q. 85. About what portion of the time were you engaged at the bench?

A. I couldn't tell you.

X Q. 87. Were you away from your business at times engaged in the sale of wagons?

A. I was away at times either selling or collecting.

X Q. 88. For about how long were you away at a time on an average?

A. Sometimes two or three days and sometimes two or three weeks.

X Q. 89. And how frequently would that occur?

3163 A. If I was agoing off a distance it would generally occur once or twice a year; if it was near home it might occur three or four times a year, as we used to take work away fifty or sixty miles away by teams to sell or for another man to sell for us.

X Q. 90. When did Mrs. Windsor move from this village?

A. I can't tell you.

X Q. 91. Tell me as near as you can.

A. I can't answer that question; can't tell you. I don't know.

X Q. 92. Can't you give me any idea of it?

A. I don't know that I can.

X Q. 93. Will you swear positively that she lived in this village, on Buffalo St., in 1858? Please answer directly.

A. I won't swear positively that she did.

X Q. 94. Will you swear positively she did in 1859?

A. No, sir; I won't, for I don't know when she left here.

X Q. 95. Will you swear positively that Nelson W. Green was here in Warsaw in 1858?

A. No, sir; I wouldn't swear positively to that.

X Q. 96. 1859, '60, or '61? Please answer directly.

A. I couldn't swear positively to either of them.

X Q. 97. Haven't you stated to parties in Warsaw, about the time we were taking evidence here in February last, that Nelson W. Green was here in 1858 or 1859, in jail, or that in substance?

3164 A. No, sir.

X Q. 98. Will you swear positively that you did not state that in substance?

A. I don't think I said that in so many words.

X Q. 99. Will you swear positively that you didn't use words at that time that would convey the same meaning?

A. I don't think I ever told any one anything of that kind by which I meant to convey that idea.

X Q. 100. And weren't you informed by the person that you were talking with in February that it wasn't Nelson Green that was in jail, but that it was another person by the name of Green? Please answer directly.

A. I don't think I ever had any conversation of that kind. I have no recollection of it.

X Q. 101. Will you swear positively that you did not? Please answer directly.

A. I will swear positively that I have no recollection and that I don't believe I did, for certain reasons.

X Q. 102. Will you swear positively that Nelson W. Green was ever in this town after 1852?

A. No, sir; I wouldn't swear positive.

X Q. 103. Mrs. Windsor formerly lived on a farm south and west of this village, did she not?

A. She lived on a farm for a term of years. I don't know how long.

3165 X Q. 104. Is Mr. Windsor, her husband, dead?

A. He is, I suppose.

X Q. 105. When did he die?

A. I can't tell you.

X Q. 106. Did he die while they were on the farm?

A. I can't tell you. The farm on which she lived was about 2½ miles from here.

X Q. 107. And you wouldn't swear positively that Mr. Windsor ever lived in the village after he lived on the farm?

A. I wouldn't swear positively that he did.

X Q. 108. You say you have seen Nelson W. Green, as I understand you in your direct examination. Please describe the man.

A. I can't do it. I have seen a man that they called Nelson Green, but I don't know that I should know him if I should see him now.

X Q. 109. Can you describe the man that they called Nelson Green?

A. No, sir.

X Q. 110. Then your recollection is very vague and uncertain as to the time when Mrs. Windsor came to live in Warsaw, on Buffalo St., and the length of time that she remained here, is it not? Please answer directly, yes or no.

A. Well, I know she lived here a good while before she went to live on the farm; she lived on Buffalo St. and other streets.

3166 X Q. 111. Your last answer is evasive and irresponsive. (Question repeated.) Please answer directly.

A. Well, it is.

X Q. 112. Did you ever know of the person that you say they called Nelson Green stopping at Mrs. Windsor's, on Buffalo St., in this village, since the year 1852, of your own knowledge?

A. I don't know that I do, of my own knowledge.

X Q. 113. Wer-n't there other persons here by the name of Green at about that time, 1858 to 1860?

A. There was a man here by the name of Green, a brother of Mrs. Windsor, that used to be here frequently. I don't know his given name; I don't recollect it now; presume I knew it at the time.

X Q. 114. In answer to the last question, when you say a brother of Mrs. Windsor, you don't mean Nelson W. Green, do you?

A. I don't know whether this Green was Nelson W. Green or some other Green.

X Q. 115. When we were here in February taking evidence in this case wer-n't you present nearly all of the time of your brother's examination and the examination of Hiram E. Adams?

A. I didn't hear any of my brother's direct testimony. I think I heard a good deal of his cross-examination. I heard a part of Adams' testimony. I think I heard very little of the direct.

X Q. 116. Will you swear that you wasn't present and didn't hear over four-fifths of Mr. Adam's cross-examination?

3167 A. I don't think I did.

X Q. 117. How many days were you present during Mr. Adams' examination?

A. I called it eight days, but I wasn't present all the time.

X Q. 118. Wasn't you there, on an average, five or six hours a day?

A. I might have been there 4 or 5 hours a day; I can't tell how many hours I was there.

X Q. 119. During that examination of Mr. Adams did you not examine the history of Warsaw in relation to the burning of Breck, Gates & Herd's mills?

A. I did.

X Q. 120. Did you so examine it at his house?

A. I did.

X Q. 121. Have you examined it since in relation to that date?

A. I have not.

X Q. 122. When you testified that the fire was in 1859 did you give such evidence entirely independent of the reference of the history of Warsaw, or did that reference assist you in fixing the exact date testified to?

A. I knew without that the time of that fire from certain reasons.

X Q. 123. Wer-n't you present and heard Mr. Adams testify that the last burning was 1854?

A. I don't recollect of hearing any such testimony as to that from Mr. Adams.

X Q. 124. Do you recollect of hearing it from any one in this case; and, if so, who?

3168 A. I don't recollect of hearing that testimony from any one.

X Q. 125. Who first suggested examining the history of Warsaw at Mr. Adams' house at the time to which you refer?

A. Well, I don't recollect whether it was his wife's sister or myself; we had some talk about the testimony. I rather think I did.

X Q. 126. Haven't you talked with Mr. Adams about his testimony several different times?

A. I don't think I have; I think I have, maybe, two or three times; have no recollection of speaking about his testimony in particular, except this time.

X Q. 127. Will you swear positively you have not as many as three different times?

A. No; I wouldn't swear positive.

X Q. 128. How did you know the history of Warsaw would give the date of that fire at that time?

A. I didn't know until I looked at it; it gives a history of a good many things of that kind, and I thought likely it would that.

X Q. 129. You so examined the history of Warsaw to find out the date of the first burning, did you not, positively?

A. I thought I knew when the mill was burned without that; when I saw it there that strengthened my memory that I was right.

X Q. 130. Give me the month that the burning occurred in '59?

A. I think it was burnt in October, 1859.

X Q. 131. Will you be positive?

3169 A. I am very positive.

X Q. 132. What day of the month or day of the week did it occur?

A. I think it was the 14 day of Oct.; that is my recollection; I wouldn't be positive about —.

X Q. 134. Did the history give the month and the day of the month that such burning occurred?

A. I think it did.

X Q. 135. Did examining the history of Warsaw assist you in fixing the month and the day of the month that the fire occurred?

A. I think likely it did—that is, the day of the month; I was well satisfied with the month before.

X Q. 136. Now, that shop was rebuilt and burnt again, was it not?

A. Yes.

X Q. 137. What year, month, and day of the month did it burn the second time?

A. I think it was burnt the second time in six years from that time from what I know and what I hear, not from what I saw in the history of Warsaw.

X Q. 137½. And didn't the history of Warsaw give the date of such second burning right in connection with the first burning?

A. I rather think it does, but I won't be positive about that.

X Q. 138. Were you present at the second burning?

A. I think I was.

X Q. 139. Have you any doubt about it?

A. No; I don't know as I have; I am pretty positive I was there.

X Q. 140. Will you swear positively that you were present at the second burning of that shop?

A. No, sir; I wouldn't swear positive; I would swear to the
3170 best of my recollection that I was there.

X Q. 141. What time a day — the second fire occur?

A. I think about 12 o'clock m; I think while the folks were gone to dinner—the hands.

X Q. 142. Will you swear absolutely positively that it occurred about that time?

A. I wouldn't swear positive; that is my best recollection.

X Q. 143. What time a day did the first fire occur?

A. In the night some time—the fore part of the night, I think.

X Q. 144. Will you swear positively that it was in the fore part of the night?

A. I think it was before 12 o'clock at night.

An adjournment was here taken until 9 a. m., March 31st.

March 31st, 9 o'clock a. m.—Parties met pursuant to adjournment.

X Q. 145. Where did you live at that time, in reference to the location of this fire, giving distance?

A. I lived right east on Livingston street; I should judge some fifty or sixty rods; might have been more.

X Q. 146. What did you first observe of the fire?

A. There was an alarm given of fire and I started out and found out what it was.

X Q. 147. About how far along had the fire advanced when you got there?

A. Well, I can't tell; I think the inside of the mill was pretty well started; the fire was above and below.

X Q. 148. What efforts were being made when you first got there to put out the fire?

A. I think they had formed and were forming a line, and I think they had formed line to this well, a line up to the race; they were forming a line to the creek, to the race or pump, or anywhere where there was water.

3171 X Q. 149. Please say what you mean when you say anywhere where there was water?

A. Well, I mean the nearest point to the mill; you could get water at two different places from the creek near the mill; I should think the distance would be about alike.

X Q. 150. Was a line formed to each of thoso two places mentioned in your last answer?

A. I think there was a line formed soon after I got there on the south side of the mill to the creek.

X Q. 151. Question repeated and witness requested to answer the question.

A. Well, I don't recollect that both lines were formed; still they might be.

X Q. 152. If you haven't any recollection that both lines were formed to the creek, why did you say anything about their getting water to any but the one place to the creek?

A. Because there was two or three places where they could get water if they had men enough to form a line.

X Q. 153. In my inquiries I have asked what was done or what they did do, not what may have been done and what they could do; and I ask you again just what you know was done in getting water for that fire that you are able to swear positively to.

3172 A. I have told you just as near as I can every effort made to put out the fire, and these lines were formed as I have told you; I don't know as I can explain it any plainer than that.

X Q. 154. Mr. Buxton, I must insist that you shall not theorize and generalize in answering questions that call for specific facts to which you are asked to testify positively to. Cross-question 153 repeated, and you are requested to answer the same, so far as you can on your positive knowledge.

A. I know there was water got from this well as long as there was any water to be got out of it; I have stated before that
3173 they got water from the creek; they got water from the race.

X Q. 155. How many different lines of pails were formed that you will testify positively to?

A. I think there were three lines, and that is my best recollection. I won't swear positive.

X Q. 156. Question repeated.

A. I could swear positive that there were two lines formed—one to the creek and one to the well or race.

X Q. 157. What was the length of the line that was formed to the creek?

A. I can't tell you exactly.

X Q. 158. Give me your best recollection.

A. It was probably 8 or 10 rods; it might have been less or might have been more.

X Q. 159. Give me some idea of the amount of water in the creek at that time; its width and depth of it.

A. I can't give you the amount of water in the creek; I can't tell you that; there was what we wanted to use.

X Q. 160. Give me the ordinary size of the creek at that point.

A. The ordinary size would be probably a couple of rods wide at this time a year; in some places it would be wider and some places narrower. I can't tell you the ordinary depth.

X Q. 161. How long was the line of pails or buckets that was formed to the race?

3174 A. When the fire first commenced I think that line was 10 or 12 rods, I think probably; I never measured the distance; it is guess-work; but in a short time the heat was so intense that you couldn't get so near the building as our Co. had a large amount of lumber close by the shop, between the shop and the mill, that was already afire, and the heat was so intense that you couldn't get more than half way across the lot at times with water; the flames came right over.

X Q. 162. Could a pailful of water be dip-ed readily from the creek at that time where the line of pails was formed to?

A. I don't know whether it could or not; don't think I was there at the creek during the fire; my impressions would be that it could be.

X Q. 163. State at what point of the race in reference to your shops the line of pails was formed.

A. I think the line was formed right back of the wareroom; north of the wareroom the line might have been formed to the alley; there was a narrow place that a man could get down and dip it up; that is, the bridge didn't cover the whole alley; the shop was on the south side of the alley at this point and the ware- was on the north side.

3175 X Q. 164. You say you think the line was formed to the race back of the wareroom. "It might have been formed to the race in the alley." Will you swear positively that it was formed to either of those places; and, if so, to which one?

A. I wouldn't swear positively. There might have been two lines—a line from the race and a line from the alley to connect with the main line at the well.

X Q. 165. I see you persist in lugging in the assertion "it might have been," when the question calls for your positive knowledge. Now, will you please pay attention to the question, which is repeated, and answer the same from your positive knowledge?

A. I wouldn't swear positive.

X Q. 166. About how many people were there at that fire?

A. I can't tell you.

X Q. 167. Give us some idea.

A. I can't tell you; I didn't count.

X Q. 168. Although it may be vague and very uncertain evidence, still I ask you to give me something of an idea of the number there.

A. That is something I can't tell you. I don't know anything about it. There was enough to form the lines I have stated, and there was some standing round. I guess pretty much of the village was out.

3176 X Q. 169. Will you swear positively that there was at any one time an independent line of pails formed to that well? Please answer directly, yes or no.

A. I wouldn't swear positively that there was an independent line.

X Q. 170. How long would it take to pump a pail of water from that well at that time?

A. I can't tell you; probably half a minute; maybe that and maybe less.

X Q. 171. Name any person and every person that worked this pump during that fire that you are now able to swear positively to.

A. I can't give you the name of any person.

X Q. 172. Can you give the names positively of any of the persons that took water directly from that well at that fire? I am asking for your positive recollection.

A. I can't give you the name of any one that I can swear positive.

X Q. 173. How long was that pump used at that fire?

A. My impression is that it might have been an hour or hour and a half; might have been two hours.

X Q. 174. Now, give me the length of time that you will swear positively to that was called for in the last question.

A. I can't swear positive to any time.

X Q. 175. Will you swear positive that it was so used for ten minutes?

3177 A. I would'nt swear positive on that; my best recollection is the best I can do for you.

X Q. 176. You have stated to us, outside of your evidence, here in the presence of the notary, that this well gave out at that time; at what time in reference to the burning did it so give out?

A. I could'nt tell you what time it gave out.

X Q. 177. Did it give out?

A. My best recollection is that it did.

X Q. 178. Will you swear positively that 20 pails of water was pumped from that well at that time? Please answer directly.

A. No, sir; I wouldn't swear positively.

X Q. 179. Would you make the same answer as to ten pails?

3178 A. I wouldn't swear positively.

X Q. 180. Would you make the same as to two pails of water?

A. I wouldn't swear positively anything about —; I know the well was used that night.

X Q. 181. Mr. Buxton, the latter portion of the answer you gave to the last question is not responsive to the answer, and will you swear positively that you personally operated that pump any at that fire? Please answer directly.

A. No, sir; I wouldn't swear positively that I did.

X Q. 182. Which way did the handle of the pump extend?

A. Well, sir, I can't tell you that.

X Q. 183. Can you tell me the direction the *direction* spout extended?

A. I think the spout pointed to the south—southwest probably—as near west as anything.

X Q. 184. Will you swear that it didn't point directly east or nearly so positively?

A. No, sir; I wouldn't swear positively.

X Q. 185. What was the length of the pump barrel?

A. I can't tell you how long it was; I never measured it.

X Q. 186. Now, give me your best recollection as to its length.

A. From 15 to 20 inches, I should judge; that would be all guesswork—my best recollection.

X Q. 187. Where did you first see that pump?

A. I can't tell you where I first saw it as I know of; the
3179 first I recollect of it was on this pipe at the west end of the
blacksmith shop; I might have seen it before.

X Q. 188. Have you any distinct present recollection of ever seeing that pump before? Please answer my question directly.

A. I don't know that I have. I couldn't swear positively that I have or hadn't.

X Q. 189. Question repeated, and the notary requested to read it to him.

A. I have not.

X Q. 190. What quality of water was obtained from that well?

A. Good drinking water.

X Q. 191. That you will testify to positively *to*, will you?

A. I will testify that it was used by the hands. It was good drinking water.

X Q. 192. Question repeated.

—. I called it good drinking water; just as good water as we got anywhere on the lot that I know of.

X Q. 193. What month did you first observe that well?

A. I think the well was put down in the month of August, but I am not positive.

X Q. 194. Question repeated.

3180 A. I can't tell you what month that is. I can't swear positive what month.

X Q. 195. Give your best recollection.

A. My best recollection is that it was the month of August.

X Q. 196. Was it in complete working order when you first saw it?

A. I can't tell you.

X Q. 197. How long was that well used there?

A. I can't tell you how long.

X Q. 198. Give me your best recollection.

A. I can't tell you how long that well was used there. I don't know whether (or when the) shop it was enlarged; it was used until that time, when the shop was built over it or enlarged.

X Q. 199. Now, Mr. Buxton, in my last question I asked you nothing about the shop being enlarged. That portion of your answer, and, in fact, your whole answer, is not responsive to the question and in no manner fixes the time called for, and I now ask to pay strict attention to the question, which is here repeated.

A. That well was used there in 1859.

X Q. 200. Question repeated again.

A. My best recollection is it was used there two or three years. It might have been more; I can't tell you time.

X Q. 201. Is that the best idea of the time that you can give me?

3181 A. It is.

X Q. 202. Was it used until the addition was built to your shop, referred to in your testimony?

A. I can't tell whether it was or not.

X Q. 203. Was this pipe taken up?

A. I think it was; can't be positive.

X Q. 204. Have you a distinct recollection now of seeing it taken up?

A. I have not.

X Q. 205. Have you any recollection of seeing the pipe after it was taken up?

A. I have no recollection of seeing the pipe; I — no distinct recollection of seeing it.

X Q. 206. Give me your best recollection of the length of time intervening between the time that you saw this well the last time and the time the ground was broken preparatory to the time of putting up the extension to the shop.

A. I can't give you any time on that; I don't know.

X Q. 207. Do you mean to be understood by your last answer that you haven't any recollection whatever of such time?

A. I mean that I don't know what time—how much time there was between.

X Q. 208. Question repeated.

A. I have answered it as well as I can; that is a question I can't answer.

3182 X Q. 209. You say you can't answer it. Is it because you haven't any recollection on that subject? Please answer the question directly, yes or no.

A. I have no recollection.

X Q. 210. Then, if you haven't any recollection of the time intervening between the time that the well was so taken up and the time the extension was put on the shop, it may have been two or three years. Is not that true?

A. I can't answer it; I don't know.

X Q. 211. How was such extension built, by the job or by the day?

A. I can't tell you.

X Q. 212. And can you tell me who the masons were that put on the extension?

A. I can't tell you.

X Q. 213. It was a brick addition, was it not?

A. It was.

X Q. 214. Who performed the carpenter work on the building?

A. I can't tell you that.

X Q. 215. Was the mortar prepared on the premises there for the construction of that extension?

A. I presume it was.

X Q. 216. Do you know positively where the water was obtained for such mortar?

A. No, sir; I don't.

X Q. 217. You have testified to a drive well having been
3183 put down inside the shop. How long after this shop was
completed, or was it before the shop was completed—I mean
the extension—that the well was put down?

A. I can't tell the time it was put down, how long after it was put down.

X Q. 218. Will you swear that it wasn't put down until the extension was fully completed?

A. I wouldn't swear that it was or was not.

X Q. 219. Now, give me your best recollection when the well was put down in the shop, in reference to the time that the extension was completed.

A. Now, my best recollection on that is that the well wasn't put down until pretty near the time of the completion of the shop; I mean just before its completion.

X Q. 220. Do you know of your own knowledge what tools and appliances were used in the construction of the first driven well testified to by you?

A. I don't know what tools were used.

X Q. 221. Do you know what tools and appliances were used in putting down the second driven well?

A. No, sir; I don't.

X Q. 222. Give me your best recollection of the date the extension of the shop was put up.

A. I can't give you the exact time; I don't know.

X Q. 223. Have you any recollection whatever of that time;
please answer directly.

3184 A. I have some recollection.

X Q. 224. Please give me that recollection.

A. It was built on before I sold out; before '66.

X Q. 225. Have you any idea how many years before you sold out in '66 the extension was so put on?

A. I don't—the time it was put on. I don't know that I have any recollection on that point, of the time it was put on.

X Q. 226. Have you any books of account that will enable you to fix that date?

A. I don't know but an old book would show the time that addition was put on.

X Q. 227. Have you examined those books in reference to this case?

A. No, sir; I have not.

X Q. 228. Have you examined any books, papers, memoranda, for any purpose whatever in connection with this case?

A. I have asked some questions. I haven't seen any books.

X Q. 229. Have you examined any papers or memoranda whatever for any purpose in reference to this case?

A. I don't know that I have.

X Q. 230. Will you swear you have not?

A. No, sir; I will not swear that I have not.

X Q. 231. In answer to cross-question 228 you say you have asked some questions; please give me the persons' names that you have so asked questions.

3185 A. Noble Morris and Frank Lewis.

X Q. 232. Any other persons?

A. I don't know but what I have asked some questions of my brother; I can't recollect; I have talked with him some.

X Q. 233. Did you ask Noble Morris & Frank Lewis in reference to any dates in connection with your drug-store business & hardware business? Please answer directly.

A. I did.

X Q. 234. Was any books consulted, either by you or them, that you know of in reference to such dates?

A. I think they looked at their books and gave me the dates; I don't think I looked at the book at all.

X Q. 235. Did you see the second driven well put down?

A. I don't recollect that I did.

X Q. 236. Do you know of your own knowledge who put it down?

A. I do not.

X Q. 237. Do you know where the pipe came from that was used in it?

A. I do not.

X Q. 238. Or the pump that was used on it?

A. I do not know where the pump came from of my own knowledge.

X Q. 229. Do you know positively whether your brother
3186 Timothy was at home at that time—time the second well was
put down?

A. I do not.

X Q. 240. Have you obtained any dates in relation to this case other than those that you have testified as having asked Morris & Lewis questions in regard to from any other person, books of account, or otherwise, papers or memoranda?

A. I have talked with Frank Herd about certain dates that I was not sure of exactly. I have examined the history of Warsaw.

X Q. 241. Your answer is not responsive to my question.
3187 Question repeated.

A. I have.

X Q. 242. Have you asked questions of any one besides Frank Lewis, Herd, and Morris in reference to this case?

A. I have; of my brother; with Adams. No one else that I recollect of now.

Q. 243. Have you obtained any dates in relation to this case from any books, papers, or memoranda, aside from the history of Warsaw and the books of Morris & Lewis referred to?

A. I don't think I have; I don't recollect that I have.

Q. 244. What time was it that you asked Franklin Herd questions about certain dates?

A. It was yesterday morning, I think.

Q. 245. Then, as I understand you, whenever you have testified to the year 1858 such testimony was given without the aid of any papers, books of account, or memoranda to refresh your memory? Is not that so?

A. I can't answer that question without making an explanation.

Q. 246. Did any books, papers, or memoranda assist you in fixing the date 1858 whenever you have testified to that date? Please answer directly.

A. Well, dates and circumstances, certain things, go to fix the time; that is where I asked to explain, if you would let me; I could do it in a minute.

Q. 247. Question repeated, your answer being entirely irresponsive and irrelevant.

A. It did.

Q. 248. Please state just what books, papers and memoranda assisted you in fixing that particular date, 1858. 3188

A. Our company books assisted me in fixing that date, for one; the fire in 1859 helped me to fix the date, in another way, was another thing; Adams & Fargo were engaged in building rakes — 1858; that was the year the engine was put in; I know that was the year before the fire.

Q. 249. Question repeated.

A. Well, I think our old company books assisted me in that, for one thing—the books that we had in the shop at the time.

Q. 250. Any other books or papers assist you to fix that date?

A. I don't recollect of any now.

Q. 251. You state that your company books assisted you in fixing that date. When did you examine them with reference to it?

A. I have never examined — myself; I have set there in the room with my brother; he has set there and examined them; I and my brother talked about certain charges on the book.

Q. 252. Were those charges or entries that you have referred to in your handwriting?

A. No, sir.

Q. 253. Is there any entry in your firm books in relation to the Breck, Gates & Herd fire?

A. Not that I know of.

Q. 254. Is there any entry in those books directly relating to this driven well?

3189 A. I don't know that there is.

Q. 255. Was there an engine purchased by the firm that succeeded you in the carriage and wagon business, if you know?

A. Not that I know of; not that — recollect of now.

Q. 256. Was there an engine in the shop when you sold out in 1866?

A. Well, I think there was, but I ain't sure.

Q. 257. Did you have an engine in your shops at the time the extension to your blacksmith shop was made?

A. We had an engine in a shop, in the wood shop, at the time, I think.

Q. 258. Don't you know whether you did or not at that particular time?

A. I don't think I could tell exactly without referring to some dates, because I don't know when that extension was put on.

Q. 259. Did you have an engine in your shops in 1862 or 1863?

A. I couldn't tell you.

Q. 260. Did you in 1860 or 1861?

A. Yes, sir.

Q. 261. Who owned that engine at that time—1861 or 1862?

A. I think H. E. Adams owned it.

Q. 262. Describe that engine.

A. Well, I think the engine was what we called a five-horse-power engine; it was what I called a rotary engine, with the engine on the top of the boiler; or, in other words, the engine and boiler were attached; I can't describe it; the boiler was horizontal.

Q. 263. Where was water obtained for that engine during the years 1860 and 1861?

A. I think from the race under the shop.

Q. 264. Any other place that you will swear positively to or have any recollection of?

3190 A. I have no other recollection that I know of; if the water was in the race, if it was, we supplied the engine from some other source.

Q. 265. Have you any recollection of obtaining water for the engine from any other source, aside from the race, during the years 1861 or 1862?

A. I have no recollections.

Q. 266. Have you any recollections of the race being dry during any of the time of those two years?

A. I don't know that I have.

Q. 267. Have you?

A. I have not.

Q. 268. Have you any recollection of the race being dry during any portion of the year 1859?

A. I have not.

Q. 269. Or that water was obtained for the engine aside from any other source than the race during that year?

A. I have no recollection of it.

Q. 270. Have you any present recollection that water was taken from the driven well testified to, to be used in this engine, after the year 1858?

A. I don't know that I have; I have no recollection of it.

Q. 271. Was water ever taken from this well, to be used in the engine, that you now recollect of?

A. Yes, sir; there was.

Q. 272. What year was that?

A. That was in 1858.

Q. 273. For what reason was it so taken?

A. There was no water in the race.

Q. 274. Please state why there wasn't any water in the race.

3191 A. They were repairing the race; I think they were putting in a waste-gate; that is my present recollection, and I think they were clearing the race out—clearing the mud out from the bottom of the race.

Q. 275. Who do you mean by they?

A. The man that owned the mill or the men that owned the mill.

Q. 276. Who owned the mill at that time?

A. Well, I can't tell you, but I can give you my best recollection of it; I think Judge Ferris, a man by the name of Ferris, owned it at that time, but I am not sure.

Q. 277. Who carried water to that engine from the well at that time?

A. Lorin Adams carried water; no other one that I can recollect of now.

Q. 278. Is he living?

A. No, sir.

Q. 279. How often did he carry water that you now recollect of?

A. I think he carried water every day, more or less.

Q. 280. Please state how often he carried water that you will swear positively to.

A. I couldn't swear positive to any particular time; I know I have seen him carry water from the well to the engine.

Q. 281. For how long did that continue, that water had to be carried from the well to the engine?

A. I can't give you the length of time.

Q. 282. Give me your best judgment.

A. Well, I should say from one to two months; until the water was let into the race again; it might have been longer than that.

Q. 283. What month was the water taken out of the race?

A. I can't tell you.

Q. 284. Give me your best judgment.

A. I can't tell you; I have no recollection as I know of on that.

Q. 285. Then, if you hav-n't any recollection on it, might it not have been in the year 1859?

3192 A. No, sir.

Q. 286. Then I ask — give me your best judgment as to the month.

A. Well, my best judgment would be that it was either — or July, 1858, that the water was taken out of the race.

Q. 287. Was water obtained from any other source for the engine than this driven well during the time the race was dry?

A. I don't recollect that there was.

Q. 288. How many pails full per day were taken to this engine during that time?

A. I can't tell; some days there would be more and some less; it would depend whether the engine run all the time or not.

Q. 289. When the engine run all the time, then, about how many pails full?

A. I couldn't tell you how much water it would take.

Q. 290. Have you any idea of the quantity?

A. I have; there was a barrel stood beside the engine that the pump from the engine went into, and also the exhaust steam went back into that barrel. When the engine was full in the morning I should think that two barrels of water would run the engine through the day with what exhaust steam came in from the barrel, but that is mere guess-work; I am — certain about it.

Q. 291. Have you any recollection as to how long it took to supply the water from this pump to this engine?

A. I have no recollection how long it would take, particular.

Q. 292. I understand you, then, as meaning to be understood that you hav-n't any present recollection *as* of the time Loren Adams was engaged in carrying water each day; am I correct?

A. I don't know that I have.

Q. 293. You have spoken of a dug well; where was that located, with reference to the blacksmith shop, in 1858?

A. It was located on the southwest end of the blacksmith shop, or nearly; I don't know but quite.

Q. 294. Give the dimensions of the extensions to that shop.

A. I can't give you the size of it—that is, I can give the
3193 width; it was 24 feet wide, north and south; can't give the length; I should say some 30 or 40 feet in length; it might have been less than that.

Q. 295. How was water obtained from the race for that engine?

A. I think most of the time it was taken from a pipe that went directly into the race, and a part of the time there was a barrel sunk near the race and a pipe put in from the engine to the barrel.

Q. 296. What kind of a pipe was it that went directly from the engine to the race?

A. I can't tell you whether it was iron or lead.

Q. 297. About how many years was it used before the barrel was sunk by the side of the race?

A. I can't tell you.

Q. 298. Give your best judgment of the length of time.

A. I can't tell you what time that barrel was put in; have no recollections of it whatever.

Q. 299. Was the water conveyed from the race to this barrel which was sunk beside *of* it through a pipe?

A. No; I think there were holes bored in the barrel to let the water in.

Q. 300. Where in the barrel?

A. In the side towards or near the bottom.

An adjournment was here taken to April 1, 9 o'clock a. m., 1880.

April 1, 1880.—Parties met pursuant to adjournment.

Q. 301. Is your answer to last question made from your present positive recollection or is it the impression that you have?

A. It is the impression that I have.

Q. 302. How did the water get into the barrel, by means of these holes?

A. I can't tell you.

3194 Q. 303. You say the soil was a gravel*ly* loam near where this well was driven. Was it the same soil where the barrel was sunk by the race?

A. I think the soil in the race was more of a gravel.

Q. 304. I have asked you nothing about the race.

Question repeated.

A. It was.

Q. 305. Don't you know, Mr. Buxton, that, taking into consideration the nature of the soil where this barrel was sunk, the holes towards the bottom, as you have testified, without any other inlet, that it would be an impossibility to keep that barrel filled *of* water or anywhere near full?

A. I think the water would go into that barrel, the nature of the soil — full of water; I think it would not be an impossibility to keep it full.

Q. 306. How far from the race was the barrel?

A. I think the barrel was sunk close by the race; I think within a foot of the race at low water.

Q. 307. How deep was the dug well that you have referred to?

A. I can't tell you the depth of that well.

Q. 308. Give me your best judgment as to its depth.

A. My judgment would be 10 to 20 feet.

Q. 309. When was that put down?

A. I can't tell you.

Q. 310. Was it after you moved there or before?

A. I think it was after we moved there.

Q. 311. Do you answer from present recollection or from your opinion?

A. I answer from present recollection.

Q. 312. State briefly what facts and circumstances that assist you in the recollection of that dug well—I mean the time it was put down?

A. I can't tell you any circumstances or any time when
3195 that well was put down; I can only say this: I don't — that
there was any such well on the lot.

Q. 313. Have you any present recollection sufficient to state positively that it was put down within any ten years?

A. It was put down after we went there. No, sir; I can't. I don't know when it was put down.

Q. 314. Will you swear positively that it was put down before 1858?

A. Yes, sir; I will.

Q. 315. What kind of pump did you have on it in 1857, if you had any?

A. There wasn't no pump in it.

Q. 316. Was there any in 1856?

A. I don't think there was.

Q. 317. In 1855?

A. Can't tell you.

Q. 318. Can you state whether there was a pump used in it in 1855, from your present recollection?

A. I don't recollect of any pump being in the well at all.

Q. 319. Was there any pump in the well after 1857 that you now recollect of—I mean this dug well?

A. I think there was a pump in it after that.

Q. 320. State what year that was put in, as near as you can?

A. I can't tell you what year it was put in.

Q. 321. Have you any idea of the year?

A. I think there was a pump in some time after 1859, and there might — been before, but I think not.

Q. 322. Describe that pump and how it worked, as near as you are now able to.

A. I think it was a common wooden pump, a valve pump.

Q. 323. What was the occasion of getting that pump, if you know?

A. I can't tell you.

Q. 324. Was it wooden tubing that went from the pump down into the water of the well?

3196 A. That is my impression.

Q. 325. Do you remember of any iron pump or other style of pump being used at the dug well, except the wooden pump you have testified to?

A. I don't recollect of any other pump; there might have been.

Q. 326. You say there might have been; have you any present knowledge of any other being so used on that dug well?

A. I have a distant recollection.

Q. 327. Have you such a recollection that would enable you to swear to anything in regard to it?

A. My recollection is not good enough to swear positive.

Q. 328. Give me the date of the use of such other pump in the dug well.

A. I can't give you the date.

Q. 329. Can you name any five years and swear that you saw it within that time?

A. I think before 1858 there was another kind of a pump in that well, but I am not positive.

Q. 330. In answer to cross-question 315 you say there wasn't any pump in it in 1857; also, in answer to the next question, you say, "I don't think there was in 1856 and can't tell whether there was in 1855." In view of your last answer, do you wish to change that evidence?

A. I don't know as I do.

Q. 331. Is your present recollection vivid enough to enable you to describe the pump that you say you have distant recollection of that was used in that well?

A. I think I could describe it so that you would know what it was.

Q. 332. Will you swear positively that any pump was used in that well prior to that wooden pump?

A. No, sir.

Q. 332½. And will you swear positively that that wooden
3197 pump was so put in after 1858?

A. No, sir; I wouldn't swear positive about it. That is my best recollection.

Q. 333. And will you swear positively that there wasn't any pump used in that dug well during the year 1858?

A. I will swear positive that there was no pump in that well in 1858.

Q. 334. Can you name any other one year between 1850 and 1865 that you will swear positively that there wasn't any pump used in that dug well?

A. There wasn't any used in 1859.

Q. 335. Are you absolutely positive of that last answer?

A. I am very positive.

Q. 336. Can you name any other that you will swear positively to between those dates?

A. I don't know as I can.

Q. 337 I answer to cross-question 318, you say: "I don't recollect any pump being in the well at all," referring to this dug well. Is that answer true? Please answer directly, yes or no.

A. It isn't strictly true, because I have a faint recollection of — pump being in that well at the time you asked the question. I don't know that I had.

Q. 338. How long was that wooden pump used in the well?

A. I can't tell you.

Q. 339. Have you any idea how long?

A. I can't tell you. I have some distinct idea.

Q. 340. Have you any recollection as to the length of time?

A. I have some recollection.

Q. 341. Give us that recollection.

A. I think there was a wooden pump in that well after 1859, between that and the time I sold out. I can't say how long a time it was in. I have no recollection or idea of the time it was in.

3198 Q. 342. Please give me the facts and circumstances that you now distinctly recollect that enables you to swear positively that there was no pump in that well in the year 1859.

A. I know one fact, that we drawed water from that well with a pail and a pole in 1858 and 1859, and I think a part of 1859. In 1858 I know that there was no pump in that well.

Q. 343. Is there any other fact or circumstance that you now positively recollect that enables you to say that there was no pump in that well in 1859?

A. I know that there was no pump in that well the time of the fire, in 1859.

Q. 344. Any other fact or circumstance that you positively recollect?

A. I don't recollect any now.

Q. 345. Please state why you say positively that there wasn't any pump in that well at the time of the fire, in 1859, from your positive recollection.

A. I can't answer that question no nearer than I have. The fire is what I have to go by. I have no recollection of that well being used at all at the fire.

Q. 346. Do you mean to be understood as testifying that, because you hav-n't any recollection of the well being used at that fire, in 1859, that you will swear positively that there wasn't any pump in it at that time? Please answer directly, yes or no.

A. Yes, sir; I mean to be positive that there wasn't no pump in that well at that time.

Q. 347. Question repeated. The answer is not responsive.

A. I don't know as I could swear positively that there wasn't any pump. It is my recollection that there wasn't. That — not; I think there was not.

Q. 348. Was the water in the dug well used during the year-1858 and 1859?

3199 A. There might have been some water used out of the well in 1858 and 1859.

Mr. Buxton, I have cautioned you against using the expression "there might have been." I am asking you for your present recollection.

Q. 349. Question repeated.

A. I can't tell you exactly about that?

Q. 350. Don't you know that the water in the driven well was not fit to drink, and for that reason the water for the shops was obtained from this driven well during 1858 and 1859?

A. No, sir; I don't know that.

Q. 351. Do you mean to say that that is not true?

A. I have testified to that question once before—it was used to drink. I think that the water in the drive- well was good to drink.

Q. 352. Have you any knowledge or recollection whether that engine was repaired—I mean the one in the shop owned by Adams?

A. I can't tell you where it was repaired. I have some knowledge about it.

Q. 353 Give us that knowledge.

A. The engine was repaired some time while I was there in business. I can't give you the date unless you allow me to refer to our old Co. books. They will give it—the books which were kept by my brother.

Q. 354. Mr. Buxton, please explain how an entry will appear in your books as to the repairing of that engine that belonged to Mr. Adams.

A. Well, sir, it would probably appear in our books in this way, that whatever the repairs cost we paid for Mr. Adams, as we owed Mr. Adams, and whatever money he got came from us.

3200 Q. 355. Do you mean to be understood as swearing that all money that you paid Mr. Adams is shown upon your books, what he used it for?

A. No, sir; I didn't mean any such thing.

Q. 356. Have you any recollection as to whether you paid him the money for these repairs?

A. No, sir.

Q. 357. Or any one else?

A. No, sir.

Q. 358. Then, how are you able to testify unqualifiedly that your company books will give that date, as you did in answer to cross-question 353?

A. I meant to say I thought they would give it. I thought I did say it.

Q. 359. Have you any recollection of the year that it was so repaired?

A. I can't say that I have.

Q. 360. Or how much the repairs cost?

A. I can't tell you.

Q. 361. From the year 1858 to the year 1865 what portion of the time was your brother Timothy away from home, on an average?

A. I can't tell you; can't give you any idea of that.

Q. 362. Give me the names of the men that were employed in your shops during the year 1855 that you will swear positively to.

A. Can't give you all of them. I will give you some of them that I will swear positively to. Ferris Norton worked for us in 1855. Mr. Bisby worked for us. Bisby is in New Haven, Ct. Norton is in Leadville. I only know by letters. I think Burr worked for us at that time, and he lives here in Warsaw. Eli Dibble worked for us in 1855. He lives in Warsaw. I think C. C. Williams worked for us, but I am not sure. He lives here; his family is here, but he is in Detroit, Michigan, as I understand. There are others that I think of, but I wouldn't swear positive.

3201 Q. 363. You say you give the address of some of these men from letters, letters addressed to you?

A. Some of them were.

Q. 364. What letters — addressed to you; from whom?

A. Ferris Norton, Charles Williams. I have a letter from Bisby, from Rochestert, but I understand since that he has gone to New Haven.

Q. 365. What other letters have you seen?

A. I hav-n't seen any, but I understand from Mr. Main that Bisby is in Connecticut.

Q. 366. Do you carry on a regular correspondence with these men you have named?

A. I have written to these men, and they have answered my letters. I don't know as I have written but one letter to Williams; think I hav-n't.

Q. 367. How many to the others?

A. I have written one to Bisby; three to Norton, at Leadville.

Q. 368. And wer-n't each of these letters that you wrote on the subject of this alleged well?

A. No, sir.

Q. 369. Do you testify positively that you did not make inquiries in regard to this well, or what they knew about it, or in regard to some facts in regard to it, in each of these letters?

A. Yes, sir; I swear positive that there wasn't a word of any kind, description, or anything else in either of these letters.

Recess was here taken until 2 o'clock p. m.

At 2 o'clock p. m. parties met as before.

Q. 370. Please give me the names of the men that worked for you in 1858 that you are able to swear positively to?

A. Well, I think I can swear that all of these men that I said worked for us in 1855; Adams also worked for us.

Q. 371. In your answer to direct question 33 you name the machinery you had in your shop. At what particular date or period of time does that answer apply?

A. That answer applied to 1858, I think; that is what I meant to be understood.

3202 Q. 371. Why did you apply it to 1858, when you had not been asked that date, in reference to the machinery?

A. Because in the spring of 1858 the engine was put in the shop, and what machinery we had in the shop was put in the shops at that time. I don't (?) think we had a planer at that time, but it might have been. My best recollection on that is that we had a lathe, an upright saw, and a buzz-saw, and we might — had a planer; I won't be sure.

Q. 373. Will you swear positively that the dug well was dry during any part of the year 1861?

A. I would not swear positive it was.

Q. 374. 1860?

A. I wouldn't swear positive.

Q. 375. 1859?

A. In my opinion, there was water in the well all the time. What I mean by a dry well is one that is perfectly dry, without any water.

Q. 376. Will you swear positively that there was any time during the years 1859, 1860, and 1861, if so, which of — years, this well was dry, so that it could not be used for ordinary purposes of a well?

A. I wouldn't swear positively.

Q. 377. I ask you the same question in regard to the year 1858?

A. I wouldn't swear positive to 1858.

Q. 378. State, if you know, personally, for what particular object that first driven well testified to was put down for.

A. It was put down to get to the engine in 1858.

A. 379. Any other object that you now remember that caused it to be*ing* put down at that time?

A. I don't recollect of any other particular object now. We hadn't got water for the engine—water enough to supply the engine.

3203 Q. 380. Give me the distance that well was located from the engine.

A. I should say from four to five rods; might have been more, a little; I couldn't give the distance very accurately, for I never measured it; the smith shop was between the engine and this well.

Q. 381. Do you know any reason why this well could not have been put down right near by the engine? Answer directly.

A. One reason would be because it would be right in the — where we drove around the shop.

Q. 382. Couldn't it have been put right down through the floor right by the engine?

A. It couldn't without being put down right down in the gangway, between the wall of the shop and the engine, where it would be right in the way.

Q. 383. Do you pretend to swear positively here that that driven well, occupying a space of about a foot square, could not have been put down at that time just north of your wood shop, where the engine was, without being in the way, any more than the space it occupied? Answer directly.

A. It couldn't, and I can explain that if you want an explanation.

Q. 384. Give me, as near as you can, the number of square rods — land between your wood shop and your blacksmith shop, as they stood at that time.

A. There might have been three or four square rods; might have been more or less; I can't tell you; there was a bridge leading from the second floor — wood shop, where the engine was, at about the center of the department where the engine was in, about eight feet wide, slanting to the ground, reaching the ground about 25 or 30 feet from shop.

Q. 385. Couldn't this well — been put down under these stairs and just at the north side of them?

A. It could.

Q. 386. Do you know positively and of your own knowledge whether these reasons you have given were taken into consideration in putting down that well where it was?

A. I don't know.

3204 Q. 387. Was there any curb platform around this driven well?

A. I don't recollect whether there was any curb or platform around it; there was no curb; might have been a platform; I am positive there was no curb around it; there might have been a casing under the pump around the pipe.

Q. 388. Have you any recollection of any such casing?

A. I have no recollection, but my impression is that there was.

A. 389. If you have any recollection of the pump used on the second driven well, describe it.

A. I can't describe any pump; there was a pump that answered the purpose of the well; that is the most I know about it.

Q. 390. Have you any recollection of its style or shape?

A. I couldn't describe the pump at all.

Q. 391. Question repeated.

A. I have no recollection, any more than it was a pump.

Q. 392. When did you see a driven well first after the one was put down west of the shop testified to?

A. I can't tell you.

Q. 393. What is your recollection as to the time?

A. I can't say as I have much recollection about it; my best recollection would be the one we put down in the shop; am not sure about it.

Q. 394. Do you know of your own knowledge that any one put down a well from seeing the one then west of the shop; and, if so, who put it down?

A. I don't know; I couldn't swear positive to any one.

Q. 395. Don't you know there was a summer when these driven wells came into public use in this place and that several of them were put down that season?

A. I know of a number of summers when those wells were put down, but I don't know of any season when many were put down in particular; it was when they — building.

3205 Q. 396. How long after you put the well down on the west side of your shop before they came into public use?

A. I don't know; after this was put down it might have been a year; might have been longer, but they came in very soon.

Q. 397. Please state some of the first wells that were put down after this that you refer to in your last answer.

A. I can't state any well.

Q. 398. Have you any present recollection of any well so referred to?

A. I have not.

Q. 399. Then why do you say that they came into public use within a year or two?

A. I mean to be understood that that was my best impression.

Q. 400. You say the first well you recollect of after the one put down west of your shop was the one in your shop; where was the second one that you now recollect of?

A. I can't tell you.

Q. 401. Have you any recollection on that subject?

A. I think after that wherever they were building they used these wells.

Q. 402. Question repeated.

A. I have no recollection about it.

Q. 403. What other driven wells, if any, have been put down on your premises or premises that you have been interested in?

A. There was a well put down on premises that I had — interested in; I can't tell the year, but think it was in 1867 or 1868.

Q. 404. Will you swear positively it was in one of those years?

A. No, sir; I wouldn't swear positive.

Q. 405. Who put that well down?

A. Can't tell you; think John West put it down; it was right
back of the drug store, on Main street, that I then occupied;
3206 those are the only wells put down on my property or property that I was interested in that I now recollect of.

Q. 406. Wer-n't you interested in the Chapin place when there was a driven well on it?

A. I don't know what you mean by the Chapin place.

Q 407. Didn't you have a driven well put down back of your shops where those little houses are?

A. Not that I recollect of.

Q. 408. Did you or your firm pay a royalty on that well put down back of your store? Answer directly, yes or no.

A. I was told by my partner that we did.

Q. 409. I ask you the same question as regards the well in the shop testified to.

A. I have no recollection of paying any royalty on that well, or any member of our firm.

Q. 410. Will you swear that you didn't pay L. L. Thayer a royalty on a driven well?

A. I have no recollection of paying any royalty to L. L. Thayer on any driven well; I did not.

By Mr. Andrews:

Q. 411. This tube well you have spoken of at the west end of the blacksmith shop you have each time, in speaking of it, — was a driven well; on what knowledge is that statement founded?

A. On the fact that it was a pipe put into the ground and a pump put onto it—what we called a driven well.

Q. 412. Had you ever previously seen a driven well?

A. I don't know that I ever had.

Q. 413. Then where did you get the term "driven well?"

A. I supposed the pipe was droven down or else it wouldn't been there.

3207 Q. 414. Then your entire evidence in regard to this well and its being a driven well is founded upon that supposition?

A. I didn't see the well put down; it is founded on that supposition.

Q. 415. What was the distance from this driven well at the west end of the blacksmith shop?

Question withdrawn.

Q. 416. What was the length of the blacksmith shop?

A. I think some forty feet; somewhere in the neighborhood of 40 feet.

Q. 417. And the distance between the two shops was what?

A. Somewhere in the neighborhood of between two or three rods; I wouldn't be positive.

Q. 418. In carrying water from this well to supply the engine, was it carried through or around the blacksmith shop?

A. I think it was generally carried round the blacksmith shop; I won't be certain; they could carry it through, or either way.

Q. 419. Was there anything to prevent the driving this pipe down into the ground in the bottom of the race, where it run under the shop which contained the engine?

A. There was no place in the shop that that pipe could be put down and a pump put on it without its being in *of* our lumber and doing our work.

Q. 420. Was there not a pump having a pipe which led down into the race, or into barrels settled into the edge of the race, which was used for filling the boiler by hand when starting?

3208 A. There was.

Q. 421. What was there to prevent the putting down of this driven well in that same place?

A. It could not be put right close to the engine; this pump was placed right on the side of the engine; the wall that the engine stood on was considerable wider than the engine, and then it would be right in the way of work on the floor.

Q. 422. When did you first hear this well that you have been talking about talked of as being the same as the present driven wells?

A. I can't tell you.

Q. 423. Give us an approximate time.

A. It might be one, two, or three years; I can't give any correct time when I first heard of it.

Q. 424. Was there not a cistern supplied with water from the race standing between Breck, Gates & Herd's shop and this driven well at the time that planing mill was burned?

A. I don't recollect; I can't recollect whether it was there then or not; there was one there either thereafter or before; I can't tell whether it was there or not.

Q. 425. Do you know whether or not there was a lead or other suction pipe attached to the pump upon this driven well and passing down inside the iron pipe you have mentioned?

A. I know there wasn't.

3209 Q. 426. Was this driven well put down after the race became dry, in 1858, for the purpose of supplying water to that boiler and engine?

A. I don't know whether the race was dry at that time, but I think it was. It was put down for *that* purpose of supplying the engine.

Q. 427. You have testified that when you first saw this well the pump was on it, and that——.

Question waived for the present.

Q. 428. Have you any present recollection of seeing the well before the pump was on it?

A. I have not.

Q. 429. You have testified that you hav-n't any present recollection of seeing the well before the pump was put on it, and also that you don't recollect when it was taken up, and that is your best recollection, that there was a casing around the pipe. Now, please state how you are able to swear positively that there was not a lead pipe inside the iron pipe leading from the pump to the well

A. Because if there had been I should have known it. I am — willing to swear that there was any lead pipe inside that iron pipe.

Q. 430. Question repeated.

A. The reason is because I think I saw the well—the pipe before it was on; still I can't say; I have no recollection. I know any other thing: There was no place where it could get water, except from the bottom of the well. There was no reservoir for the pipe to run into, and for that reason I know there was no pipe there.

3210 Q. 431. Do you know, of your own knowledge, that there wasn't any reservoir there?

A. No; I don't know as I do.

Q. 432. Have you any books kept by yourself, or any papers or memoranda made by you, or any books that belonged to the firm, as such, while you were a member of it, that will enable you to fix the date that the engine was repaired? Please answer directly.

A. No, there are not; I examined the books at your request to find out.

Mr. Buxton, after the close of your direct examination you stated that you desired to correct your testimony as to the time of the erection of the first Herd mill; you may now make such explanation.

A. The first mill was built in 1853.

The redirect examination closed.

Q. 1. How many years' mistake did you make?

A. It seems I didn't make any.

Q. 2. Did you examine any books for that purpose after giving that testimony?

A. No, sir.

Q. 3. Are you positive that that mill was erected in 1853?

A. I am very positive.

Q. 4. You say you are very positive that the building was erected in 1853; please state your reasons for making that answer.

A. I don't know as I can give any reasons; I had the impression that the mill was burnt 6 years from the time it was erected, but I may have got that impression from the fact that the second fire occurred 6 years from the first.

(Signed) C. C. BUXTON.

Subscribed and sworn to before me—

(S'g'd) E. M. BARTLETT,
Notary Public.

3211 And then JABEZ WARREN, being produced as a witness on part of the defendant, duly sworn, testified as follows:

Q. 1. What is your name, age, and place of residence?

A. Jabez B. Warren; age, 61, and residence, Attica, N. Y.

Q. 2. Have you ever resided in this village—Warsaw, N. Y.?

A. I have.

Q. 3. When did you first become a resident of Warsaw?

A. April 1st, 1860.

Q. 4. How long did you reside in Warsaw after April 1st, 1860?

A. Twenty years, lacking a few days.

Q. 5. What business were you engaged in from April 1st, 1860?

A. Employee of the Buffalo & New York City & Erie railroad; I was agent at the depot.

Q. 6. Are you acquainted with Chancy Buxton & T. H. Buxton? And, if so, state how long you have been acquainted with them.

A. I am; have been for 35 years.

Q. 7. What business, if any, were the Buxtons engaged in when you came to Warsaw, in 1860, if you know?

A. Wagon making—commonly called wagon making or business.

3212 Q. 8. Where was their place of business?

A. On Main St. south of Buffalo St., in this village—Warsaw.

Q. 9. Did you have any work done at their shop?

A. I did.

Q. 10. What was it?

A. I had a wagon repaired, seated, and painted—Democrat wagon.

Q. 11. When?

A. In the summer of 1860.

Q. 12. Was you at their shop at about the time those repairs were made?

A. I was.

Q. 13. Did you see any water pumped from any place while you was at their shop on that occasion?

A. I did.

Q. 14. Where on their premises was it?

A. In the rear or west of what they called their old wood shop.

Q. 15. Do you know where their blacksmith shop was then located?

A. The brick blacksmith shop occupied by them was in the rear of their old wood shop.

Q. 16. Describe the place where you saw this water pumped.

A. It was in the driveway or roadway; in a place where they let work down from the paint shop; in the west of that or in the rear of the old paint shop.

Q. 17. Where, in reference to the blacksmith shop, was it?

3213 A. My best impression is it was west of the blacksmith shop; a little west, not a great deal.

Q. 18. What first called your attention to this pumping up water?

A. From the peculiar construction of the pump, from whence it came.

Q. 19. What was there about the pump to attract your attention?

A. It was an iron-cistern pump on top of what I supposed to be an iron tube.

Q. 20. Describe, Col., the appearance of this tube.

A. It was a tube, an iron tube, 18 inches or 20 inches above the ground; diameter might have been two inches; it might not; I can't say; think it was.

Q. 21. In what direction did that tube go, perpendicular, obliquely, or how?

A. Perpendicularly in the ground.

Q. 22. Was there anything covering the ground there, or was the surface of the ground open and exposed?

A. Open and exposed.

Q. 23. Describe the appearance of the ground from which this tube projected.

A. Well, it was even and like the surrounding ground around this tube.

Q. 24. Was there any pit or excavation in the ground that you observed around this tube?

A. Not to my knowledge or recollection.

A recess was here taken until 1.30 p. m.

Q. 25. Was there any obstruction to prevent a fair view of the tube and the ground immediately surrounding it?

3214 A. No, sir.

Q. 26. Did you see anybody about this pump at the time you saw it there; if so, who?

A. To the best of my recollection, Hiram Adams and Chancy Buxton was there.

Q. 27. Did you see any water pumped there?

A. I did.

Q. 28. By whom?

A. Either Chancy Buxton or Hiram Adams; am not positive which was pumping.

Q. 29. Did you have any conversation with either of these parties in reference to this well?

A. I did.

Q. 30. Can you tell which one of them?

A. I think both.

Q. 31. Repeat the conversation you had there on that occasion about this well?

A. I couldn't repeat the words. I asked them what kind of a well they had there or means of getting water by way of engineering. Mr. Buxton replied it was a tube drove into the ground—pumped water from the bottom of the tube.

Q. 32. Had you ever seen any well similarly constructed before?

A. Had not.

Q. 33. You speak of having a wagon repaired there. Now, to what use had you previously put this wagon?

3215 A. At Linden, Genesee county, where I lived before I came to Warsaw; used it for what I termed an express wagon, for gathering butter and eggs.

Q. 34. Did you continue in the business of gathering butter and eggs after you came to Warsaw?

A. I did not.

Q. 35. To what use or uses did you put this wagon after coming to Warsaw?

A. After having — of it worked over I used it as a family wagon. I used it for my family wagon, riding about; it had two seats.

Q. 37. Was this change effected at the time you had it repaired?

A. Yes, sir; at the time of the repairs.

Q. 38. How many persons did your family consist of at that time?

A. My wife and two children, aside from hired help.

Q. 39. Can you tell about the time of year you saw this well there?

A. I can, within 3 months; it was some time in summer months of 1860.

Direct examination closed.

3216 Cross-examination conducted for complainants by S. B. BARTLETT:

X Q. 1. Have you been subpœnaed as a witness in this case?

A. I have been notified some six or eight weeks ago that I would be wanted as a witness in this case, and several times since then.

X Q. 2. My question was, Have you been subpœnaed as a witness in this case? Please answer directly, yes or no.

A. I have received no formal subpœna.

X Q. 3. Have you been paid anything for your services as a witness in this case?

A. No, sir.

X Q. 4. Did you volunteer your services as a witness?

A. No, sir.

X Q. 5. Were you ever sworn as a witness before?

A. Yes, sir.

X Q. 6. How many times?

A. Don't know; can't say.

X Q. 7. Can you tell something about the number of times—something near?

A. No, sir.

X Q. 8. Have you not been sworn a great many times as a witness?

A. As a man of my age, very few.

X Q. 9. In answer to my previous question you said you were unable to tell anything about the number of times. Now, are you now able to say a very few times?

3217 A. For a man of my age, in a comparative sense—I mean that for a man of my age a very few times—a comparative few times.

X Q. 10. Will you swear that you have not been sworn as a witness in twenty different cases?

A. No.

X Q. 11. You say that in 1860 you was in the employ of the railway company at this place; in what capacity did you act?

A. I came here as freight and ticket agent, and wood agent to a certain extent—purchasing wood.

X Q. 12. How long did you continue to act in that capacity?

A. Five years and possibly 6.

X Q. 13. Can you tell the month and year you ceased to act as agent?

A. I ceased to act as agent either on the first day of April or last day of March, either five or six years from April, 1860.

X Q. 14. Can you tell positively which it was—either 5 or 6 years after you commenced that you ceased to act as agent?

A. I could not, without referring to the books of the office. I will say positively five years and possibly six.

X Q. 15. Why did you cease to act as agent?

A. I resigned.

X Q. 16. Was you requested by Mr. Boles, the superintendent, or any other officer of the company, to resign?

A. To the best of my recollection, I was not.

X Q. 17. Will you swear positively you was not?

A. To the best of my recollection, I was not.

3218 X Q. 18. Did you understand my last question?

A. I do not know whether I did or not.

X Q. 19. Will you swear positively that you was not requested to resign by Mr. Bolles or some other officer of the company?

A. No; but I think I was not.

X Q. 20. Will you swear positively that Mr. Bolles did not inform you that he had received a great many complaints about your dishonest dealings at the depot?

A. He did not.

X Q. 21. What month of the year that you took this wagon to Mr. Buxton's shop to be repaired?

A. One of the summer months; I can't tell which.

X Q. 22. Did you yourself take the wagon there?

A. I think I did.

X Q. 23. Do you swear positively that you did?

A. I do, to my best recollection.

X Q. 24. What day of the week was it?

A. Can't say.

X Q. 25. Did any one go with you?

A. Can't say.

X Q. 26. Who did you first see when you got to the shop?

A. Couldn't say.

X Q. 27. Can you name any one that you saw on the occasion of your taking the wagon there?

A. Don't think I could; I can name one or two, but could not tell which.

X Q. 28. Had you ever been there previous to this occasion?

A. I think I had.

X Q. 29. Had you ever had work done at their shops previous to that time?

3219 A. Individually, I had not.

X Q. 30. Had you, in company with any one else?

A. No; I might & might not in company; couldn't say.

X Q. 31. Did you ever have work done there after that?

A. As an individual, I had not.

X Q. 32. Did you as an individual or anything else?

A. As company, I did.

X Q. 38. For how long after that and how frequently did you have work done there as company as you state?

A. I could not say.

X Q. 34. Did you not have work done at the Buxtons for several years after taking this wagon there?

A. I had a settlement with him a short time before I left the station, and after that I had no more work done there, to my knowledge. I had a little trouble in settling.

X Q. 35. Was this settlement for work you had done from the time of the taking the wagon there up to the time of the settlement?

A. To my best knowledge, the settlement I had was for company work done after I had my wagon there.

X Q. 36. Did you and your brother carry on a farm during the time you were with the railroad company?

A. We had a farm that we hired worked.

X Q. 37. Did you own horses and wagons?

A. We had a pair of horses and a double wagon.

3220 X Q. 38. At whose shop did you get your repairing done?

A. I couldn't say; my impression is that most repairing we had was done by Mr. Buxton, what we had to do; we did not have a great deal.

X Q. 39. When were you next at Buxton's shop after the occasion of taking this wagon there?

A. My *next* recollection is when I went after the wagon.

X Q. 40. How long was it after you took the wagon there?

A. The precise length of time I cannot tell.

X Q. 41. State, as near as you can, how long it was.

A. Well, I will say from 4 to 6 weeks; that is my best impression.

X Q. 42. Who went witk you on that occasion?

A. Was one of my hired men; it was either Lucius Hill or man by name of Parish; which one I couldn't say.

X Q. 43. Can you not tell positively which one it was?

A. I could not.

X Q. 44. How long did you remain at Buxton's shop on this occasion?

A. Couldn't say.

X Q. 45. Can't you tell something near the time?

A. Not very; I can't give you the length of time.

X Q. 46. Who was the first person you saw when you went there?

A. The first person I recollect of seeing was Chancy Buxton or Hiram Adams, at or near the iron well.

3221 X Q. 47. Did you go into the blacksmith shop?

A. Can't say.

X Q. 48. Did you take the wagon down from the paint shop before you went to the well?

A. It was taken before.

X Q. 49. Was Mr. Buxton and Mr. Adams there before the wagon was taken down from the paint shop?

A. *The* don't recollect of seeing them in paint shop when we took the wagon out.

X Q. 50. What were they doing when you first saw them?

A. One or the other was pumping water; the other was standing near there—near the iron well.

X Q. 51. Where were you at this time?

A. I was hitching onto the wagon or helping to hitch on the wagon.

X Q. 52. Where did the wagon stand when you hitched onto it?

A. It stood at the south side of the brick blacksmith shop, near the southwest corner, my best recollection, west of the roadway.

X Q. 53. What kind of a pump was upon this tube you have testified to?

A. Well, it was an iron pump; what I call a cistern pump.

X Q. 54. Was it a pitcher-spout pump?

A. Couldn't tell you; don't know as I know what a pitcher-spout pump is.

X Q. 55. How was it fastened on the tube?

A. Can't say; it was on top of the tube.

X Q. 56. Was it a painted pump?

A. Could not say; it was an iron pump.

X Q. 57. How far above the ground was the pump?

3222 A. My best recollection would be from 18 inches to two feet—that is, the bottom of the pump.

X Q. 58. How far above the ground was the top of the pump?

A. It might have been from 14 to 18 inches further than the bottom of the pump.

X Q. 59. What was the size of the tube?

A. I can't say, because I am not a mechanic.

X Q. 60. What is your best judgement as to the size of it?

A. An inch and a half to 2 inches, and might have been less.

X Q. 61. Did you pump any water from it?

A. Don't think I did.

X Q. 62. Did you see any pumped from it?

A. I did.

X Q. 63. Did you drink any of it?

A. Don't think I did.

X Q. 64. Where did you go to when you went from the shop?

A. I think I went home; had no other place to go.

X Q. 65. Who else did you have any conversation with besides Adams & Buxton on that day?

A. I can't say.

X Q. 66. When did you next see a well like the one you saw at Buxton's?

A. I have seen so many since I could not say.

X Q. 67. When was the next you recollect of seeing?

A. Might have been a year or two after that; I think a man by the named of John West was driving the well.

3223 X Q. 68. Where was that being drove?

A. Somewhere on South Main St., between the bridge and burying ground.

X Q. 69. What is your best recollection as to how long it was from the time you saw the first well to the time you saw West putting one down?

A. From two to three years.

X Q. 70. Did you stop at the place where West was putting this well down?

A. Think I halted somewhere on the roadside.

X Q. 71. Did you halt for the purpose of seeing him drive the well down?

A. I think I did.

X Q. 72. Did you talk with any one then in reference to it?

A. Can't think; if I did, don't recollect what I said.

X Q. 73. Who was there engaged in putting it down besides West, if any one?

A. Can't say.

X Q. 74. What year was that?

A. It must have been 1863 or 1864; two or three years after the summer of 1860; have seen a great many wells drove since then. I am only swearing in regard to my impressions about it; it might have been longer.

X Q. 75. Where were you going on this occasion?

A. Could not say.

X Q. 76. Were you alone?

A. Can't say.

X Q. 77. Were you ever on the Buxton premises after the time you got this wagon?

A. Yes.

X Q. 78. When next after the time you got the wagon?

A. Can't say.

3224 X Q. 79. State as near as you can.

A. The year I was pressing hay at Fargo's barn I was there quite often; I bought my sticks there.

X Q. 80. What year was that you was pressing hay?

A. I can't say without referring to my books; it was after I moved into the village.

X Q. 81. Had you been there between the time *and* you got the wagon and the time you were pressing hay?

A. Can't tell positively, but think I had.

X Q. 82. How many times?

A. Can't say.

X Q. 83. When was your attention of late first called to the subject of this well?

A. From one to two years ago.

X Q 84. Who called your attention to it?

A. Can't say positively.

X Q. 85. You say you were notified you would be wanted to testify here; who notified you?

A. C. T. Bartlett.

X Q. 86. Previous to his notifying you, had he told you what he wanted you to testify to?

A. No, sir.

X Q. 87. Had you told him what you would testify to?

A. Not in any form as *to* a witness; had talked with him on the subject of driven well.

X Q. 88. Have you talked with either of the Buxtons in regard to this well?

A. I have, with one of them.

3225 X Q. 89. Which one?

A. T. H. Buxton.

X Q. 90. When did you first talk with T. H. Buxton?

A. Since this examination commenced.

X Q. 91. How long ago?

A. From four to six weeks; maybe eight.

X Q. 92. Have you heard any portion of T. H. Buxton's testimony?

A. Yes; I heard him cross-examined to-day.

X Q. 93. Is to-day the first you have heard of T. H. Buxton's testimony?

A. I think it is, to notice it.

X Q. 94. Where were you when you talked with T. H. Buxton about the well?

A. In his place of business.

X Q. 95. Was it after he had been partially examined?

A. Yes; it was.

X Q. 96. Did he tell you what he had testified to?

A. No, sir.

X Q. 97. Have you had any talk with Mr. C. C. Buxton or Mr. Adams with reference to this well?

A. No; not about the well, but about the time they had been kept on the stand as witnesses.

X Q. 98. Do you recollect of there being meetings held here in this place for the purpose of forming an association to defend suits for the purpose of collecting royalty on the driven well?

A. I recollect hearing there was a meeting; I was not present.

3226 X Q. 99. Did any of the persons who had wells talk with you on the subject of payment of royalties?

A. Yes.

X Q. 100. Did they advise with you in reference to the payment of royalties?

A. No; not professionally.

X Q. 101. Did they in any other way than professionally?

A. Yes.

X Q. 102. Are you a professional man?

A. No; not legally.

X Q. 103. Have you been engaged for several years in practicing law in justice court in this place?

A. Yes.

X Q. 104. Have you practiced quite extensively here?

A. Yes; all I could get.

X Q. 105. For how many years have you been so engaged in trying suits here?

A. Ten to twelve years.

X Q. 106. How many suits do you recollect of trying since you have been here?

A. Can't say; several hundred.

X Q. 107. Will you swear that you have tried one hundred?

A. No.

X Q. 108. Will you swear to fifty?

A. Yes.

X Q. 109. Did you know before you were sworn here what you were to testify about?

A. Yes.

3227 X Q. 110. Of whom did you purchase this wagon you have testified to?

A. Charles Kindall, Jr.

X Q. 111. When?

A. 1857.

X Q. 112. What did you do with it?

A. Sold it to William Moore; can't tell time; 10 or 11 years ago.

X Q. 113. During the time you have been in Warsaw have you at different times assisted in furnishing evidence in actions in the county and supreme courts?

A. Only in cases I call my own.

X Q. 114. Do you mean cases in which *where* you were a party?

A. No, sir; cases that have been brought to me for me to select the att'y.

X Q. 115. Have you not assisted in furnishing evidence in cases of which you knew nothing about until they were commenced?

A. No.

X Q. 116. Will you swear to that positively?

A. No.

X Q. 117. How many wells did you see on the Buxton premises when you got the wagon?

A. One.

X Q. 118. In speaking of company work you had done at the Buxtons to what company do you refer?

A. I & V. O. Warren—myself and brother.

X Q. 119. Are you a man of considerable means?

A. No, sir.

3227½ X Q. 120. Are you a man of very limited means?

A. Yes, sir.

X Q. 121. Did you not have this wagon repaired several times after the time spoken of by you, when it was reseated and painted?

A. No; except setting the tire.

X Q. 122. At what place was the tire set?

A. I can't say.

X Q. 123. Was it not at Buxtons'?

A. Can't say.

X Q. 124. Have you no recollection as to where the tire was set?

A. Yes, sir; it was at this shop on Genesee St.; don't know who kept it.

X Q. 125. How many times did you have the tire set after it was repainted at Buxtons'?

A. Have no recollection of but once.

X Q. 126. Will you swear positively that you did not have repairs done on that wagon at Buxtons' shop after the time when it was painted and reseated?

A. No; but think not.

X Q. 127. During the 35 years of your acquaintance with Buxton how frequently were you at his shop?

A. Can't say; not often.

X Q. 128. Can't you state something near the number of times?

A. No.

Cross-examination here closed.

3228 Q. 1. You say that you sometimes try cases in justices' court; now, in trying cases, what success have you had among the regular attorneys; how often do you succeed?

A. About half and half.

Q. 2. You have tried cases against counsel who have cross-examined you, have you not?

A. I have.

Q. 3. How often have you succeeded?

A. About nip and tuck, I guess.

Q. 4. Have you any interest whatever in this suit?

A. None.

Q. 5. Do you know the parties?

A. Don't know them; never heard of them.

Q. 6. You spoke about C. T. Bartlett asking you to be a witness; did he tell you there was a commissioner to examine you, with others?

A. He did.

The examination of this witness here closed.

(Signed) JABEZ B. WARREN.

Subscribed and sworn before me—

(S'g'd) E. M. BARTLETT,
Notary Public.

(Here follows diagram marked p. 3229.)

3230 BUFFALO, *Dec.* 14, 1864.

Brass Foundry, Mr. H. E. Adams,

Bought — F. Calligan, manufacturer of portable steam engines, beer and cider pumps, leather, rollers, pinchers, dies, &c. All kinds of repairing promptly executed. Shop, corner Washington & Perry streets.

2.	To	6 hours' w'k on engine, @ 4	3	00
	"	cartage on engine		40
3.	"	day boring cylinder & pist*er*n, 48	6	00
5.	"	do. turning do. 48	6	00
"	"	15 lbs. iron pist*er*n rings, @ 8c.	1	20
6.	"	1 day turning on cylinder, @ 48	6	00
7.	"	4 hours planing on valve, @ 60c.	2	40
8.	"	5 do. boring & turning cross-head, 60c.	3	00
"	"	5 cross-head pattern by Rory, 6		75
	"	26 lbs. cross-head & slides, @ 8c.	2	08
	"	3 hours planing on cylinder, @ 60c.	1	80
	"	5 do. fitting on pist*er*n rings, &c.	2	50
9.	"	5 do. planing slides, @ 60c.	3	00
"	"	10 ft. ½-in. gas pipe, @ 31c.	3	10
"	"	1 ½-in. socket, @ 31c.		31
	"	4 hours' work on heater, @ 4	2	00
	"	8 do. fitting on engine, 4	4	00
10.	"	10 do. do. slides & cross-head, 4	5	00

3231–3236

10.	To 3 hours planing do. 60c.	1 80
"	" 1 bolt in frame, 35c.	35
"	" 2½ hs. of comp., Gebbs, @ 6	1 88
	" 4 bolts for slides, @ 30c.	1 20
12.	" 7 hours planing do., @ 60c.	4 20
"	" 1½ day fitting on engine, @ 40c.	7 50
13.	" 1 do. do. 40	5 00
"	" 4 hours planing cross-heads, 60c.	2 40
"	" 5 " work on governor, @ 4c.	2 50
14.	" 6 " rep'g on engine, @ 4c.	3 00
		82 37
	By cash paid on above	20 00
	To cash due	$60 37

F. CALLIGAN,
By J. W. NORRIS.

[U. S. revenue stamp, D. C., Dec. 14, 1864. 28.]

Comp. Ex. No. 1 Warsaw, N. Y., (s'g'd) E. W. Bartlett, notary public.

(Endorsed:) Driven well. Coligan bill for repairs on engine to H. E. Adams.

3237 Moses T. Tollman, being called and sworn on the part of the defendant and being duly sworn, testified as follows in answer to questions put to him by the counsel acting for the defendant:

Q. 1. State your name, age, residence, & occupation.

A. My name is Moses T. Tollman; my age is 67; I reside in Preble, Cortland Co., N. Y.; my occupation is farming & milling.

Q. 2. How long have you resided in Preble?

A. Since the 1st of March, 1851.

Q. 3. Did you know Wm. E. Tollman during his lifetime?

A. I did.

Q. 4. Was Wm. E. Tollman your brother?

A. He was.

Q. 5. In the year 1859 did Wm. E. Tollman own a farm adjoining or near a farm you then owned in the town of Preble?

A. He did; the farms were adjoining; the two houses in which we lived were about 16 rods apart.

3238 Q. 6. In the year 1859 do you know of your said brother making a driven well, so called, upon his said said farm which you have described?

A. I do.

Q. 7. Describe the tube or pipe that was used in the construction of the said well, if you have any knowledge thereof, and when you first saw the said pipe.

Ans. The pipe was made of inch & a quarter gas pipe; 3239 the bottom end of the pipe was battered up so as to nearly close the hole, and for 12 inches or a little over holes were drilled or punched in or through the sides of the pipe. There was a considerable many holes. The pipe was originally about 5 feet long. I first saw the pipe in the summer of 1859. I saw it before it was put in and after it was put in. It was in the possession of Wm. E. Tollman, my brother, at Preble, on his farm.

Q. 8. State how you remember that you first saw the aforesaid pipe in the summer of 1859, giving briefly your reasons therefor.

Ans. I know he, Wm. E. Tollman, put it down before he rented his farm, and I have it on my book that the next year I sold grain to the man to whom he rented his farm; his name was Klock; he came from Tully—Ezekiah Klock. I sold him this grain in 1860. In 1859 the Methodists had a camp-meeting on my farm. I have the date on my books, & the well was put down that summer 3240 previous to the camp-meeting. The camp-meeting was in September, I think. I have no other means of fixing the date.

Q. 9. State, if you know, whereabouts & in what place this well was put down by your brother.

Ans. It is hard to describe any particular place. It was in the fields, near the corner of 3 fields. He put it on there so — to have the water to all the fields. It was low ground and dry, and a very slight ravine or hollow.

Q. 10. Were you present or did you see this well constructed?

A. I was not there when it was put down.

Q. 11. Were you present during any of the time in which the said well was put down?

Ans. I was not there during the operation of putting it down.

Q. 12. How soon after the well had been put down did you see it?

3241 Ans. I can't give the exact time. It was within a few days. It was within less than a month.

Q. 13. Describe what you saw about the well, pipe, pump, and all other things you observed about it when you first saw it after its construction.

A. A well was dug 12 or 14 feet & stoned up; then this pipe was inserted in the ground, in the bottom of this dug well. The upper end of this pipe was about 18 inches above the bottom of the dug well; then there was a pump attached to the upper end of this pipe—a suction & force pump; then there was a lead pipe run from this force pump to a short distance above the surface of the earth. The pump was operated by a rod extending from a windmill over the well, extending down to the pump. This rod operated the piston or plunger & forced the water up through and out of the lead pipe at the surface.

3242 Q. 14. State the condition of the dug well in the bottom of which this pipe was inserted, as testified to by you.

Ans. It was left level & dry as need be. No water was visible except what was pumped up.

Q. 15. State whether or not the earth was against the sides of this pipe inserted in the bottom of the dug well or pit you have testified to.

A. It was.

Q. 16. How long was this well made by this pipe and pump used, as you have testified to, in use or operation?

Ans. About 3 years, & then the wind blowed the wings off of the windmill. How it was used after that I can't say, for my brother sold the farm a short time after that. He sold his farm in '64.

Q. 17. What was the water used for which was pumped up by this windmill?

A. Principally for watering stock.

3243 Q. 18. State whether or not this well continued from the time of its construction to the destruction of the windmill, as testified to by you, to furnish an abundant supply of water.

A. I could not say as it would furnish an abundant supply. It only run when the wind blew. When there was wind enough to run the mill there was a good supply of water.

Q. 19. Describe the vessel or recept*ical* into which the water obtained by this well was emptied or discharged.

A. In the first place there was made an excavation or basin about 10 feet in diameter & 12 or 14 inches deep, made of water lime—bottom & sides made of stone—& from that he had a pipe extending to a trough outside, so that this reservoir would fill the *d*rough, and when the cattle drank from the trough & lowered the water it would flow from the basin.

Q. 20. State, as near as you can, how many head of cattle
3244 obtained water supplied from this well.

A. I couldn't tell exactly. He had sometimes more and sometimes less. He used to have from 12 to 15 head; sometimes more.

Q. 21. Describe, as near as you can, the pump used in this well, giving its size, construction, and all other details which you remember.

Ans. The pump was small, probably about 2½ to 3 inches in diameter and 6 to 8 inches in ling-h. I think it was made of copper & brass. It was a suction & lift. The discharge pipe was on the top & the suction pipe on the bottom.

Q. 22. State whether or not this pump was attached or connected directly to the top of the pipe inserted in and projecting from the bottom of the well, as you have testified to.

A. It was.

3245 Q. 23. How far did the tube or pipe project down into the earth from the bottom of the dug well or pit described by you?

A. According to the length of the pipe, it was 3½ feet in the ground. The pipe was 5 feet long, & 18 inches of it was above the bottom of the dug well.

Q. 24. State whether or not your brother, Wm. E. Tallman, in any way attempted or tried to keep this well so made by him, as you have testified to, a secret among his neighbors or the people of Preble.

Ans. He did not.

3246 Q. 25. Could any one who desired view this well, so made by your brother, during the time while it was in operation?

A. There was nothing in the way.

Q. 26. State whether or not at the time when it was made and afterwards when in operation there was a good deal of talk in the neighborhood about the same, and as to whether or not it excited the curiosity of the people in that vicinity, so that many came to see it.

A. It was quite a novelty & quite a good many went to see it while in operation.

Q. 27. State whether or not if you know where the pipe or any part thereof used in the construction of said well is now.

A. I do. It is in this office now. I now hold a pipe in my hands.

3247 Q. 28. Is the pipe which you now hold in your hands a part of the pipe which was inserted in the bottom of said dug well or pit, as you have testified?

A. It is.

Q. 29. What has become of the other part of it?

A. I used it myself. I cut it off. A portion of it I cut off and made a coupling for a land roller. I used what was taken off of it myself. The part remaining is 20 inches long. It is perforated 10¼ inches from the bottom up.

Q. 30. State why you know the pipe you hold in your hand was the one used in the construction of the said well by your brother.

A. He, my brother, showed it to me before he put it down.

3248 Q. 31. Do you now identify the pipe you hold in your hand as the one shown to you by your brother, as you have testified, and used in the construction of said well?

Ans. I do; I identify it as the one.

Q. 32. Did you let Irving H. Palmer have the pipe which you hold in your hand in the winter of 1878 & 9 to have it photographed?

A. He asked me for it & I told him he could have it; I afterwards got it.

The pipe which the witness holds in his hands is here delivered to the notary to be kept by him during this examination.

Q. 23. What was the diameter of this dug or open well in which this pipe was inserted?

A. I couldn't tell the exact size; it was large enough to let a ladder down & to go up and down at will.

Q. 34. State, if you know, when the dug well, in the bottom of which this pipe was inserted, was dug.

A. My best knowledge — it was the year before—the year
3249 1858; I would not be positive; it might have been the spring of 1859; I think in 1858.

Q. 35. State whether or not you were in the habit of going down into the dug well or ever did go down into the dug well to see the operation of the pump attached to the top of the tube or pipe inserted in the bottom of said well, as testified to by you.

3250 Question repeated to witness.

Ans. I have been down in the well two or three times.

Q. 36. When did you first go down in said dug well, as testified to by you in in the last answer?

Ans. I can't tell when I first went down.

3251 Q. 37. State, as near as you can recollect, how long it was after the tube well in the bottom of the dug well was constructed before you went down into the said dug well.

A. It was a short time after; the number of days I can't tell. It was less than a month.

Q. 38. Whenever you saw this dug well was there any water visible in the bottom of it?

A. Not to my knowledge.

Q. 39. Do you know anything of the nature of the soil or earth at the bottom of the said dug well? If so, state what kind of soil it is.

A. It was gravelly.

Q. 40. State whether or not you are posative that this tube or pipe well described by you, constructed by your brother, Wm. E. Tallman, dec., was so constructed previous to the breaking out of the war, in 1861.

3252 A. I am.

Q. 41. When did your brother, Wm. E. Tallman, deceased, dispose of his farm adjoining you, as testified to by you?

A. In 1864. He gave possession that spring.

Q. 42. At the time you went down into this dug well, as testified to by you, was the earth in the bottom of said well surrounding the tube inserted therein close up to & in contact with the outside surface of said tube or pipe?

Ans. It was.

Q. 43. What was the diameter of the lead pipe used as a discharge pipe to said pump, as testified to by you?

A. It was what they usually call a half-inch pipe, inside measure; outside, ¾ of an inch.

The proceedings were here adjourned to 9.30 a. m., Feb. 6, 1880, by consent of parties.

3253 FEBRUARY 6, 1880—9.30 a. m.

Parties appeared pursuant to adjournment.

Examination of MOSES T. TALLMAN resumed:

Q. 44. When did you examine your account books as to the grain you sold Ezikiah Klock in 1860?

A. I think the first time my attention was called to it was about 4 years ago; that is the best of my recollection of it.

Direct examination closed.

At the close of the direct examination of the witness as above complainants' counsel state that on the hearing or trial of this

3254 action complainants will insist on excluding the whole of said testimony, for the reasons entered before the witness was sworn as above set forth, at folios —, and that he will now cross-examine only conditionally upon the admission of said evidence against their objection here raised and to be insisted on on the hearing.

Witness, being cross-examined by Mr. **Goodrich**, counsel for complainants, in answer to questions put to him, testified:

Cross-Q. 1. When and where did your brother, Wm. E. Tallman, died?

A. He died February 22, eighteen hundred and seventy-eight, at Syracuse, where he then resided, and had for a little over a year.

C. Q. 2. He had a family, had he?

A. Yes; a wife; he had no children.

C. Q. 3. What was his age at death?

A. He was about 64 years old.

C. Q. 4. When did he & family remove off of his farm in Preble, spoken of in your direct.

A. In the fall of 1864—in Sept. or Oct.

3255 C. Q. 5. How long had he resided upon that farm?

A. I could tell by reckoning up; between nine & ten years; if he had staid till spring it would have been 10 years.

C. Q. 6. How large was that farm of his?

A. I couldn't tell exactly; to the best of my knowledge it was 230 acres; it was not so large at first; it was 120 acres; after that he bought 80 acres more; that was three or four years after; I came onto my farm M'ch 1st, 1851; then in about two years he bought his farm; *then in about two years he bought his farm;* in the spring of 1854 he moved onto his farm and continued to live there until 1864.

C. Q. 7. Was his farm partly on the flat land on the usual level with the river there and partly on the hillside adjacent to the river, or was it all on the flat land?

A. It was all but a small portion of it on the flats.

C. Q. 8. About how much above the river was the surface of the flat land you speak of elevated?

3256 A. It would vary from 10 to 25 feet above the general level of the river.

C. Q. 9. Your farm was about the same size and character of land?

A. I had 200 acres, & mine was all on the flat.

C. Q. 10. How long have you lived on your farm?

A. Twenty-eight years last March 29—next March.

C. Q. 11. You have had a family during all this time, have you?

A. Yes, sir; a wife & 4 children.

C. Q. 12. How far are these 2 farms you speak of from Cortland village, in Cortland Co., N. Y.?

A. Between 9 & 10 miles; we always call it 10 miles.

C. Q. 13. Have you been in the habit of being frequently in the village of Cortland during your residence on your farm, & accustomed to do business there?

A. I have been to Cortland a quite a number of times; sometimes to court & sometimes to trade; have been there visiting.

C. Q. 14. State about the average number of times a year you came to Cortland.

3257 A. I don't think it would average over twice a year; sometimes not more than once a year, and sometimes six; I don't think during the 28 years I have been there over 60 times.

C. Q. 15. Was your brother Wm. in the habit of being in Cortland village while living on his farm less or more than yourself?

A. I couldn't tell whether he was there oftener than I was or not; for the first 3 years after he came onto the farm I was in Steuben Co. during the summers.

C. Q. 16. You were in the South in some one or more of the years mentioned building a plank road, were you not?

A. No; but I was in Steuben Co., in the State of New York, building plank roads during the 2 or 3 years of which I have already spoken.

C. Q. 17. You have spoken of Ezekiah Klock in your direct. How long have you known him & where does he now live?

A. I knew him about 5 or 6 years before he left this State; think it was 6 years; he moved to Virginia; he now lives in Maryland, as I am informed.

3258 C. Q. 18. Where did he live when you first became acquainted with him?

A. At Tully, Onondaga Co., N. Y. Tully adjoynes Preble on the north.

C. Q. 19. How long did you know him while he lived in Tully?

A. I think about one year.

C. Q. 20. Are you at this time able to state whether it was one or two years that you knew him in Tully? Please answer directly.

A. No; I couldn't say whether it was 1 or 2.

C. Q. 21. Are you prepared, Mr. Tallman, now to testify that Klock did not live in Tully, after you became acquainted with him, for more than 3 years? Please answer directly.

A. No.

C. Q. 22. Can you give the year of his removal out of the State so as to be certain that it was that year? If so, give it.

A. I can't give the exact year.

C. Q. 23. Give the year as nearly as you are able.

A. I couldn't tell; I have no memorandum. I could get at it
within 2 years if I was at home. I mean by that I bought a
3259 mill of him & his brother-in-law—no; I am mistaken; I
bought it of the man he sold to. His brother-in-law was
Andrewson Fransisco. Klock & his brother-in-law, Fransisco, built
the mill—a saw mill, it —. My son-in-law bought the mill of Augustus Haynes.

C. Q. 24. How far from your farm was this saw-mill spoken of?

A. The saw-mill was built on my farm. I gave them a deed of the land—an acre or two—for a mill-yard. This mill is run by water from the river.

C. Q. 25. State the year, as near as you are able; the year the mill was built.

3260 A. I can't fix the year here; as near — I can make it out it was in '66 or '67; it might not be as late as that.

C. Q. 26. Was it after or before Klock worked your brother Wm.'s farm, as you have stated?"

A. It was after.

C. Q. 27. Are you sure of that?

A. I am, for before there was no saw-mill there.

C. Q. 28. Where is Francesco?

A. He lives in Preble village.

C. Q. 29. Where is Augustus Haynes?

A. He is dead.

3261 C. Q. 30. Is this dug well on your brother's farm still in use?

A. I can't say; I have not been there in 10 years, I don't think.

C. Q. 31. How far was its location from your home, in rods, do you think?

A. A hundred & sixty rods, I should think; it might vary a little from that.

C. Q. 32. A windmill erected at the well would be visible from your house & farm, would it not?

A. It would be from a good share of the farm; whether it is in sight of the house or not I can't say; there are buildings in the range of the house & that.

C. Q. 33. Are you able to say whether or not there is any windmill standing & in use at the present time at the well in question?

A. There is not any there now.

C. Q. 34. For how many years past can you say there has been no windmill there?

A. I can't say exactly; I should say about 10 years; may be more.

3262 C. Q. 35. How long is it since the windmill has been in use there?

A. I don't think it has been running since 1863. It stood up there with 3 wings to it for a sort of monument for some years; whether it was taken down or blown down I can't say.

C. Q. 36. Are you able to state positively that the windmill there was not used for raising water from the well as late as in the year 1864? Please answer directly, yes or no.

A. It was not used as late as that.

C. Q. 37. Are you able to state and do you state the precise year and time of year when its use was discontinued?

A. I can't state the precise time nor the precise year.

C. Q. 39. Do you know what has become of the windmill?

A. I do not. I have not seen it since it was taken or blown down.

C. Q. 40. How far from you did Klock live while he was residing in Tully, from the time of your first acquaintance with him, as you have stated?

A. By a direct line it was 7 miles, but by the road it was 8½ miles.

3263 C. Q. 41. What was his business while living in Tully?
A. He was called a dairyman or farmer. He run a large dairy.

The proceedings here adjourned for dinner until 1.30 p. m., at the same place.

1.30 p. m.—Parties met pursuant to adjournment, & examination of MOSES T. TALLMAN proceeded:

C. Q. 42. You have produced here a section and lower part of the pipe which you say was inserted in the bottom of the dug well on your brother's farm you have spoken of. State, now, where you got it.

A. My brother brought it to my place, with other things, when he moved away.

C. Q. 43. What other things? State generally.

A. A quite a large quantity of old iron, harrows, bureau, wardrobe, and such like things—more than two wagon-loads of things—he didn't want to take to Syracuse.

C. Q. 44. When were these things left with you?

A. In the fall of '64, when he moved off of his farm.

C. Q. 45. Was that the time of his removal to Syracuse?
3264 Ans. Yes, sir; that is the 1st time he moved there. He
left Syracuse after that and went to Phelps & again returned to Syracuse, and from there he moved to Homer and took care of Mr. Barber, and stayed there 2 or 3 years; then he moved back to Syracuse & stayed there until*l* he died.

C. Q. 46. When was your attention first called to this section of pipe here produced as having any claimed significance with the driven well, so called, and its alleged invention or discovery by Colonel N. W. Green?

A. I think about 4 years ago.

C. Q. 47. Are you able to state the time more exactly?

A. I don't think I can.

C. Q. 48. Can you state now the year when your attention was so called to it, so as to be sure & pos*a*tive?

A. I can't say any more definitely than I have.

C. Q. 49. Can you state the very year, so as to name the year in which it occurred pos*a*tively & certainly? Please answer directly, yes or no.

A. No.

C. Q. 50. Are you able to state so as to be certain as to the
3265 time, within 2 years of the actual time; or, in other words,
can you name any 2 years in one or the other of which you will say pos*a*tively that your attention was first called to the significance of this section of pipe in the connection as stated? Please answer directly, yes or no.

A. Yes.

C. Q. 51. Name those years.

A. In 1875 or 1876.

C. Q. 52. In what season of the year?

A. It was in the latter part of the summer season.

C. Q. 53. By whom was your attention so called to it?

A. My brother Wm. came up there; another man came with him; I am trying to recollect who it was.

C. Q. 54. Where did it occur?

A. At my house.

C. Q. 55. State, to the best of your knowledge, who this "other man" was.

A. I can't remember who it was.

C. Q. 56. Was it previous to your having cut off a portion of the tube to be used in a land-roller, as you say you did?

A. It was not previous, but after I had cut the pipe off.

3266 C. Q. 57. How long after you had cut off the pipe for the land-roller was it that your attention was first called to the matter above stated?

A. About four years; I had cut off two pieces previous to that second time when I fixed the land-roller; I cut off 3 different pieces at 2 different times. I cut off the first two pieces two or 3 years before I cut off the last; I don't remember what use I put the first pieces too.

C. Q. 58. Did you or not, when your brother and the "other man" called, as you have stated, part with this section of the pipe here produced to them or either of them, or did you still retain it?

A. I still kept the pipe.

C. Q. 59. Who next called your attention to the claimed significence of this piece of pipe in its connection with its discovery or invention by Green of the driven well?

Ans. His name was Blanchard; he lives at Cortland.

3267 C. Q. 60. When, as near as you can state?

A. That was 3 years ago last fall, as near as I can remember; in cider-making time.

C. Q. 61. Did you exhibit to him this piece of pipe?

A. I did.

C. Q. 62. Who next called your attention to the significence of this pipe in the connection above stated?

A. This same man Blanchard came, the same fall, with another man with him by the name of Parsons.

C. Q. 63. Who next called your attention to it?

A. Mr. Suggett & Mr. Palmer; Mr. Suggett is the defendant's counsel; no, I am mistaken; Mr. R. H. Duell, of Cortland, called before they did; it was the same year that Blanchard called there in the fall, about 3 years ago; I showed the pipe to him, and I showed it also to Suggett & Palmer, and they, Suggett and Palmer, took it away with them and kept it four or six weeks; I then sent by Mr. Crowfoot and got the pipe back.

3268 C. Q. 64. Returning now to the dug well on your brother Wm.'s farm, spoken of, what do you know as to when & by whom it was put down? I mean the well, before the pipe mentioned was used in it.

A. It was put down by my brother Wm. in the year 1858 or 1859.

C. Q. 65. Are you able to state in which of these years the well was put down? (Meaning the dug well.)

A. My impression is it was in 1858.

C. Q. 66. Are you prepared to swear posatively it was not in 1859?

A. I am not.

C. Q. 67. Are you able to say in what season of the year it was put down?

A. It was put down in the summer season.

C. Q. 68. Was it used with the windmill for raising the water from the well, for stock or otherwise, for some period prior to the insercion at the bottom of the tube you have spoken of?

A. It was not.

C. Q. 69. Wasn't the windmill put up the same year this dug well was put down?

Ans. I can't say that it was.

3269 C. Q. 70. Will you testify that the windmill was not put up by your brother the same year and the same season of the year that the dug well was put down?

A. It was not the same season of the year.

C. Q. 71. Again I ask whether you will testify posatively that the well was not put down and the windmill erected both in the same year? Please answer directly, yes or no.

A. I will not be posative.

C. Q. 72. Do you know who your brother got the windmill of, or who made it or put it up for him?

A. I don't know of whom he got it; know it came from Mass.

C. Q. 73. Who assisted in putting it up, do you know?

A. Abram H. Van Denberg. He lives at Preble.

C. Q. 74. Who assisted in digging the dug well, if you know?

A. I could not tell.

C. Q. 75. Was it stoned up from bottom to top at the same time it was put down?

A. It was stoned up from bottom to top the first time I saw it.

3270 C. Q. 76. How long was that, do you know, after this dug well had been put down?

A. It was a short time; I couldn't tell how many days; it might have been a week or more, but not a great while.

C. Q. 78. Will you testify that it was to exceed 90 days?

A. It would not exceed 90 days or half that.

C. Q. 79. Who was there with you on that occasion, when you first saw the dug well?

A. I think I went with my brother Wm.; I don't remember anybody else.

C. Q. 80. Was there a pump in this dug well at that time?

A. There was.

C. Q. 81. What kind of a pump?

A. What they call a pitcher pump, cast-iron, ordinary kind & size.

C. Q. 82. What object had you in going over there at that time?

A. Nothing more than curiosity.

C. Q. 83. Was the windmill then erected there?

A. Not at that time.

C. Q. 84. Then the pump was operated by hand, was it?

A. Yes, sir.

3271 C. Q. 85. Was the pump above the surface, with a pipe running into the well?

A. It was; they had a lead pipe, attached to the pitcher pump, extending into the well, I think.

C. Q. 86. Don't you know where this pitcher pump had been got by your brother?

A. I do not; it was apparently a new pump.

C. Q. 87. Did you at this first time you went to this dug well go down into the well yourself?

A. I believe not.

C. Q. 88. How long was you there about the well at this time?

A. A short time.

C. Q. 89. Can you say whether or not at that time you looked or attempted to look down into the well to its bottom; and, if you did so, whether or not you were able to see there was any water at the bottom? Please answer as directly as possible.

A. I don't think I attempted to look into the well.

C. Q. 90. Are you able to fix by any means the precise year in which you made this your first visit to the dug well, so as to swear positively the year?

3272 A. I can't answer any more definite than I have; it was in 1858 or 1859. I can't tell which.

C. Q. 91. How long after your first visit to the dug well was it before you went there the second time?

A. I can't tell.

C. Q. 92. Was you there again after your first visit & before the windmill came and was erected?

A. Yes, sir; I was frequently there. I used to pass right along by there in the lots; how many times I can't tell.

C. Q. 93. To whom did your brother sell and convey his farm?

A. To Walter & John Kline, by contract for a deed.

C. Q. 94. How long did they hold it?

A. Two or 3 years; I think only two years.

C. Q. 95. Are you confident they held it for two years?

A. I am. I think it was not as much as three years; pretty positive it was only two.

3273 C. Q. 96. Your brother's contract was made with Kline at what time?

A. In the winter of 1863–'4. They took possession of the lands & mills in March or April, 1864. They occupied it 2 years, I think. They left there in the spring of 1866, I think; they sold to Elijah Stanton & assigning the articles to him, & on that my brother conveyed to Elijah Stanton.

By mutual consent of the parties the further taking of testimony herein is adjourned, to be resumed (on condition) that the time now limited to the deft. to close his proofs in this case shall be, and is hereby, extended five days beyond the present limitation. The same to be resumed at Homer, Cortland Co., N. Y., at the office of Franklin Prince, on Wednesday, the 11th day of February, 1880, at 10 a. m.

M. GOODRICH,
& L. HURBUT,
Counsel for Complainants.
JOHN W. SUGGETT,
Counsel for Def't.

EDWARD S. MORE,
Notary Public.

3274 Law Office of Franklin Pierce,
Homer, Cortland Co., N. Y.,
Feb. 11, 1880—10 o'clock a. m.

The defendant duly appeared by his counsel, John W. Suggett; the complainants do not appear, either in person or by counsel.

Witness, Moses T. Tallman, presents himself for cross-examination.

At 11.15 the Hon. Milo Goodrich appears, and the cross-examination of Moses T. Tallman is here resumed :

C. Q. 97. How many interviews have you had with Mr. R. H. Duell in respect to the significence of this section of pipe that you present here before the notary ?

A. I think he has spoken to me two or 3 different times ; the one when he came up there was the most important interview.

C. Q. 98. When was this second interview which you had with him on the subject ?

3275 A. I think he spoke about it on the cars—I was coming from Syracuse—this last November.

C. Q. 99. When was the third ?

A. It was last Thursday morning, in the Barber block, in Homer.

C. Q. 100. How many different interviews have you had on this same subject with Mr. Suggett, the counsel here, or with Mr. Irving H. Palmer ?

A. That I can't tell positively, how many.

C. Q. 101. Tell, as near as you can, how many.

A. Three or four times he has spoken of the pipe before the examination commenced.

C. Q. 102. Where was the 1st interview, & when ?

A. At my house, a year ago last winter, I think ; that was the first time I saw Mr. Suggett ; Mr. Palmer was with him.

C. Q. 103. When & where was the next with one or both of them ?

A. The next interview was Palmer came to see me at the mill ; it was the same day they both came there. That was the time I gave Palmer liberty to go & get it.

C. Q. 104. When the next with either or both of them ?

A. The next time I was at Cortland. I went into Palmer's
3276 office to get this same pipe. This was the same winter,
along towards spring; I did not get it at that time; I sent for
it afterwards & got the pipe.

C. Q. 105. When & where was your next interview with either or both of them?

A. I can't tell exactly where or when the next one was.

C. Q. 106. Tell according to the best of your recollection.

A. I can't fix the time or the place till he came to subpœna me; I think I met him once before (I mean Mr. Suggett).

C. Q. 107. When & to whom did you first exhibit this pipe here produced before the notary?

A. I can't tell, because it has been so long.

C. Q. 108. Had you ever exhibited it to any one prior to the time your brother came to see you about it, as you have already stated in your evidence; if so, to whom?

A. I couldn't tell; the question was not up as to it before that time.

3277 C. Q. 109. Have you any recollection of having called any
one's attention to it before your brother call- on you about it,
as you have stated?

A. I don't recollect of showing it to anybody before that.

C. Q. 110. You state that some one accompanied your brother when he called on you about it. Please bring to mind & state from your best recollection who that other person was.

A. I can't bring it to my mind now to recollect just who it was.

C. Q. 111. Was he a stranger to you; can you say?

A. I don't think he was a stranger.

C. Q. 112. Then you have some recollection of the man, haven't you?

A. I recollect there was a man with him; any further than that I can't tell.

C. Q. 113. Was he an old or young man?

A. I can't say definitely as to his age anything about it.

C. Q. 114. State from your best recollection whether he was an oldish or youngish man?

3278 A. I can't state.

C. Q. 115. Where did he reside, do you think?

A. I think he resided in Homer, but I won't be positive.

Proceedings here adjourned until 2 p. m., at the same place.

2 p. m.—Parties appeared pursuant to adjournment, and cross-examination resumed:

C. Q. 116. How long before or after the erection of the windmill spoken of did you first examine the well in question?

A. I was there before the windmill was put up once or twice; I was there a short time after it was put up; I went down into the dug well and examined the pump & repacked it.

3279 C. Q. 117. Do you mean to testify that you ever examined
the well before the windmill was erected?

A. I don't say that I ever did.

C. Q. 118. How long, now, after the windmill was erected was it that you examined the well by going down into it, as you say you did?

A. I couldn't say how long after it was; I didn't go down to examine the well; I went down to examine the pump.

C. Q. 119. "To examine the pump;" in what respect & for what reason?

A. It was to repack the pump.

C. Q. 120. By whose request did you do it?

A. I think my brother Wm. got me to go.

C. Q. 121. Did you then repack it?

A. I did.

C. Q. 122. Did anybody assist you in doing it; if so, who?

A. Wm. E. Tallman assisted me.

C. Q. 123. Now, what was the season & the year; are you able to state positively?

A. It was the fall of the year 1859.

C. Q. 124. Was you ever down in the dug well after that?

A. I think I was once after that; I don't think I ever went in but twice.

3280 C. Q. 125. When was this last time? Give the year & season, if you can.

A. It was the same fall.

C. Q. 126. Why did you, then, go down into it? I mean at this last time.

A. I think it was for the purpose of repacking this pump.

C. Q. 127. At whose request did you repack it at this time, and did any one assist you; &, if so, who?

A. If I had anybody request me it was my brother Wm. I can't say whether anybody assisted me or not.

C. Q. 128. Are you able to say & do you testify that you did repack the pump more than once? Answer directly.

A. I did.

C. Q. 129. Do you say the repacking at the 2d time was in the same year & the same fall that you repacked the 1st time?

A. I do say so.

C. Q. 130. Did you ever go down into the dug well on any other than the 2 occasions spoken of or for any other purpose than as you now have mentioned?

A. I think not.

3281 C. Q. 131. What kind of a pump was it that was then in use in the well?

A. The pump was made of cop-er & brass, as mentioned. It was a suction and force pump—a cylinder pump. It was from 2½ to 3 inches in diameter, with a piston running up & down through the center. It was 6 to 8 inches long.

C. Q. 132. Attached at the lower end to what?

A. The pump was attached to the upper end of this pipe that was in the ground—that is, the lower end of the barrel or cylindar of the pump was attached to the upper end of this pipe.

C. Q. 133. How was the pump attached at its upper end?

A. It was attached by a rod from the windmill down to the piston of the pump. It was one rod, no joint. The diameter of this rod was about $\frac{1}{2}$ inch or $\frac{3}{8}$ inch. The rod was some 25 feet or more from the windmill down to the pump.

C. Q. 134. How were the wings of the windmill arranged? Did they turn horizontally or perpendicularly?

3282 A. Perpendicularly on a horizontal shaft.

C. Q. 135. What was the diameter of the wings from outside to outside?

A. I never measured them, but to the best of my judgment they were about 4 feet. There were 4 wings; they were of iron.

C. Q. 136. How near to the ground were the lower ends of these wings?

A. From 16 to 18 feet.

C. Q. 137. What supported these wings & the shaft to which they were attached?

A. A frame built up to support the mill.

C. Q. 138. Describe that frame, its spread at the bottom & at the top.

A. It was slanting. At the base it was about 18 feet square. There were 4 posts and they run up to about 2 feet square at the top. It was girted all around and braced. There were 2 or 3 rows of girts around it.

C. Q. 139. Did the posts of that frame enter the ground, stand upon its surface, or upon what did they stand?

A. I think they stood upon 2 sills resting on the ground
3283 or on stones. They were morticed into those sills.

C. Q. 140. Then, as I understand, there was no connection between the frame & the ground, but it was held in position simply by its own weight?

A. I couldn't say as to that whether it was or not. I never observed that there was any connection between the frame & the ground.

C. Q. 141. Had the pump any other attachments than what you have already described?

A. The pump was attached to a plank or timber running down side of the pipe, & the pump was fastened to it by 4 bolts or screws. This plank was fastened to the frame at the top.

C. Q. 142. What has become of the pump you speak of that was used within the well?

A. I don't know.

C. Q. 143. What has become of the iron rod that extended from the windmill down to & that operated the pump?

A. I don't know.

C. Q. 144. What has become of the lead pipe used, as you
3284 say, as a discharge pipe to the pump?

A. I don't know.

C. Q. 145. Have you seen either of them since the use of the well has been discontinued?

A. I don't think I have.

C. Q. 146. Where did your brother obtain the pump used within the well?

A. From Mass. It came with the windmill. All came together from one man. He got the information of it from an advertisement in the paper.

C. Q. 147. Where did he get the rod?

A. I couldn't tell.

C. Q. 148. Or the lead pipe?

A. I couldn't tell where these came from.

C. Q. 149. You have said that when your brother sold out & went away in 1864 he left a couple of wagon loads or so of stuff that he didn't care to remove with you on your premises, including the pipe, a section of which is here produced. Now, please state whereabouts on your premises these articles were placed & kept.

3285 A. A portion of it was put into the house, the furniture part. Plows & harrows & old iron & a lot of stuff he left in the barn and wagon house.

C. Q. 150. Was there other old iron left with you besides the pipe in question?

A. There was quite a quantity of it.

C. Q. 151. About how much in weight, would you think?

A. I couldn't tell exactly. There was more than 500 lbs. I should think about 1,000 lbs., consisting of old iron that he didn't think was worth taking to Syracuse.

C. Q. 152. Returning to this windmill spoken of, was that the first one erected in the val-ey from Homer to Apulia, to your knowledge?

A. It was the first windmill put up for practical purposes in this valley that I ever saw.

C. Q. 153. And was is regarded as a novelty when it was erected by the people around about it?

A. It was, somewhat.

C. Q. 154. What has become of the pitcher pump that was first used in the dug well before the windmill came?

A. I don't know what has become of it.

3286 C. Q. 155. Are you able to state accurately how long the pitcher pump had been in use in the well before the windmill came?

A. I am not.

C. Q. 156. Are you able to state accurately how long the pitcher pump was in use in the well after the windmill came?

A. I don't know that it was used at all after the windmill came for certain; I didn't see it used.

C. Q. 157. Do you testify that the pitcher pump was not used in that well for raising water from it for a period of time after the windmill was erected?

A. I don't testify to any such thing, for I don't know.

C. Q. 158. Do you know the fact that after the dug well was first put down that it was sunk deeper by digging & restoning the same?

A. I do not.

C. Q. 159. Have you any knowledge or recollection that such was the fact?

A. I never saw it done.

C. Q. 160. Question repeated.

A. I don't know that I have.

3287 C. Q. 161. Are you now prepared to testify that such was not the fact?

A. I am not; I don't know anything about it.

C. Q. 162. How long did Mr. Klock work the farm of your brother, Wm. E. Tallman?

A. From the spring of 1860 to the spring of 1864.

C. Q. 163. You have spoken of an entry in your account book against Klock for wheat sold him. Please produce that entry.

Witness does so, and book is produced and left with the notary for examination by complainants' counsel & witnesses.

C. Q. 164. Have you any other entry of this item in any other book?

A. Not to my knowledge; I know I hav-n't.

C. Q. 165. The book you produce is kept in ledger form; is it?

A. No; it is not.

3288 C. Q. 166. Do you mean that the charges upon it follow each other to different persons day by day as the transactions, occurred or is each man's account kept by itself, including charges against each at different dates?

A. I mean that the charges are made as they occur on the said book under the individual's name there entered; that is the manner I have kept the book.

C. Q. 167. Each person's acc't then on the book appears by itself, with charges at different dates, does it?

A. Yes; with charges under each person's name.

C. Q. 168. You sold wheat to Mr. Klock how many times?

A. Only once.

C. Q. 169. And that is the sale that is entered on your book you show here of 8 bushels & 57 lbs., at 10 shillings a bushels, July 23d, 1860?

A. Yes, sir; it is.

C. Q. 170. Are you sure that is the only sale of wheat that you ever made to him?

A. It is the only one that I have any knowledge of.

3289 C. Q. 171. The book you refer to & now produce is paged in ink from page 1 to page 165, is it?

A. Yes, sir; that is the old paging that was used in the store; it was there used as a ledger.

C. Q. 172. When did you ceace to keep it as a ledger in the store and commence to keep it as a book of charges against your customers, keeping each person's acc't by itself?

A. I can't tell exactly when I ceased keeping it as a ledger; I can tell within a year or two; it was previous to 1840; I commenced to use it for a book where each person's acc't was kept by itself directly after I came onto the farm, in 1851.

C. Q. 173. Does the book show spaces between different person's acc'ts unoccupied by writing on different pages?

A. Yes, sir; there are spaces along between the acc'ts & there are several persons' acc'ts on the same page.

3290 C. Q. 174. And are these pages in the course of the accounts occupied by scribbling or unimportant writing by children or others that do not form any regular accounts?

A. There is a part by children & a part by myself; I used it for figuring paper, a part of it, for the purpose of making computations & drafting a building; the drafting is in the back part of the book; the figuring is not all of it in the back part of the book; it occurs in vacant places through the book.

C. Q. 175. Is this entry of the wheat sold to E. Klock entered in pencil & not in ink?

A. It is done with a lead pencil.

C. Q. 176. A large portion of the entries in the book are made by pencils, are they?

A. They are pretty nearly all since 1851.

C. Q. 177. What, Mr. Tallman, is the last previous entry in pencil to that charging the wheat in question to Klock appearing

3291 in the book—to whom and at what date?

A. Feb., 1860, to "France Dix," 43 pounds "B flour" (carried out 95 cts.), and one lb. butter at 20 cts. to the same person, and credit by two days' threshing (carried out $1.25); also the word "wood" is written, but no carrying out; I don't know what it is for.

By mutual consent the further examination was here adjourned to Friday morning, Feb. 13, 1880, at 9 a. m., to the office of J. W. Suggett, in the village of Cortland, Cortland Co., N. Y.

EDWARD S. MORE,
Notary Public.

LAW OFFICE OF JOHN W. SUGGETT,
CORTLAND, CORTLAND CO., N. Y.,
FRIDAY MORNING, *Feb.* 13, 1880.

Parties appeared pursuant to adjournment & cross-examination of MOSES T. TALLMAN resumed.

3292 C. Q. 178. Mr. Tallman, what have been your habits for the last 20 years in your business of being abroad generally among the people of your town, the town of Preble, so as to have become during that period generally well acquainted with them? State whether that has been so or not for the last 20 years.

A. I am pretty well acquainted & have been during the last 20 years with the people of Preble.

C. Q. 180. And have you been & has your business called you to associate freely with the people of that town for the period mentioned?

A. I have been for the most part of the time, & particularly for the last 17 years, I have been in the milling, cheese, factory business & farming. I was away a portion of the time previous to 1857 in Steuben Co., as I have already stated.

3293 C. Q. 181. During this period of 20 years has there been a railroad connection between Preble and Cortland village, N. Y., running daily trains?

A. There has been, excepting Sundays & times when trains were blockaded by snow.

C. Q. 182. Cortland village is the Co. seat of your county, is it?

A. It is.

C. Q. 183. You have an ordinarily retentive memory, so far as you know, have you not?

A. I conclude so; I think I have.

C. Q. 184. When, according to your recollection, did the alleged discovery or invention of the so-called driven well here, in or near Cortland village, first obtain public notoriety here in the county? State the year according to your best recollection.

3294 A. I can't state the year definitely; it was the time Suggett & Green were disputing about the patent that I first knew that there was any public notoriety. I can't state that it obtained public notoriety in the Co., but it did in Cortland village.

C. Q. 185. James Suggett & Green had, as you understood, a contest here as to which of them was the discoverer or inventor, did they?

3295 A. What I know about that or all I knew about that I read in the newspapers *about*—from the Homer or Syracuse papers; I don't say from which. I didn't take the Cortland village paper.

C. Q. 186. Homer is a village nearer to Preble and on the railroad than Cortland, is it not?

A. Homer is nearer Preble than Cortland is.

C. Q. 187. In what year was it that you read from the newspapers about this contest between Suggett & Green as to the alleged discover- or invention of the driven wells? State the year as near as you are able.

A. I can't state the year.

3296 C. Q. 188. How many years ago was it, would you think?

A. I can't tell how many years ago it was.

C. Q. 189. Was it as many as 15 years ago, do you think?

A. I can't say as it was; it was a new newspaper report I read.

C. Q. 190. Can you say it was not as far back as 15 years ago?

A. I can't say.

C. Q. 191. According to what you then read was Byron Mudge, of Cortland village, mixed with Suggett & Green in the contest here as a claimant of the patent for the driven well?

A. From the article which I read I don't think he was. I don't think his name was mentioned in that article. I don't say he wasn't.

C. Q. 192. Didn't you learn about that time, Mr. Tallman,
3297 either from the papers or from conversing with your neighbors or townsmen or from others within Cortland county, that Mudge was a claimant in the contest spoken of as the alleged discovery of the driven well?

A. I can't say that I did.

C. Q. 193. Can you say it did not?

A. I will not say whether I did or did not.

C. Q. 194. Was the matter of the driven well alleged to
3298 have been discovered here in or near Cortland village considerably talked about in the county and in Preble at that period?

A. I can't say that it was talked about through the county. I heard it mentioned in Preble, I think. I will not be positive.

C. Q. 195. How frequently at that period did you hear that subject mentioned in Preble, can you say?

A. I can't say.

C. Q. 196. Returning now to the interviews you had with Mr. Blanchard when he came to your premises the 1st time and the second time with Mr. Parsons, as you have testified, state now whether the gentleman now sitting near you, Mr. Jesse M. Blanchard, of Cortland village, is the Mr. Blanchard to whom you have in your testimony referred.

3299 A. To the best of my recollection, he is.

C. Q. 197. At the time Parsons was there with him did Mr. Blanchard say to you, in substance, that the man that came with him desired to see this section of pipe you have here produced before the notary?

A. He did.

C. Q. 198. Did you then enquire of Mr. Blanchard whether the man with him who desired to see the pipe was in the interest of the driven-well owners or users, or in substance that?

A. I did.

C. Q. 199. Did Mr. Blanchard then reply that he was not in their interests, and did you respond that the man then must be on the side of the patentees of the driven well, or in substance that,
3300 and that if he was on the side of the patentees of the driven well you would not allow him to see this section of pipe referred to?

A. I enquired of Mr. Blanchard whether he was a "green man" or not; Mr. Blanchard hesitated & didn't reply at first; then I said to Mr. Blanchard, You can say yes or no; &, after hestitating, he said he was. I then told him he couldn't see the pipe.

C. Q. 200. Who did you mean by the "green men?"

A. The patentees of the driven well or those that claim to be.

C. Q. 201. Did you state to Mr. Blanchard, at either of the two interviews he had with you that you have testified to, that Mr. Porter, of Homer, had said to you that this section of pipe you could make of great value to yourself, stating the amount at $50,000.00 or some such sum? Please answer directly.

3301 A. I never stated to anybody that it was worth to me any particular sum, but Mr. Porter, of Homer, when my brother showed it to him, said it was worth $100,000.00 to the different owners of driven wells. I have repeated it to a good many. I may have repeated it to Mr. Blanchard.

C. Q. 202. When & where was it that Mr. Porter made this statement?

A. Some 4 years ago; in Homer village, in front of his office, in the street.

C. Q. 203. What season of the year?

A. It was summer or fall.

C. Q. 204. Was this Mr. Porter the man that came with your brother Wm. about 4 years ago, when, as you have testified, 3302 your attention was first called to the significance of this section of pipe here produced in connection with driven wells?

A. I think he was not the man; am most positive of it.

C. Q. 205. Do you mean to testify positively that Porter was not the man that was with your brother at that time?

A. I say positively that he wasn't the man; I am quite confident he was not.

C. Q. 206. Mr. Porter is a lawyer in Homer, is he not?

A. He is.

C. Q. 207. How long have you known him?

A. About since 1856, and have been well acquainted with him.

C. Q. 208. Did you know Colonel N. W. Green?

A. I did not.

C. Q. 209. Did you know Mr. James Suggett?

A. No, sir.

C. Q. 210. Mr. Byron Mudge?

A. I know two Mudges, but don't know their given names.

C. Q. 211. After you learned about the contest here in Cort- 3303 land village between, as you say, Green & Suggett, did you learn there was afterwards a long time spent in taking testimony here in Cortland village relating to this alleged discovery of the driven well?

A. I did not; I never heard that they had taken any testimony here before until yesterday.

C. Q. 212. Do you know, from your recollection, who worked for your brother Wm. the summer the dug well was put down?

A. I can't say positively.

C. Q. 213. Give us your best recollection, if you have any.

A. E. C. Auldrich was one, I know; he now lives at Ithaca; I can't say positively any others.

C. Q. 214. Do you know who made these holes in the section of pipe here produced?

3304 A. I do not for certain. I don't know which of two blacksmith- that I think did it. Those two blacksmith- were John R. Earl, of Preble village, & George Way; he worked in a shop belonging to Wm. near his mills. I don't know that either of them made the holes

Proceedings here adjourned to 1.30 p. m., for dinner, at the same place.

1.30 p. m.—Parties met pursuant to adjournment & cross-examination of MOSES T. TALLMAN resumed.

C. Q. 215. Do you testify that you had seen the pipe, of which the section here produced is a part, before it was in use in the dug well?

A. I do.

C. Q. 216. When & where did you see it?

A. In the summer of 1859. My brother, Wm. E. Talleman, had it in his hands after he had got it made as it is now at his house or at the well or on the premises there.

3305 C. Q. 217. Are you able to give the year and do you give it from recollection purely, or do you state it from some supposed me-randa to which you refer for fixing the year?

A. I fix the exact year from memorandum & from recollection, too, in another instance.

C. Q. 218. What do you mean by "another instance?"

A. That was—I know it was done before the Methodist camp-meeting was held in my woods in 1859, in September.

C. Q. 219. You fix the date of the camp-meeting, do you, from recollection solely?

A. I do not.

C. Q. 220. How else do you fix the date of the camp-meeting?

A. From the fact that two men *that* worked for me in 1859 by the name of Harmon Carr & John Bogan. I have their names on my books at that date. They drew lumber & straw for the use of the camp grounds.

3306 C. Q. 221. Where are they now?

A. Carr, I understood, was killed in the army, and the last I heard of Bogan was 4 or 5 years ago; he lived at Jamesville, Onondaga county, N. Y.

C. Q. 222. Did they work for you in different years or only in one year?

A. I don't remember of their ever working but one year steady—that is, by the season; I hired them for 7 or 8 months.

C. Q. 223. Do you testify positively that they did work for you in other years after the one year to which you have just referred?

A. I don't testify positively; they may have worked for a few days, but not for any season.

C. Q. 224. Are you able to recollect now so as to say exactly how long they worked for you in years subsequently to the year 1859?

A. I can't say positively or not whether they did or did not 3307 work for me after that year; if they did work it was only a very little, but I can't tell positively how long.

C. Q. 225. Did these persons live near you there in Preble?

A. They did when they worked for me.

C. Q. 226. When did they leave Preble? State as to each.

A. Carr went into the army; whether in 1862 or '63 I can't state; Bogan went from Preble to Truxton; it was after Carr went into the army & after the war.

C. Q. 227. The other memoranda by which you fix the date of 1859 as the year when this well was put down, as you have testified, are entries in your account-book here produced, are they not?

A. It is.

C. Q. 228. Independently of those entries, are you able to state from recollection purely what the year was when the well was put down, as you say? Please answer directly.

3308 A. I couldn't fix it definitely if it wa'n't for that.

C. Q. 229. Did you see the pump which you say was attached to this pipe that was inserted in the ground at the bottom of the well while it was being attached to that pipe?

A. I did not see it put together.

C. Q. 230. Do you know where you was while the pump was being attached to the pipe?

A. I can't say positively just where I was at that very time.

C. Q. 231. Have you any recollection whatever where you was a that time?

A. Not definitely.

C. Q. 232. Have you any recollection, definite or indefinite?

A. I have not as to where I was at that time.

C. Q. 233. Do you know who were the person or persons who put the pipe into the well and attached the pump thereto?

A. No, sir.

3309 C. Q. 234. Do you know exactly, so as to describe how the pump was attached to that pipe?

A. I cannot say exactly how it was attached.

C. Q. 235. When this pipe was brought to you & left with the other old iron by your brother did you take any special notice of it until your brother called and brought your attention to it, as you say he did, about 4 years ago?

A. Not particularly.

C. Q. 236. Are the pieces that you cut from it still in use so that you can here produce them?

A. They are not. I don't know where they are now.

C. Q. 237. How long is it since you have seen those pieces or either of them?

A. I don't know as I have seen them since I used them, some 7 or 8 years ago or longer.

3310 C. Q. 238. Thes- pieces had disappeared, had they, before your attention was called to the significence of this remaining section of that pipe here produced?

A. They had.

C. Q. 239. How many driven wells have you got on your farm now?

A. I have got 2 now; I have had 3 & took one up; there has been 3 driven, & only 2 in use.

C. Q. 240. Who drove or assisted in driving each of them?

A. Dunham; I don't know his given name; he lived in Homer the last I knew.

C. Q. 241. You got him to put down each of them, did you?

A. No; only the two first.

3311 C. Q. 242. When did you get him to put down the 2 first?

Witness: "Am I bound to answer such questions?"

3312 A. I have no memorandum to fix the exact date.

C. Q. 243½. State the date or dates, as near as you are able from recollection.

A. My best recollection as to the first one would be in 1861, '62, or '63; I have no memorandum.

C. Q. 244. May your first driven well have been put down in 1860 or 1861, 1862 or in 1863, so far as you now remember? Please answer directly.

A. It may have been in either of those years, so far as I now remember; I have no memoranda of it; I think it was in one or the other of those years, but in which I can't state.

C. Q. 245. State whether you applied to Mr. Dunham to put that first driven well down for you, and who furnished the material, all but the pump.

A. I applied to him to put down the well; I think he furnished pipe & pumps.

3313 C. Q. 246. How much did you pay him for putting down this well & then furnishing the materials?

A. I think it was $11.00; that is the best of my recollection; it was a shallow well, in the basement of my barn; there was an excavation of earth for the basement.

C. Q. 247. In what season of the year was it that this your first driven well by Dunham was put down?

A. Abo- the first of haying.

C. Q. 248. How long was he at putting down that driven well for you?

A. It was less than a day; he wa'n't a day, I don't think.

C. Q. 249. Did he have any assistance in the work; if so, who?

A. I think one of my boys assisted some; I took no part in the work; he did it for so much a foot.

C. Q. 250. Was this Dunham at that time engaged in putting down driven wells in the vicinity, as you then understood?

3314 A. I understood he was.

C. Q. 251. Did you see enough of the way he, Dunham, put down this driven well so as to be able to describe how he did?

3315 Question repeated to witness.

A. I did see enough.

C. Q. 251½. Please describe how he did it.

A. He drove a pointed rod into the ground or earth. He drew out this rod and drove a gas pipe with a perforated section in the hole, and then attached a pump at the top—a common pitcher pump. I think he drove it 11 feet. The cellar or basement excavation was about 7 feet. The pipe driven was also pointed. The pipe was inch & a quarter gas pipe. I used that well 10 years.
3316 The water got bad from being in the cow-barn, and I took it up and drove it in the milk-room. A man by the name of Butler drove it for me the second time, using a part of the same materials, by the same process. He had to use a longer pipe to finish the well in the milk-room. The pipe was about 19 feet long, with an elevation of 5 or 6 feet above the ground.

C. Q. 252. How long after the first well put down by Dunham was it before the 2d one was put down for you by him?

A. I should think some 7 or 8 years. I have no memorandum of it.

C. Q. 253. Was that put down by the same process as the first, & did you pay him for putting it down?

A. It was put down by the same process, & I paid him for it.

C. Q. 254. To what depth did he drive the well to get water?

A. In the first place I dug down 4 feet, and then he drove
3317 down a rod & put in a pipe. The pipe is about 18 feet long.
I attached a suction & force pump to that. I put the pump low down and made the excavation to prevent freezing. The working part of the pump was above the surface. The valves and a portion of the pump barrel are about 3 feet below the surface. We use this well in the summer time to water the garden. It was put down for that purpose. I furnished all the materials & paid Dunham $5.00 for doing the work.

C. Q. 255. Now, Mr. Tallman, I call your attention to the entry of the wheat sold to E. Klock, appearing on page 114 of your account book, of which you have already spoken as appearing under the date of July 23, 1860. I ask you to take the book and say whether that entry runs across the entire page of the book.

3318 Witness takes the book and answers:

A. Very nearly across the entire width of the page.

C. Q. 256. The book is made, is it, with lines dividing each page of it for credit side on the right and debit side on the left, the debit side occupying the left half and the credit side the right half of each page? Please answer directly, yes or no.

A. It is ruled so. It is ruled in ledger form.

C. Q. 257. Does this entry run throug- & occupy both the debit & the credit side of the page?

A. Very nearly.

C. Q. 258. Is it separated from the preceding entries by a pencil mark drawn across the page?

A. There is a pencil mark drawn across the page between the last entry above and Klock's name in this entry. By whom this mark was made I don't know.

C. Q. 259. Do you say you did not make it?

A. I don't think I did.

3319 C. Q. 260. Will you testify positively that you did not?

A. I can't say positively; don't know whether I made it or not. I think it was made by one of my grandchildren.

C. Q. 261. Is there some unoccupied space, of a half inch or so, between this entry in question and the last preceding entry above on the page?

A. There is. There are two on occupied ruled lines across the page, though the upper part of some — the letters in Klock's name crosses the lower line, save the pencil mark across, which I have spoken of.

C. Q. 262. Is there a still larger unoccupied space between this entry in question and the next entry below on the page?

A. There is, consisting of 3 unoccupied intervening ruled lines, or nearly so.

C. Q. 263. Is the book uniformly kept as the accounts therein appearing show—by debit and credit—the debit appearing on

3320 the left and the credit on the right, each occupying its appropriate half of the page in all the accounts, save this entry against Klock? Answer directly, yes or no.

A. No; there are other entries that extend clear across the page.

C. Q. 264. Turn to any such that they may be noted.

A. Witness turns to page marked by notary "E. S. M.", and finds an entry running clear across; also account of Wm. E. Tallman running clear across the page for 2 pages; also Geo. W. Gowan, entry running clear across the page and other pages, marked by notary "E. S. M."

C. Q. 265. Is the entry of the charge of the wheat against Klock you have spoken of marked as settled in anyway on the book?

A. I don't know as it is—any more than a pencil mark is drawn over it horazontally from one side of *of* the page to the other.

C. Q. 266. Who drew this pencil mark that you now speak of? Did you do it?

3321 A. I cannot say positively whether I did it or not.

C. Q. 267. Have you any recollection of doing it?

A. I don't recollect whether I did it or not.

C. Q. 268. Is it or not a mark of settlement? Answer directly, yes or no.

A. Yes; if I made it.

C. Q. 269. Is there anywhere in the book a credit to Klock that balances this account? If so, turn to that credit & show it, if you can.

A. I can't say as there is.

C. Q. 270. I now hand to you, Mr. Tallman, a statement of Klock's account of wheat sold under the date of March 15, 1864, amounting to $70.69. with entries of credit sufficient to balance, except $4.41, and ask you to say whether this statement is in your handwriting.

A. That is my handwriting & my figures.

The statement is here handed to the notary to be made an exhibit, and marked "Plff's' Ex. No. 1, E. S. More, notary," by the
3322 notary, the same to accompany the testimony of the witness.

C. Q. 271. What do you say, Mr. Tallman, whether this statement against Klock, which is made Complainants' Exhibit No. 1, and now in the hands of the notary, is or is not an account of wheat sold by you under the date of the 15 of March, 1864, against this same Mr. Klock, who occupied your brother Wm.'s farm, as you have stated and whom you have spoken of as Ezekiah Klock in your testimony?

A. It has come to my mind now; it is against the same Mr. Klock; I see so by the "credit on horse" appearing on the account. This was after he left my brother's farm.

C. Q. 272. Do you now remember of having sold Mr. E. Klock wheat to the amount of $70.69 March 15, 1864? I ask you to state
3323 whether you made that sale or not to him at that date.

A. According to that statement I did, but I had no recollection of it.

C. Q. 273. Do you testify that you did not make that sale to him at that date?

A. I do not, because I don't know; I don't remember.

C. Q. 274. Do you testify now here that you have no recollection of making such a considerable sale of wheat to Mr. Klock so resently as March 15, 1864, when you pretend here as a witness to recollect a much smaller sale to the same man as early as July, 1860?

3324 A. I did not pretend to recollect; I relied on my date in the book and the charges therein for memoranda.

C. Q. 275. Then, do I understand you that you have no recollection now of the alleged sale of the wheat to Klock in July, 1860, independently of the book?

A. I have not. I couldn't recollect the amount of grain I sold him and I don't change my memory after I make an entry on the book.

Proceedings here adjourned to 9 a. m., Feb. 14, 1880, at the same place.

E. S. MORE,
Notary Public.

LAW OFFICE OF JOHN W. SUGGETT,
CORTLAND, CORTLAND CO., N. Y.,
Feb. 14, 1880—9 a. m.

Parties appeared pursuant to adjournment & cross-examination of MOSES T. TALLMAN resumed:

3325 C. Q. 276. You stated in your early cross-examination that you remembered selling wheat to Klock and that you had no recollection of but one sale of wheat to him. Taking now the entries in your books of the sale on the 23d of July, 1860, and the entry on this statement of Klock's acc't (Com. Ex. No. 1) of the sale there appearing of March 15, 1864, there were two sales of wheat to him, were there not?

A. I can't say only from entries on my books. They are the best recollection I have. The statement (Comp. Ex. No. 1) I don't know as is on my book anywhere. I don't deny the handwriting of this statement. Where it came from I can't tell. I didn't know it was in my book until yesterday.

C. Q. 277. I now ask you, Mr. Tallman, when you stated in your early cross-examination that you remembered one, and but one, sale by you of wheat to Klock, to which of these two
3326 sales of wheat to that man—the one of July 23d, 1860, or the
one of March 15, 1864—did you refer? Please give us some explanation specifically on this point of inquiry.

A. I took my book to see what the earliest entry against E. Klock after he came to Preble was. I found it 1860, July 23d, eight bushels and 57 lbs. of wheat at 10 shillings a bushel. Farther than that I do not remember of looking in the book any farther. I mear-ly looked to fix the date or the year that he came onto my brother's farm.

C. Q. 278. When was it that you thus looked at your book?

A. It was shortly after my brother Wm. came up to look at the pipe, some 4 years ago last summer some time; the same time that I have already spoken of.

C. Q. 279. Did you make this examination of your book by request of any one?

3327 A. I don't remember as I did; if it was by any one it was by my brother Wm.

C. Q. 280. Was anybody present other than yourself when you made the examination?

A. I don't think there was, without some portion of my family were in the room; I can't say what part of it was there.

C. Q. 281. Then, when you started to examine your book it was to fix the date of Klock's coming to Preble, was it? Please answer directly, yes or no.

A. It was.

C. Q. 282. Then at that time & before examining the book you didn't remember the year when he did come, did you?

A. I did not exactly; that was the reason I looked on the book to find the year.

C. Q. 283. Did you make that examination of the book in aid of any effort to be made to render this section of the pipe produced here of signifigance or value in connection with the driven-well discovery or inventions? Please answer directly, yes or no.

3328 A. I did for that purpose.

3329 C. Q. 284. Mr. Tallman, will you look at your book here produced, at page 114, containing the entry that you have testified in regard to, against E. Klocks, purporting to have been made July 23, 1860; state whether there are figures & figuring within the lines of that account not strictly a matter of the account.

A. There are some figures above the figures of the account within the ruled lines of the charge or account. The figures are "2 20
1 00
———
3 20"

C. Q. 285. Who made those figures, if you know?

A. I think I made them myself; they look like my figures.

C. Q. 286. Have they any connection with Klock's acc't there appearing?

A. There is not any.

3330 C. Q. 287. In whose handwriting is the account of Klock, appearing on page 114 of your account-book here produced.

A. That is my handwriting.

Cross-examination closed.

Redirect-examination by counsel for def't:

Q. 1. State, if you know, how far this farm of Wm. E. Tallman's, about which you have testified of, — from Preble village?

A. It is about 1 mile.

Q. 2. State whether or not, if you know, how far it is necessary to dig for water in Preble village.

A. I don't know from my own knowledge; only from hearsay.

Q. 3. What is the general nature of the soil in the locality where this well was made by your brother, as testified to by you?

A. Gravelly.

3331 Q. 4. In what year did you return from Steuben Co., N.Y.?

A. The last time was in 1856.

Q. 5. State whether or not you have con-uously resided in Preble since that time.

A. I have.

Q. 6. You have stated that your brother, Wm. E. Tallman, deceased, moved off his farm in 1864, the fall of that year, and that the Klines took possession of the farm the spring of 1864. State how your brother occupied or lived on the farm from the spring of 1864 to the fall of the same year.

A. He reserved a portion of the house to live in, and lived there until fall, when he went to Syarcuse.

The witness is here handed the section of the pipe about which he has testified.

Q. 7. Will you please state the number of perforations in this section of pipe.

3332 A. Eighty-six.

Q. 8. Please measure the size of the smallest perforation you can find on the pipe.

A. A trifle less than $\frac{3}{10}$ of an inch square.

Q. 9. Measure the largest perforation in the pipe and give its size.

A. A quarter of an inch in diameter; they are round.

3333 By consent of complainants' counsel the said photographs are here admitted and marked as follows, respectively:

"Defendants' Exhibit No. 1, at Cortland, N. Y., Edward S. More, notary public," and Def't's Ex. No. 2, at Cortland, N. Y., Edward S. More, notary public."

3334 Q. 10. You have stated in your cross-examination something in relation to a "petcher pump," so called, being used to obtain water from the dug well made by your brother in 1858 or 1859, as you have testified; state whether or not the said "petcher pump" was used in 1859, when you helped your brother Wm. E. repack the pump attached to the pipe inserted in the bottom of said dry dug well & operated by said windmill.

A. It was not used in the well at the time that I was down in the well.

C. Q. 11. Was this "pitcher pump" operated by this windmill?

A. I never saw it worked by the windmill.

C. Q. 12. You have stated in your cross-examination that you went down into the said dug well of said Wm. E. Tallman 3335 to repack or assist in repacking the pump attached to the pipe inserted in the bottom of said dug well; now, state upon what you stood when repacking said pump.

A. I stood upon the earth in the bottom of the well.

Q. 13. State whether or not you stood in any water or was there any water visable where you stood?

A. There was not any.

Q. 14. State how this pump attached to the top of the said pipe was constructed—that is, what did you observe about it when you had it apart to repack the same; state fully.

A. It had a straig- cylinder with a piston, with a head attached to the lower end of the piston; there was a valve in the piston-head,
and at the lower end of the cylinder there was *there was*
3336 another valve; I repacked it with candle-wicking and oil; the
valve- were made of leather; I used this candle-wicking to pack around the piston-rod; this lead pipe led up from the top of the cylinder from one side of the center.

Q. 15. State whether or not the pipe inserted in the dry or dug portion, as you have testified to, was tightly and solidly in the earth of the bottom of said dug well.

A. It was as firm as the earth would naturally hold it.

Q. 16. You have stated on your cross-examination some-
3337 thing as to the length of the rod extending from the crank
on the shaft of the windmill down to the pump. State now how you make up the length of the said rod, if you can; also state whether or not there were any guides to keep the said rod in any particular place.

A. The length I never measured; I merely estimate from the depth of the well and the hight of these posts, as I remember; it must have been about 25 feet long; I don't recollect of there being any guides.

Q. 17. Have you in your possession now a sketch showing generally this open well, the pipe inserted in the bottom thereof, the pump, plank to which it was attached, rod extending from the windmill, and lead pipe extending from the pump to the surface; if so, produce it.

3338 A. I have.

The witness here produces sketch of the well, which is left with the notary and marked " Def't's Ex. No. 3, Cortland, N. Y., Edward S. More, notary public."

Q. 18. Does the paper marked " Def't's Ex. No. 3, Cortland, N. Y., Edward S. More, notary public," represent generally correctly the
said open well, pipe inserted in the bottom thereof, and pump
3339 attached to said pipe, made by your brother, Wm. E. Tall-
man, as you have testified to, made in 1859?

A. I consider that a very good representation of the well, pump, discharge pipe, and the connecting rod, or a portion of it; also the portion of pipe represented in the ground.

Def't's counsel here puts in evidence the sketch on the paper marked " Def't's Ex. No. 3, Cortland, N. Y., Edward More, notary public," and which is here received and marked as above.

Q. 19. Did you ever sell to E. Klock, or Ezekiah Klock, any wheat prior to the time that he moved onto your brother's farm, in 1860, as you testified?

A. I never did.

3340 Q. 20. Was the entry made on page 114 of your acc't-book here before the notary made at the time by you, at which it bears date — July 23, 1860?

A. I believe that the charge is true, according to the date. If it had not been it wouldn't have been there.

Q. 21. Have you made the said entry since the time it bears date?

A. I have not.

By mutual consent the examination was here adjourned for dinner to 1.30 p. m., at the same place.

1.30 p. m.—Parties appeared pursuant to adjournment, and examination of MOSES T. TALLMAN was here resumed:

The notary here cut out page 114 of the acc't book referred to by witnesses' testimony, and it is offered in evidence as an exhibit, and received and marked by the notary "Def't's Ex. No. 4, Cortland, N. Y., Edward S. More, notary public," and the notary made a hand in red ink pointing to the entry in question, to E. Klock. 3341

Q. 22. State the size of the crank on the windmill shaft.

A. From 2½ to 3 inches in length. In its revolutions it described a circle of from 5 to 6 inches in diameter.

Q. 23. You have stated that there was a camp-meeting held on your farm in 1859. State if there was any camp-meeting held prior to that time or any subsequent to that.

A. It was the only one that I know of; if it was prior to that it was before I bought the farm.

3342 The def't's counsel here states that the whole book from which "page 114" has been taken would have been put in evidence if it were not for unsettled accounts appearing thereon, and will, if possible, produce the original book at the he-ring of this cause, and here asks the notary to mark the same for the purpose of identification, which he does, at page 115, as follows: "Def't's Ex. No. 5, Cortland, N. Y., Edward S. More, notary public."

Q. 24. Has there been any Methodist camp-meeting or other camp-meeting in or about Preble or near your farm, or near the farm formerly owned by Wm. E. Tallman, since 1859?

3343 A. There has not been any in the town of Preble to my knowledge.

Q. 25. State what was Wm. E. Tallman's knowledge, so far as you know, as to mechanical & scientific subjects—that is, was he a man who devoted time to and understood mechanical, hydraulic, and other kindred subjects?

A. His knowledge was good on most any subject; it was good on building & constructing; also in inventing.

Q. 26. State what offices Wm. E. Tallman held in the town of Preble that you know of—that is, official position.

A. He was supervisor of the town in the year the Co. jail was built. I don't remember what year that was.

Q. 27. You have stated in your cross-ex. from C. Q. 239 to 254,
both inclusive, in reference to driven wells, so called, which
3344 you caused to be put down by Mr. Dunham for yourself on
your own premises. State why you did not make these wells
yourself, stating briefly your reasons therefor.

A. I had no tools to do it with. I didn't have any rod or gas tongs — turn the pipe.

Q. 28. You have made answers in cross-questions put to you as to the length, separately, of the pipe used in each of these wells made by Dunham on your own premises. Do you know how far the pipe in each of those wells went down into the water?

A. I don't know that I have ever measured the depth of the water in the pipe.

Q. 29. You have stated in your cross-examination a conversation
which took place between you & Jessie M. Blanchard in
3345 regard to the section of the pipe shown by the photographs
here introduced. Have you any feeling or prejudice as
against the complainants herein?

A. I can't say that I have in particular; they are all strangers to me; never saw one of them to know him until Mr. Andrews came to Homer on this examination.

Q. 30. State if you know what your brother, Wm. E. Tallman, called this well & windmill made in 1859 by him, as testified to by you?

A. I don't know that he had any particular names for it, any more than it was called the windmill.

Q. 31. Did E. Klock continue to live in the town of
3346 Preble or vicinity after he moved off of your brother's farm
in the spring of 1864? If so, how long?

A. He did, some 3 or 4 years; it might have been longer. He went onto a farm & then he moved to the village of Preble; couldn't tell how long he lived in the village; then he went to Onondaga Co., N. Y.

Recross-examination by complainants' counsel:

ReC. Q. 1. Your brother, Wm. E. Tallman, deceased, obtained a patent for an invention originated by him some years ago, did he not?

A. He did; 4 or 5 years ago.

R. C. Q. 2. In reply to redirect examination you stated to def't's
counsel, in answer to a question, that "I can't say that I have any
feeling in 'particular' against this patent." Have you any feeling
in general?

3347 A. I can't answer the question in that way.

R. C. Q. 3. Did you make that last answer from a suggestion made by *by* def't's counsel?

A. I did not.

R. C. Q. 4. Didn't you start to answer it when the def't's counsel interrupted by stating to you that if you couldn't answer it to say so, when you made the answer, "I can't answer the question?" Answer yes or no.

A. No; he didn't stop me; it was the counsel on the part of the complainants that stopped me.

R. C. Q. 5. Did not the defendant's counsel state that if you could not answer the question to say so? Answer directly, yes or no.

3348 A. No.

R. C. Q. 6. Have you any feeling whatever against this patent on which this action is brought against the same? Answer directly, yes or no.

A. I don't know that I have any, directly or indirectly.

R. C. Q. 7. Have you interested yourself in talking with witnesses or persons in regard to this alleged well testified to by y- in behalf of defendant or his counsel or otherwise? Please answer directly.

3349 A. I have.

R. C. Q. 8. You have testified that you saw the pipe, of which a section you produced here before the notary, in your brother's possession before it was used in the well, as you testified; also some few years afterwards when your brother gave it to you, did you not?

A. I did see it before, & so testified.

R. C. Q. 9. But you did not see it when it was inserted in the well?

A. I was not present when it was driven into the ground.

R. C. Q. 10. Do you know, of your own knowledge, that it was driven in? Answer yes or no.

A. I can't answer it in that way.

R. C. Q. 11. Question repeated.

A. I can't tell only what I saw.

R. C. Q. 12. Did you see it when it was put into the ground?

3350 A. I did not. I have answered it two or three times over.

R. C. Q. 13. Will you testify that that pipe that you saw in the well inserted in the bottom, with the small holes covered with dirt, that you recognized it, from what you there saw, as the pipe you say you saw in your brother's possession before, and he left in your possession afterwards? Please answer directly, yes or no.

A. I couldn't identify the pipe in the ground.

R. C. Q. 14. Who made the drawing marked "Def't's Ex. 3?"

A. Mr. Suggett, the def't's counsel.

R. C. Q. 15. You stated that your brother, Wm. E. Tall-
3351 man, had a considerable knowledge of mechanics and was
an inventor & patentee. Did your brother ever take out
more than one patent, to your knowledge?

A. Not but one, to my knowledge.

R. C. Q. 16. In what line of mechanics was he more particularly interested & informed?

A. I can't say in any one particular, but he had a good mechanical mind. He was a miller. He never served an apprenticeship, but had a good general knowledge of mechanics. He run a grist-mill & saw-mill and also a machine shop.

R. C. Q. 17. Did he employ himself personally about the mills & machine shop?

A. He did so, &, further than that, he had a shop where he made washing machines; also spring beds.

R. C. Q. 18. Have you been more or less engaged in the same line of business?

3252 A. I have. I run a steam engine. I have owned 2 of them; also have been interested in 2 saw-mills, a grist-mill, cider-mill, machine shop, cheese factory, and farming — building plank roads.

R. C. Q. 19. Then you have a good general knowledge of machinery of different kinds, such a knowledge as a farmer cannot be expected to have, have you not?

A. I think I have.

R. C. Q. 20. Now, returning to Ex. No. 3, you have been asked the diameter of this well and couldn't give it. Please give us the nearest approximate estimate to its diameter that you are able to do.

A. I should judge it was about 3 feet, as near as I could judge from recollection.

3353 R. C. Q. 21. Now, there is a plank shown in this drawing (Ex. No. 3) as standing upon the bottom of the well, extending above its top, and then shown broken off. Is that drawing, so far as that plank is conserned standing upon the bottom of the well, a correct representation of the plank in the well in question?

A. It is correct, so far as standing on the bottom is concerned. It extended up to the windmill frame—the bottom of it.

R. C. Q. 22. Was the plank attached to the windmill frame; and, if so, how?

A. The upper end of the plank was fastened to the bottom of the frame. There were sills on the ground. I think there was a piece put across the frame to which this plank was fastened. That is the best of my recollection.

3354 R. C. Q. 23. What was the size of this cross-timber?

A. I couldn't give the size.

R. C. Q. 24. Have you any particular knowledge of this timber?

A. I have not.

R. C. Q. 25. And, as I understand, that plank only came above the top of the well sufficient to *to* be fastened to this timber?

A. That is all.

R. C. Q. 26. Do you know how it was fastened, whether by nailing or bolting?

A. I can't say which.

R. C. Q. 27. How thick & how wide was the plank?

A. I can't give the dimensions or say whether it was a plank or a timber.

R. C. Q. 28. Do I understand you to say that when you went down into the well you took the pump apart?

A. I didn't say so.

3355 R. C. Q. 29. Did you take it apart?

A. I unscrewed the cap and put in packing & oil and put it back again and screwed it down. The examination I had of the pump was before it was put down in the well.

R. C. Q. 30. What assistance, then, did Wm. E. Tallman render you when you went in the well to pack this pump?

A. I can't say that he helped me pack it; it didn't require much assistance.

R. C. Q. 31. You have stated in your direct that you assisted Mr.
Wm. E. Talman in packing that pump. Please state what
3356 Wm. E. Tallman did at that time.

A. He requested me to repack it for him, for the reason that I understood running an engine and knew how to pack it. That is the way that I assisted him.

R. C. Q. 32. Please state how the lead pipe was attached to the pump, as here shown.

A. It was attached to a short tube projecting out of the edge of the pump; came out at the top—at the side.

R. C. Q. 33. Then you did not see the inside of the pump when you was in the well?

A. I did not.

R. C. Q. 34. Did you ever see it more than once and that previous to its being put in the well?

A. I don't think I did, the inside.

R. C. Q. 35. In what manner was the lead pipe attached to this short projecting pipe?

A. It was soldered on.

R. C. Q. 35½. Was the suction pipe attached to the pump
3357 before or after the pump was put in the well?

A. The pump was attached to the pipe after the pipe was put in the well.

R. C. Q. 36. Was the lead discharge pipe attached before or after the pump was put in the well?

A. I can't say.

R. C. Q. 37. Was the pump attached to the plank or timber before or after it was put into the well?

A. It must have been after.

R. C. Q. 38. I did *did* not ask what must have been done, but what was done? Please answer.

A. I couldn't say.

R. C. Q. 39. Do I then understand that you do not of your own knowledge know when or where either of the pipes were connected to the pump or the pump to the timber?

A. No; I do not.

R. C. Q. 40. What did you see after that — enabled you to
3358 answer the question as to whether the pump was attached to
the suction pipe after the pump was put in the well?

A. Because it would destroy the pump to put the pipe down after you couldn't get the pipe in without injuring the pump; it isn't the common way of doing it.

R. C. Q. 41. Then you have answered my questions not from actual knowledge of the facts, but by conclusions you have arrived at by inductive reasoning?

A. Yes; and common sense.

R. C. Q. 42. What does the "yes" apply to? You haven't answered that part of the question.

A. I answer now—by practical experience which I have had and seen in the operation of putting down driven wells and all acting pumps thereto.

R. C. Q. 43. And you do not answer from actual knowledge 3359 of the facts in this particular instance?

A. No, sir; the whole particular I do not.

R. C. Q. 44. In what portion of the particular do you so answer?

A. Not any particular part.

R. C. Q. 45. Were you and your brother, Wm. E. Tallman, both in the well at the same time when you repacked it, as you have stated?

A. I think we were; he stood in the bottom of the dug well.

R. C. Q. 46. How did you go down into the well—that is, by what assistence?

A. By a short ladder.

R. C. Q. 47. Was that left in the well when you and your brother were in there?

A. I think it was.

R. C. Q. 48. State in what part of the bottom of the well the lower end of the plank occupied.

A. One side of the well, between the pump & the wall.

3360 R. C. Q. 49. The pipe you have spoken of as being in the bottom of the well was inserted in the ground in the center of the bottom, was it not?

A. No; it was on one side, so as to give room to work.

Direct examination resumed:

—. You stated on your recross-examination that you wished to make further answer or explanation of the alledged feeling against this patent or the owners thereof; please make such explanation as you desire.

A. I can't bring it to my mind when that was.

R. C. Q. 50. Will you please say why, if you had no feeling against the patent or its owners or the enforcement of their rights under the patent, having only in view the maintenance of right, why 3361 you refused to allow any one connected with the patent to see & examine this piece of battered, rusty, perforated old pipe? Was it from any fear that they would change, alter, or damage the article, or what was the reason? Please state fully.

A. In the first place I have no knowledge of my own of this patent well, so called—that they had any patent; I was advised by Counsel R. H. Duell to keep it very choice, especially from the Green men; he further stated that they would steal, or send a man to steal it if they could.

R. C. Q. 51. And were you afraid that if Mr. Blanchard and Mr. Parsons saw that paper that they would rob you of it, steal it from you, or, in despite of your presence, in any way injure it if you should — it to them?

3362 A. I mear-ly was acting under the instructions of counsel; for that reason I refused to let Mr. Parsons see it, and, further than that, they told me to keep it as choice as the apple of my eye.

R. C. Q. 52. And you followed the advice of your counsel in so doing; is that so?

A. He was not my counsel; I didn't go after him; he came up there.

R. C. Q. 53. What connection hat Mr. Duell with you that caused you, as you say, to act under the instructions of counsel, alluding to Mr. Duell as that counsel?

A. Not any whatever.

R. C. Q. 54. Then why did you act under his instructions?

A. Because I considered him a reliable attorney and knew what he was talking about.

R. C. Q. 55. Mr. Tallman, this morning you stated
3363 & 3364 that you had measured purforations in this original
of the photograph, and marked Def't's Ex. 1 & 2, and that you found the smallest hole $\frac{3}{16}$ of an inch square and the largest $\frac{1}{4}$ of an inch, and round. Now, will you please to point out to me a round hole through this pipe? Mark it or them, if more than one, for future identification.

A. The holes are not exactly round; are nearly so; a few of them; there are 2 or three that are nearly round, but not perfectly round.

R. C. Q. 56. Are there any, and, if so, how many, that are perfectly square?

A. I don't know that any are perfectly square.

R. C. Q. 57. Are the perforations which you have measured, as well as all the others, larger upon the outside and smaller upon the inside?

A. They have that appearance.

3365–3367 R. C. —58. From your knowledge of mechanical — will you please say how those perforations appear to be made, whether by boring, punching, drilling, or otherwise?

A. Punching.

(Signed) MOSES T. TALLMAN.

Subscribed and sworn to before me this 20th day of March, 1880.

[SEAL.] (Signed) EDWARD S. MOORE,
Notary Public in & for Cortland County, N. Y.

3368 U. S. Circuit Court, District of Iowa. In Equity.

WM. D. ANDREWS *et al.*, Complainants,
vs.
GEORGE LELAND, Defendant.

MONDAY, *Feb.* 16*th*, 9.30 a. m.

Parties appear pursuant to adjournment.

Complainant, Wm. D. Andrews, appears in person to examine witnesses.

ABRAM VAN DEN BURGH presents himself for examination as a witness in behalf of defendant, and, being duly sworn on behalf of defendant, in answer to questions put to him by def't's counsel, testified:

Q. 1. State your name, age, residence, & occupation.

A. Name, Abram Van Den Burgh; age, 63 years; residence, Preble, Cortland Co., N. Y.; occupation, carpenter & joiner.

Q. 2. How long have you resided in Preble?

A. I have always lived there, with the exception of 4 or 5 years. I was born there.

3369 Q. 3. How long have you been a carpenter & joiner?

A. Thirty-five years certain.

Q. 4. Did you ever know a person by the name of Wm. E. Tallman?

A. Yes, sir.

Q. 5. When and where did you first become acquainted with him?

A. In Tully, Onondaga Co., N. Y.; about 40 years ago.

Q. 6. State whether or not Wm. E. Tallman ever lived in Preble.

A. Yes, sir.

Q. 7. How long ago did he live in Preble?

A. I can't tell how long ago he left there; it may be in the neighborhood of 8 or 10 years; I can't say positive anything about it.

Q. 8. When did you first know of his first living in Preble?

A. I knew him when he first came there; the nearest to my recollection it must be 23 or 24 years ago; I would not be positive.

Q. 9. Is this Wm. E. Tallman the brother of Moses T. Tallman, who was sworn here Saturday last?

A. He is so said to be.

Q. 10. Is this Wm. E. Tallman dead; and, if so, how long ago did he die?

3370 A. I couldn't tell the length of time; they say he is dead; I hav-n't seen him for years.

Q. 11. Where did he live when he lived in the town of Preble—that is, how far from Preble corners?

A. In the neighborhood of a mile and a half down across the lots; by the road two miles or more.

Q. 12. What was his business when he lived in the town of Preble? State generally.

A. He was running a saw-mill and grist-mill and farming.

Q. 13. State whether or not he resided on a farm.

A. He did.

Q. 14. How far is that farm from the river?

A. It joins the river.

Q. 15. Were you ever employed by the said Wm. E. Tallman for any purpose? And, if so, state briefly for what.

A. Different kinds. I used to work to repair the saw-mill, do mill-
wrighting, putting up churn power, putting shafting for a threshing
machine. I built a large addition to his house; put up a large milk-
room for him; built picket fence all around his door yard; done
off a dwelling-house for him at the mill; repaired a tenant house
for him; worked on his barns; built a windmill or pump
3371 frame for him, and did other carpenter and joiner work for him.

Q. 16. When did you commence to work for said Wm. E. Tallman?

A. I can't tell positive; I think it was the second year after he came there; it might have been the first; I began work shortly after he came there.

Q. 17. State what you did relating to the said windmill frame or pump frame you have mentioned; state fully.

A. I built the frame according to his draft and attached the wheel or gearing to it, or helped, and set it to work pumping water.

Q. 18. State how you made this windmill frame, giving briefly the construction, dimensions, & form.

A. In the first place, we laid down very heavy sills on the ground
and bedded them solidly into the ground; the width I couldn't tell
exactly; according to the best of my recollection they were from 8
to 15 feet apart; I can't tell the length of the posts, but can pretty
nearly; I should think they were about 18 feet long, as near as I
can recollect, and the frame was from 8 to 10 feet square; there were
four posts; the posts were inclined so as to be a pyramid in form;
I couldn't tell the spread on the top; there might have been two
feet difference in the size at the top & bottom; there were
3372 girts framed in all the way up the frame, so as to hold the
frame perfectly solid; the frame was braced.

Q. 19. Where were these sills situated with reference to anything between them—that is, was there anything between them?

A. There was a dug well between these timbers, and it might have been a little at one side; I won't say positive.

Q. 20. State whether or not the lower part of the frame-work of the windmill enclosed this dug well—that is, on the surface.

A. Yes, sir; I think it did.

Q. 21. Did this windmill frame then stand directly over this dug well?

A. I should think it did.

Q. 22. Where was this dug well situated on Wm. E. Tallman's farm? Describe briefly.

A. It was situated on the north side of the cross-road that runs east & west below the corners—Preble corners. I couldn't tell exactly the distance from Wm. E. Tallman's house; it might have been a quarter of a mile. The dug well was in the fields.

Q. 23. Where did you build this frame for this windmill.

A. I built it by the side of the place where I put it up—near by the dug well; I framed it.

3373 Q. 24. How long were you at work making this windmill frame, putting it up, and doing the other work in connection therewith?

A. I couldn't tell how long.

Q. 25. State as near as you can recollect.

A. I can't recollect how long. I was doing all kinds of work, and whether I worked at that all the time steadily I couldn't say.

Q. 26. State your best judgment of how long it took you.

A. That would be owing to how much help I had on it; I can't say.

Q. 27. State the object of this windmill frame which you built.

A. We built it for the purpose of pumping water.

Q. 28. Was there any windmill used on or with the said frame?

A. Yes, sir.

Q. 29. Describe briefly this windmill.

3374 A. I couldn't describe it exactly; it was a large wheel that run with wings; I couldn't give the diameter; it was a large wheel.

Q. 30. Describe briefly how it was attached to the frame that you built.

A. It was hung on the upper girting, the girts that was framed in the top of those posts; the boxes were laid on the top of those girts and bolted in the shaft that they run in?

Q. 31. How long was the shaft of the windmill?

A. It must have been, as near as I can recollect—I won't be positive as to the length—it might have been 6 or 7 feet; I wouldn't swear positive as to the length.

Q. 32. Were there any means provided so that the windmill could accommodate itself to the wind as it changed?

A. I couldn't say.

Q. 33. Describe the shaft of the windmill—that is, as to its form—more particularly.

A. It was a round shaft and an elbow made in the shaft.

Q. 34. Were the wings of the windmill attached to the shaft at one end?

A. The shaft was attached to the wheel, but the wings was not attached to the shaft.

3375 Q. 35. Were these arms or rods projecting from or near one end of the shaft to which rods or arms the wings of the windmill were connected?

A. Yes, sir.

Q. 36. You have mentioned a dug well. Please describe fully all you saw about it.

A. It was a dug well; I should say it was 3½ feet across at the top; it was roughly stoned up; I couldn't say positively as to the depth; I never measured the depth; it was dry; I never saw any water in it.

Q. 37. State if you saw anything in the bottom of this dug well.

A. I saw earth and stone and an iron pipe that was in the bottom.

Q. 38. State whereabouts the iron pipe was situated in the bottom of the well.

A. It was drove in the bottom, near the centre, I should judge.

Q. 39. Describe fully all that you saw about this iron pipe.

A. I saw the end of it up out of the ground; I should judge it stuck up out of the ground about a foot; it might have been more or less; I couldn't swear positively whether there was a screw thread on its upper end or not.

3376 Q. 40. State, as near as you can, the diameter of the iron pipe.

A. It might have been an inch and a half to an inch and three-quarters; I couldn't say anything nearer than that.

Q. 41. State the bore of this iron pipe, as near as you can recollect.

A. I couldn't tell; it would be owing to the thickness of the tube.

Q. 42. How did this part of the pipe that stuck up above the bottom of — dug well stand, perpendicularly or obliquely?

A. Perpendicularly, I would say.

Q. 43. After building the windmill frame, helping to attach the windmill thereon, as testified to by you, what else did you do?

A. I planked the top of the mill over, fixed a large trough for the water to run in; that accomplished, the whole thing pretty much after it was set running.

Q. 44. How was this water obtained by this windmill?

A. From this iron pipe.

Q. 45. By what means was it obtained from the iron pipe?

A. There was a pump attached to this pipe.

Q. 46. Describe that pump.

3377 A. I couldn't describe it fully.

Q. 47. Describe the pump as near as you can.

A. There was a rod came down in the centre of the pump through the cap, and there was a tube, as near as I can recollect, on one side; I couldn't describe the inside of the pump; I never saw the inside of it; I can't say how long the barrel of the pump was; I can't tell its diameter.

Q. 48. Was the pump attached or fastened to anything beside the iron pipe; if so, what?

A. It was fastened to a timber.

Q. 49. How was it fastened to the timber?

A. I couldn't say positively; it was either grip-ed or bolted; I could not say which.

Q. 50. Was this timber fastened to anything?

A. Yes, sir.

Q. 51. Describe the fastenings of the timber.

3378 A. As near as — can recollect, it was fastened to the planking that was over the well.

Q. 52. Was it fastened at its lower end?

A. It stood on the ground at the bottom of the well.

Q. 53. Did you see the pump before it was put in the well?

A. I did.

Q. 54. Where?

A. When it was brought on the spot and I helped put it in.

Q. 55. Who helped put it in besides you?

A. Wm. E. Tallman.

Q. 56. Describe how you put it in.

A. We went down in the well; Mr. Tallman let it down to me with a trace chain and then I set it into this pipe, and then I came out to let him go down to see that it was all right; and then we set this timber down inside of the pump and the pump was fastened to that, but in what way I couldn't say positively.

Q. 57. How did you set the pump on the iron pipe?

A. I couldn't say whether it was screwed on or fastened another way; I do not recollect as to that.

Q. 58. Was it fastened firmly on?

3379 A. I couldn't say.

Proceedings here adjourned for dinner till 1.30 p. m.

1.30 P. M.

Parties appeared and examination of ABRAM VAN DENBURGH resumed.

Q. 59. What did Wm. E. Tallman do or help to do in putting the pump into the dry dug well?

A. He assisted all the way through.

Q. 60. Did Wm. E. Tallman go down into the dug well while putting the pump in?

A. He did.

Q. 61. What did he do there?

A. He fastenened the pump to this pipe so it would be stationary and to suit himself.

Q. 62. Where were you when he was fastening the pump to this iron pipe?

A. Upon the platform, where I could see into the well.

3380 Q. 63. Did you see him turn the pump around *around* on top of this iron pipe?

A. I did. I saw him work it on.

Q. 64. What did you understand he was then doing?

A. Fastening the pump, so it would draw water.

Q. 65. How was the rod that went through the cap of the pump connected with the crank or elbow of the shaft of the windmill.

A. It was fastened by a pitman.

Q. 66. Describe the pitman.

A. It was a straight, hard piece of timber; I should say 2 inches square; I should say it was 25 feet long.

Q. 67. What was the diameter of the circle circumscribed by the revolutions of the crank of the windmill?

A. I should think about 6 inches.

Q. 68. Did you see the windmill work and the pump operate?

A. I did.

3381 Q. 69. Describe how the pump & windmill operated.

A. It drawed water very nicely.

Q. 70. How long were you and Mr. Tallman putting this pump down into the dry dug well?

A. We began it in the morning and by 6, when the bell rung for supper, we had just got it to drawing water.

Q. 71. Where did you stand when you set the pump on top of this iron pipe?

A. I stood on the ground on the bottom of the well.

Q. 72. Was there any water there then?

A. No, sir.

Q. 73. Was this pipe which stuck out of the ground, as you have described, the suction pipe of the said pump after the said pump was fastened to the same, as you have described?

A. It was.

Q. 74. Was the earth packed tightly about this pipe which stuck out of the ground, as you have described?

3382 A. It was.

Q. 75. How was the water conducted from the said pump in the dry dug well to the surface of the earth?

A. By a pipe.

Q. 76. Describe that pipe, if you can.

A. I couldn't tell whether it was a lead or iron pipe.

Q. 77. How was the last-mentioned pipe connected to the pump?

A. I think that it was screwed onto a tube which projected from the side of the pump.

Q. 78. Into what was the water discharged that was pumped by this pump?

A. Into a plank vat or trough.

Q. 79. How long did you stay after the pump was put in, as you stated, to see it pump water?

A. Not but a little while that evening.

3383 Q. 80. Did you ever see it pump water after that?

A. I did.

Q. 81. How many times?

A. I couldn't tell how many times, but a good m-y.

Q. 82. Did you see it the next day after putting the pump in?

A. I was there the next morning.

Q. 83. Was it then working?

A. It was.

Q. 84. State, if you can, about how much water or how big a stream of water was pumped up?

A. A nice stream of about an inch or three-quarters of an inch.

Q. 85. State how the pump and windmill worked—that is, whether it worked satisfactorily or not at the time.

A. It did, as far as anything that I know.

Q. 86. How did you come to see this pump operating afterwards? State briefly.

A. Mr. Tallman and I used to go up there often; take our nooning by going up there to see if everything was all right.

3384 Q. 87. State when it was that you built this windmill frame.

A. It was in the summer of 1859.

Q. 88. State why you know it was in the summer 1859, giving your explanations and reasons therefore.

A. It was in the same year my cousin, Daniel Van Auken, came and rented the hotel at Preble. He afterwards bought it. I took him down across from the hotel down to camp-meeting in Moses Tallman's woods, and showed him what I had been doing. He thought it was a great piece of machinery to see the wheel drawing water so nicely.

Q. 89. What is there about the camp-meeting?

A. There was a Methodist camp-meeting in Tallman's woods.

Q. 90. Have you any other means of fixing the date of when you made the windmill frame and when you put the pump in?

A. Nothing more than by my youngest daughter; I know what her age was at that time.

Q. 91. What is the age of said daughter now?

A. Thirty-four years; I am not sure that is her age now.

Q. 92. How was this pump and windmill and well regarded in the neighborhood where it was made? State briefly.

3385 A. They claimed it was quite a curiosity.

Q. 93. State whether or not Wm. E. Tallman in any way made any secret of this well or of the windmill, pump, or other apparatus connected with it.

A. Not that I know of.

Q. 94. Did you have any visitors or spectators when you were making the frame, putting in the pump, or doing the other work, as stated by you?

A. There was a good many come here; don't know whether they came for that purpose or not; couldn't state as to that.

Q. 95. State whether or not there was any public discussion in Preble or vicinity at the time about this method of getting water made by Wm. E. Tallman, as you have described. State generally the nature & purport of the same.

A. There was. I heard it argued that they couldn't get water enough into the pipe to make it work.

Q. 96. State whether or not you heard this method of obtaining water as practised by Wm. E. Tallman, as you have described, publicly discussed, and was it known at the time generally in and about Preble.

3386 A. I don't know; it was new to me. After it was made it was publicly known and discussed.

Q. 97. After Wm. E. Tallman had made this well in 1859 did you ever hear him describe how he made it in your presence or in the presence of others?

A. I did.

Q. 98. Did you ever hear Wm. E. Tallman publicly describe how he made it?

A. No, sir.

Q. 99. When was it that he told you how he made it?

A. At the time it was drawing water first; the day we put on the pump.

3387 Q. 100. How long do you know of this windmill and pump being in operation?

A. It run there for several years, but how long I couldn't tell.

Q. 101. For what purpose was the water used which was pumped up?

A. For watering his stock on the farm.

Q. 102. State, if you know, how many head of cattle obtained water thus pumped up.

A. I couldn't tell how many head. He had a large dairy of cows. He drove them up to the barn to milk, and then they would go to the creek, I suppose. I have seen them drink at the creek.

Q. 103. Whenever you saw this pump in operation state whether or not it continued to furnish a good supply of water.

A. It did.

Q. 104. How long did you continue to work for Wm. E. Tallman after you and he had made this windmill frame and put in the pump, as you have testified?

A. I worked for him as long as he owned the farm.

Q. 105. During the time you worked for him did you obtain a knowledge of and become acquainted with his mechanical and inventive capacity?

A. I did.

Q. 106. State generally what it was.

3388 A. It was good; I learned more of him than I ever did of any man about mechanics.

Q. 107. State whether or not this Wm. E. Tallman ever held any office in your town.

A. I think he did.

Q. 108. What office did he hold?

A. Pathmaster, supervisor, and justice; I am not certain of that.

Q. 109. Returning, now, to the dug well, how did you and Wm. E. Tallman get in and out of the same?

A. We had a small, narrow ladder.

Q. 110. What was the piston-rod made of that was attached to the pitman you have described, and how long was it?

A. I couldn't tell whether it was iron or steel, and the length I couldn't say positively.

Q. 111. How was the pitman connected to the piston-rod?

A. I think it was clapped and bolted onto the wood.

Q. 112. Returning again to the windmill frame, how many large sills were there imbedded in the ground?

A. Two long sills.

Q. 113. Were these two sills parallel when buried in the ground?

A. They were.

3389 Q. 114. In what direction did they lay—north & south or east & west?

A. I think they laid east & west, but I won't be positive as to that.

Q. 115. About what was the thickness of one of these sills?

A. From 9 to 10 inches square.

Q. 116. You have stated that there were 4 posts that projected up from these sills; what was — manner of connection of these posts with these sills?

A. They were morticed and drawbored in.

Q. 117. How were the girts and braces attached to these 4 nearly upright posts?

A. The girts were framed in and drawbored; the braces were cut in saw-buck fashion, made of 4 x 4 inch scantling.

Q. 118. About what was the thickness of one of these nearly upright posts?

A. I should think they were from 7 to 8 inches square.

Q. 119. What was the size of the girts forming the top of the frame-work?

A. Six inches square, I should judge.

Q. 120. Was the top of the frame-work level or not when the frame was erected?

A. It was.

3390 Q. 121. Give your best recollection as to the size of the top of the frame-work.

A. About 2 feet less than the bottom.

Q. 122. Where in the shaft of the windmill was the crank you have described?

A. I couldn't tell that, but it came over the centre of the well.

Q. 123. Then the pitman worked in the centre of the space formed by the frame of the windmill, did it not?

A. It might have been in the centre and it might have been a little one side.

Q. 124. What were the wings of the windmill made of?

A. To the best of my recollection, they were made of wood—thin timber; I will not be certain.

Q. 125. State, if you remember, how the wings of the windmill accommodated themselves to the shifting of the wind.

A. I couldn't tell positively, but I think they were reversible.

Q. 126. What was the size, breadth, and thickness of the timber put down in the dry dug well to which the pump was attached?

A. I should think it was 6 by 8 hard timber, sawed joist fashion.

3391 Q. 127. How was the pitman attached to the elbow or crank of the mill shaft?

A. I couldn't tell whether it was a wood yoke or an iron one, but it strikes me it was iron.

Q. 128. State, if you remember, who helped you raise this windmill frame.

A. I couldn't tell the names; it was Mr. Tallman's month & day help he had on the farm.

Q. 129. Who helped you to put on the windmill shaft and put in the windmill?

A. Mr. Wm. E. Tallman.

Q. 130. Of what materials, if you remember, was the pump made of which was used down in the dry dug well, as you have testified to?

A. I don't know; I couldn't say.

Q. 131. State whether or not this dry dug well was open or covered when you commenced to work constructing the said windmill frame near by.

A. It was partially open.

Q. 132. State, when you first observed this pipe which you have described sticking up about a foot above the bottom of the dry dug well, whether it was before you commenced framing the windmill frame, during the time you were framing it, or afterwards.

A. It was when I first began to frame; it was queer to me before how he was going to get water out of a dry well.

3392 Q. 133. State whether or not the opening or bore of the pipe had any stopper in it when you first observed the pipe sticking up about a foot from the bottom of the dry dug well, or was it open?

A. There was a plug in it.

Q. 134. Who removed the plug and when?

A. I took it out when I put the pump in.

Q. 135. What was the plug made of?

A. Couldn't tell what kind of wood; it was wood, I think.

Q. 136. When you were in the well getting out the plug did you feel of the pipe, attempt to wriggle it, or otherwise move it to see how solidly it was in the ground?

A. Not in particular; it didn't move any when I set the pump on—it seemed to stand firm.

Q. 137. About how long were you down in the well setting the pump on as you have testified?

A. It might have been 5 or 10 minutes; it was only a short time.

Q. 138. Did you come up before Wm. E. Tallman went down to complete attaching the pump to the pipe?

A. I did.

Q. 139. How long did Wm. E. Tallman remain down there after you came up and he went down?

3393 A. It might have been from 20 minutes to half an hour.

Q. 140. You stated that Wm. E. Tallman told you how he inserted this pipe in the bottom of the dry dug well at or about the time of your constructing the windmill frame. Please describe briefly how he told you it was done at that time.

A. I asked him about the pipe. I asked him if he expected to get water out of that small hole in the pipe—if there would water enough come in there—and he told me there was a good many holes in the pipe, and he showed me in what way they were put in. I argued with him that those holes would close up with sand and gravel, and he said that would be owing to how fine the gravel was. He told me that he had drove the pipe down in and he said the bottom of the pipe was on a level with the bottom of the lake, creek, and springs, and there would be plenty of water.

Q. 141. How did he state he drove it?

A. He told me he had put a cap of timber on top of the pipe and
then set a hard-wood scantling on that. I told him I
3394–3397 supposed the pipe would kink and run sideways, so thin
a pipe. He claimed that after so great a depth there

would not be any large stones to kink the pipe—it would go down easily into the ground. He drove on the scantling with a sledge, he told me.

Q. 142. What is the nature of the soil in the bottom of this dry dug well?

A. Sand and gravel earth.

By mutual consent, the further examinations in these proceedings were here adjourned until Thursday, March 4, 1886, at 10 a. m., at the same place, pursuant to stipulation hereto annexed.

(Signed) EDWARD S. MORE,
Notary Public.

3398 MARCH 18TH, 1880.

Parties appeared pursuant to adjournment and stipulation, 10 a. m.

D. L. Hulbert, Esq., compl's' counsel; John W. Suggett, Esq., def'ts'.

ABRAM VANDENBURGH, witness, presents himself for examination and examination resumed:

Q. 143. You have testified that at the time of quitting work on the day you put in the pump the pump was in operation and was pumping water; state what kind of water it was pumping.

A. It was dirty, thick water.

Q. 144. State whether or not there was any sand or gravel in the water that you observed.

3399 A. There was.

Q. 145. Did you see the kind of water the pump was pumping the next morning; if yes, what kind of water was it?

A. It was "rily" looking water.

Q. 146. When did the water become clear?

A. I couldn't say exactly.

Q. 147. Did you afterwards see the pump pumping clear water?

A. I did.

Q. 148. You have spoken in reference to the age of your youngest daughter; can you now give the date of her birth; if you —, do so?

A. Nov. 20, 1844.

Q. 149. How old was she when you made this windmill frame?

A. She was 15 that fall.

Q. 150. You have stated the diameter of this pipe that you saw sticking up out of the bottom of the dry dug well; do you

3400 mean the diameter from outside to outside or the internal diameter?

A. From outside to outside.

The witness here shown the section of the tube left with the notary and photographed in Def't's Exhibits No. 1 and 2, and measures the diameter of the tube, both external & internal, and states that the outside diameter is an inch and a half & over; almost an inch and three-quarters; the internal diameter is an inch and a quarter.

The witness is here shown a paper, which he now holds in his hand.

Q. 151. Does the paper which you now hold in your hand have sketched upon it a general view of the windmill frame, and the plan of the said frame when placed upon the ground, with reference to the dry dug well?

3401 A. It does.

Paper held by the witness is here offered in evidence by the defendant.

Paper here received in evidence and marked "Def't's Ex. No. 5, Cortland, N. Y., Edward S. More, notary public."

Q. 152. Does Def't's Ex. No. 5, which you now hold in your hand—that is, does Fig. 1 of the same—represent generally a side elevation of the windmill frame constructed by you, as testified to by you?

A. It does.

3402 Q. 153. Does Fig. 2 of the last-mentioned exhibit represent generally a plan view of the sills of the windmill frame & the entrance to the dry dug well?

A. It does.

Q. 154. Are the references and figures & letters written upon the last-mentioned exhibit—that is, do they correctly explain the same?

A. They do.

Q. 155. Do you now hold in your hand another paper?

A. Yes, sir.

Q. 156. Does the paper which you now hold in your hand represent generally correct the dry dug well, the pipe or tube in the bottom thereof, the pump attached to the said pipe, the timber to which the said pump was attached, the discharge pipe of the said pump, and the piston rod thereof, about which you have heretofore testified.

3403 A. It does.

Paper here offered in evidence by def'ts.

Paper here received in evidence and marked "Def't's Ex. No. 6, Cortland, N. Y., Edward S. More, notary public."

Q. 157. Does Def't's Ex. No. 6 contain correct references, under the caption "References" thereon, to the different parts enumerated by you heretofore in this examination?

A. It does.

Direct examination here closed.

3404 Complainants' counsel, reserving their right to move for the rejection of the testimony of this witness on the grounds before stated, will enter upon the cross-examination of the witness.

C. Q. 1. What is your youngest daughter's name you have referred to in your testimony?

A. Jennie.

C. Q. 2. When you were examined the other day you could not give her exact age positively, could you?

A. I could not.

C. Q. 3. When asked this morning by def't's counsel as to her age didn't you have a paper in your hand, & didn't you look at the same before answering the question?

A. I did.

C. Q. 4. Will you produce that paper?

A. Yes, sir. And witness does so.

C. Q. 5. Is the writing on that paper in your hand?

A. No, sir.

C. Q. 6. Whose handwriting is it?

A. My wife's.

C. Q. 7. When did she write it, if you know?

3405 A. This morning.

C. Q. 8. At whose request, if any one, was it obtained?

A. By my own.

Proceedings were here adjourned to the same place to 1.30 p. m.

1.30 p. m.—Parties appeared pursuant to adjournment, and cross-examination of ABRAM VANDENBURG resumed:

C. Q. 9. This paper or memoranda contains the date when your youngest child, Jennie, was born, does it not?

A. Yes, sir.

C. Q. 10. Did you know that you were to be interrogated in regard to that to-day when you procured the memoranda?

A. I did. I saw my mistake.

C. Q. 11. What mistake do you refer to in your last answer?

A. Well, I went right home and searched the record. I have not seen the record for years.

C. Q. 12. Please state the mistake you referred to in cross-question 10.

3406 A. I don't know as I know your meaning.

C. Q. 13. In answer to cross-question 10 you say, "I did. I saw my mistake." What mistake do you refer to? And the notary is requested to read cross-question 10, which is done.

3407 A. Well, the mistake that I made in the date.

C. Q. 14. What date?

A. The date of the girl's birth.

C. Q. 15. Have you another daughter living besides this Jennie?

A. I have; her name is Annie.

C. Q. 16. When was she born?

A. The 3 of November, 1884.

C. Q. 17. Is the date of her birth on this memoranda?

A. I think it is.

C. Q. 18. Will you please examine it, and state if you haven't made a mistake of about 4 years?

A. I have; but not intentionally. I was thinking about the other girl's age and accidentally made a mistake.

C. Q. 19. At whose request, if any one's, did you make the memoranda of the date of Annie's birth & bring it here to-day?

A. It was my own as much as any. I was anxious to rectify any mistake.

C. Q. 20. Had you made any mistake in regard to the date
3408 — Annie's birth on your former examination?

A. Yes; I think I did.

C. Q. 21. Please state as correctly as you can what mistake you made in regard to the date of her (Annie's) birth?

A. I didn't get it right; I didn't get it old enough.

C. Q. 22. You spoke of a Daniel Van Auken on your direct examination. Is he now living; and, if so where?

3409 A. I couldn't say whether he is living or not; I suppose he is living, & is, for anything I know.

C. Q. 23. How long has it been since you have seen him?

A. I haven't seen him in 12 years, certain; I saw him then at Preble corners then.

C. Q. 24. Have you any information as to his whereabouts?

A. He went off South somewhere; in Pittsburgh, Pa., I think; I am not certain. I understand he is there now; am not certain.

C. Q. 25. What year did he purchase the hotel property at Preble?

A. I couldn't tell what year he bought it. He rented it at first and bought it afterwards. I couldn't tell what year he bought.

C. Q. 26. Tell me as near as you can.

A. I couldn't tell any nearer than that.

C. Q. 27. Give me your best recollection—the year that he bought it.

A. I couldn't tell whether he had it two or three years before he bought it.

3410–3412 C. Q. 28. Will you please give me some idea of the year that he purchased it?

A. I couldn't any nearer than I have. It might have been in 1820 or it might have been before that.

C. Q. 29. About how many years, as near as you can recollect, did he rent the property before purchasing?

3413 The notary here states that he understood the witness, in his answer to cross-question 28, to have said: "It might have been in 1820 or it might have been before." As there was & is a dispute between complainants' counsel and defendant's counsel as to what the witness intended to say & did say, the notary here asks the witness what he meant to say & what he did say in answer to cross-question 28; to which the witness replied, "I meant to say it was 18 or 20 years ago. I would like to correct that statement. I have been thinking it over. I am not as quick to reckon as some. I I should say it was in the neighborhood of 30 years ago, to the best of my recollection now. I will not be certain."

Cross-Q. 29 repeated.

A. I couldn't tell any nearer than I have. It might have been two or three years, but I would not be certain, because I don't know.

3414 C. Q. 30. Do I understand you as meaning to be understood that, on reflection, it was about 30 years ago that Van Auken purchased the hotel property at Preble?

A. To the best of my recollection it was 30 years ago, but I could not be positive as to the length of time.

C. Q. 31. Do you know, and, if so, who, Van Auken rented of?

A. Yes, sir; Mr. Cushing; he is a merchant and now lives at Little York.

C. Q 32. Did he purchase the hotel property of Cushing?

3415 A. He did.

C. Q. 33. About how long did he, Van Auken, continue in the hotel business at Preble?

A. I can't tell positive.

C. Q. 34. Did he carry on the hotel until he sold out?

A. He did, for all I know.

C. Q. 35. He didn't occupy the hotel there after that, did he?

A. Not to my knowledge.

C. Q. 36. How many years, according to the best of your recollection, did Van Auken occupy the hotel there in Preble as owner & lessee?

A. I couldn't tell.

C. Q. 37. Please give me your best recollection as to the time.

A. I don't know as I could tell any nearer than I have; I can't set any time.

3416 C. Q. 38. I notice in your direct examination you state that you were away from Preble about 5 years of the time since you first came there; please state the year that you went away.

A. I couldn't tell; it was before and after I worked for Mr. Tallman.

C. Q. 39. In making up the 5 years you were away several different times, were you not?

A. Yes.

C. Q. 40. How long were you away at the longest time?

A. The first time that I was away was when I was first married—for two years.

C. Q. 41. Please state when that was, as near as you can.

A. It was the second year I was married; it was 40 years ago.

3417 C. Q. 42. Did you reside in Preble village during the time that Van Auken run the hotel?

A. No, sir; I reside about a mile & a quarter from Preble, at Baltimore, across the river from Preble.

C. Q. 43. Please give me some idea as to the length of time that Van Auken occupied the hotel.

A. I couldn't say how many years; he might have been there 10 years, but I can't tell, for I don't recollect.

C. Q. 44. About what year was it that you first commenced to work for Wm. E. Tallman?

A. I can't answer you positively as to that; it might have been the first or second year that he came onto the farm. I will not be positive.

3418 C. Q. 45. Please give me the year as near as you can.

A. I can't exactly.

C. Q. 45½. Was it before or after 1850?

A. I couldn't say whether it was or not.

C. Q. 46. About how many years should you judge that Tallman occupied the farm before he moved away?

A. I couldn't say.

C. Q. 47. Can you give me the name of any of the men that worked for Wm. E. Tallman by the month in the year 1849?

A. I can; James Ready, Jefferson Gatman, and a man by the name of Hoffman; I think a man by the name of James Wickham and a man by the name of George Trowbridge; those are all that I can think of now; there was five or six of them, I think.

C. Q. 49. Were they to work there during the time that you was at work on this windmill, as you have testified to?

3419 A. To the best of my recollection, they were.

C. Q. 50. Did any of them assist in the building of the windmill or the construction of the well while you were there working on the windmill?

A. I think not; the well was dug when I went there.

C. Q. 51. When you first commenced to work on the windmill or frame was the well dug and stoned and in the condition it was when you put the pump down, as you have testified?

A. It was.

C. Q. 52. Had you seen the well prior to your commencing the work on the windmill?

A. I had not.

C. Q. 53. In what month did you commence such work?

A. I couldn't say what month.

Proceedings were here adjourned to Friday morning, March 19, 1880, at 9 o'clock, to the same, place by mutual consent.

3420 FRIDAY MORNING, *March* 19, 1880—9 o'clock.

By mutual consent the further proceedings were adjourned to the Messenger House, in Cortland village.

Parties appeared as before and Wm. D. Andrews appeared for the complainants & his counsel & ex. proceeded.

C. Q. 54. In what season of the year was it?

A. It was the fore part of summer.

C. Q. 55. Should you judge it was either in May or June?

A. I should say it was in June, I think.

C. Q. 56. Did you work continuously on the windmill from the time that you commenced until you pumped water, as testified to?

A. I did, for anything that I know now.

C. Q. 57. Give me the length of time that you were so engaged, as near as you recollect that you were, building the frame & working on the mill.

3421 A. As near as I can tell, it might have been under of a fortnight.

C. Q. 58. Did you do any other work on the windmill or well in the way of repair or otherwise after that?

A. I did.

C. Q. 59. How long after that?

A. I think it was the next summer or spring rather.

C. Q. 60. What did you do?

A. I repaired the wings. Two or three of the wings got off.

C. Q. 61. How did you repair them?

A. I repaired them by putting them back and making new ones when they were broke.

C. Q. 62. Making new what?

A. New wings.

C. Q. 63. What was the size of the wings that you made and how were they constructed?

A. I couldn't tell the size exactly. They might have been three
feet long—that is, the length of each wing. As near as I can recol-
lect, they were two feet wide. I never measured them. It
3422 strikes me that they were made of thin wood and — eyes
fastened to the wings and around the shaft that they reversed
on.

C. Q. 64. Then the repairing that you done was to make new wings after the pattern of those that were broken by being blown off?

A. Yes, sir.

C. Q. 65. Did you ever do any other repairing about the well or windmill?

A. I did.

C. Q. 66. State just what.

A. I put in a set of new braces in the bottom part of larger timber.

C. Q. 67. When did you do that?

A. I couldn't say. It was some time after—a good while; but what length of time I couldn't say positive.

C. Q. 68. Give me, as near as you can, the year that you did the last-mentioned repairing.

A. I couldn't tell. It might have been three or four years
3423 after, as near as I can tell. The braces were all of a size. The
lower braces proved to be too small. The lower braces being
larger, they did not hold, but warped so they were loose, and we had
to put in new ones that were larger.

C. Q. 69. Was the putting in of the new braces the last repairing that you did about the well or windmill?

A. No, sir; I think not.

C. Q. 70. Are you positive that it was not the last?

A. Yes, sir.

C. Q. 71. What did you do next in the way of repairs?

A. I couldn't say whether I did the bracing referred to or the pitman. I put in a new pitman, but whether I did it before or after I put in the braces I can't say.

C. Q. 72. Describe the new pitman you say you put in.

A. It was a hard-wood timber. I should say it might have been
over two inches square, the same as the old one was.

3424 C. Q. 73. What was the length of the new pitman?

A. I couldn't say any nearer than I have. It might have
been twenty-five feet or only twenty. I couldn't say as to the length
positively.

Defendant's Ex. No. 6 shown witness.

C. Q. 74. Who drew this representation and made the reference on this exhibit?

A. Mr. Suggett, the defendant's counsel.

C. Q. 75. The reference "E" shows a section of pipe in the ground representing perforated holes in the bottom, all of which appears to be below the bottom of the dug well, with the exception of a few inches of the pipe. Of your own knowledge do you pretend to know what was below or in the ground at the bottom of the dug well—that is, whether the pipe was perforated or not?

A. No, sir; nothing but what I was told.

3425 & 3426 C. Q. 76. Did you give Mr. Suggett a description of the well to enable him to make "Ex. No. 6?"

A. I did.

C. Q. 77. Did you give him a description of the pipe appearing below the bottom of the dug well with the perforated holes, as appears in the exhibit?

A. I did not.

C. Q. 78. When you testified on your direct examination that "Ex. No. 6" represented generally correct the dry dug well, the pipe or tube in the bottom thereof, so far as "reference E" is concerned on that exhibit, appearing below the bottom of the dug-well perforations in the pipe, you haven't any personal knowledge of the same, have you?

3427 Cross-Q. 78 read over to witness.

A. With the exception of the top, I have not. The bottom that was out of sight in the ground I know nothing about.

C. Q. 79. (Def't's Ex. No. 5 shown witness.) The representation on Ex. No. 5 and the references thereon were made by Mr. Suggett, the defendant's counsel appearing on this examination, were they not?

A. Yes, sir.

C. Q. 80. Was the connecting rod which connected this 3428 pump piston rod with the crank of the windmill attached to the pump before or after the pump was let down into the well?

A. After it was let down and fastened.

C. Q. 81. Was the discharge pipe connected to the pump before or after the pump was let down into the well?

A. After.

C. Q. 82. Can you give a nearer approximation to the distance from Tallman's house to the well than you have already stated in answer to direct question 22, when you said, "It might have been a quarter of a mile?"

A. It is three-quarters of a mile, as near as I can judge. I didn't calculate to be understood a quarter of a mile. It was on the west side of the railroad. It is a quarter of a mile east of the west road running from Preble, as near as I can judge. It is about 3429 a quarter of a mile north of the east and west cross-road.

C. Q. 83. State, if you can, whether the well was in the first or second field from either of these roads.

A. As near as I can recollect, it was nearly on the line of those two lots, a little north, I should judge, from the line of the two lots from the east and west cross-roads. I think it was in the second lot from the north and south road.

—. Please state the position of that well with relation to the lot and fences, as they now stand.

A. I couldn't. I haven't noticed for a year how the fences there now stand.

C. Q. 85. Was there ever any other well of this or a similar description in any of those fields within a radius of one-fourth of a mile from this well of which you have been testifying, during the time of your residence in Preble?

3430 A. There is a well by the barn near the house, but it wasn't in the fields. There was no other, to my knowledge.

C. Q. 86. How long has it been since that windmill was in existence, standing there over that well?

A. I couldn't say.

C. Q. 87. Was there ever any other than the one windmill of which you have testified standing over that well?

A. Not to my knowledge.

C. Q. 88. Could there have been any other windmill standing over that well since the time of which you have testified concerning the one windmill?

A. I think not.

C. Q. 89. What was the cause of this windmill ceasing to be used?

A. They neglected keeping it in repair; they let it go down.

3431 C. Q. 90. Did the frame or any part of the mill remain standing after it ceased to be used for pumping; and, if it did, how long?

A. It stood there for some length of time. I wouldn't give any length of time. The wings were off and the wheel was on, & it stood there a long time.

C. Q. 91. How long did you continue to work for Mr. Tallman?

A. I worked for him as long as he owned the property; I can't tell how long that was.

C. Q. 92. Did this frame and remnants of the mill remain over the well at the time Mr. Tallman sold this property?

A. I am pretty positive it did.

C. Q. 93. Referring to Def't's Ex. No. 5, is this, so far as you are able to testify, a correct delineation of the frame of the windmill and its position in relation to the dug well?

A. It was drawn with my directions exactly as near as
3432 may be.

C. Q. 94. And all the parts of this frame, girts, braces, and connections, are, to the best of your knowledge, properly delineated in this drawing, are they?

A. A side view of one side this represents.

C. Q. 95. Is it a correct view of one side?

A. To the best of my knowledge, it is.

C. Q. 96. And is the plan view showing the well marked "B" and the sills marked "A," also correct?

A. Yes, sir.

C. Q. 97. After the windmill ceased to be used to raise water from that well was water obtained from it by any other means?

A. Not to my knowledge.

C. Q. 98. Are you prepared to testify positively that water was not obtained from that well after the windmill ceased to be used and for years after?

3433 A. I am not.

C. Q. 99. What were the arms of the windmill composed of; were they wood or iron?

A. I could not say positively.

C. Q. 100. Can you say positively what the ring or eye of which you have testified was composed of?

A. Iron or steel; iron, I suppose.

C. Q. 101. How was that eye connected to the shaft?

A. It was connected with an eye which was fastened around the rod which was fastened to the arms. Those eyes clasped around a small rod which held the wings reversable to the wind.

C. Q. 102. What were these small rods of which you speak, that held the wings and around which the eyes passed?

A. Iron, I suppose.

3434 C. Q. 103. What were they for?

A. To hold the wings to the arms.

C. Q. 104. Were the wings hung on these rods which were attached to the arms?

A. The wings were hung to rods attached to the arms.

C. Q. 105. How were the rods attached to the arms?

A. They were fastened, but in what way I couldn't say.

C. Q. 106. Were those arms wood to which these rods were attached?

A. I couldn't say positively.

C. Q. 107. Will you swear positively that any portion of that windmill, either its boxes, crank, hub, ring, eyes, arms, rods, or wings, were made of wood? And, if so, please state what part you are so willing to swear to.

A. I would not positively.

3435 C. Q. 108. Had you ever before worked upon or seen a windmill previous to working upon this one for Mr. Tallman?

A. It was the first one that I ever worked on; I had seen them before at a distance.

C. Q. 109. Have you ever since then worked upon or seen other windmills and been near enough to them to see and note their construction?

A. I have not.

Proceedings were here adjourned to 1.30 p. m., to the same place.

1.30 p. m.—Met pursuant to adjournment.

C. Q. 110. Then, Mr. Van Denburg, never having worked upon any other windmill or been near enough to study its mechanism, you have not in your description by any possibility got some other windmill mixed up with this one of Tallman's, have you?

A. No, sir.

C. Q. 111. Reverting to Defendant's "Ex. No. 5," F is the stated to be a journal box for windmill "shaft." How
3436 many of those boxes were there?

A. There were two boxes and two caps, the one box and cap being on one side of the frame and the other box and cap being on the opposite side.

C. Q. 112. The shaft which you speak of that ran in these boxes was the crank shaft that drove the pump, was it not?

A. It was.

C. Q. 113. Whereabout upon that crank shaft and where in relation to the frame, whether between its two sides or upon its outside, did the wings of the windmill revolve?

A. The crank or elbow that carried the pitman was in the middle or nearly so; it might have been a little one side; the wings of the windmill run on the outside of the frame; the shaft run over long enough so that the wings would clear the frame.

C. Q. 114. Referring again to "Def't's Ex. No. 6," are the proportions of the parts as here shown correct, according to the
3437 best of your belief?

A. The pipe below the bottom of the well I know nothing about. The drawing is so near that I could tell what it was for.

C. Q. 115. Please say if the diameter of the pump and the diameter of the suction pipe are, as you think, properly proportioned in that drawing?

A. As near as I could do it.

C. Q. 116. I ask the same information in regard to the discharge pipe & the piston-rod—as to their diameters.

3438 Cross-question 116 repeated to witness.

A. They are nearly so; I can't tell exactly; I am no draftsman; I know nothing about drawing to a scale.

C. Q. 117. If you know the diameter of any of the articles here alluded to, you can tell, can you not, without any knowledge of drawing, whether another one of twice the diameter is or is not properly shown?

A. I could tell if it was not proportioned right. I can tell
3439 the proportions of anything very quickly; anything that is
out of proportion I can see very quickly; if a draft of anything is out of proportion I could see it very quickly.

C. Q. 118. You build houses, do you not?

A. I do or have.

C. Q. 119. Do you not build them to scaled drawings?

A. By my own drawing & scale I work from.

C. Q. 120. Did you not build this windmill frame by a scaled drawing made by Mr. Tallman?

A. I did not.

C. Q. 121. What kind of a drawing did you build it from?

A. We marked it out on a board, Tallman and myself, and planned it out between us.

C. Q. 122. Could you frame a house from drawings that are not scale-?

A. I could frame a house without any drawings.

C. Q. 123. Do you usually frame houses without drawings?

3440 A. I have; we do not usually; I have with drawings, a sort of sketch from which I could get an insight from.

C. Q. 124. Who made the drawings on the board of this windmill frame, yourself or Mr. Tallman?

A. I made it in the first place a rough sketch; then Mr. Tallman added to it, or both of us together did.

C. Q. 125. Will you please say if this joint between the piston rod of the pump and the connecting rod is properly located, it being here shown a little below the mouth of the well?

A. Nearly.

C. Q. 126. And the well being ten or twelve feet deep, as is stated on this exhibit, then the rod from the pump to the joint was somewhere from six to eight feet long, was it not?

A. It might have been and it might not; I couldn't say positive.

C. Q. 127. Give the length of the piston rod according to your best knowledge and belief.

3441 A. I couldn't any nearer than I have; it might have been six or eight feet. I can't be positive as to the length.

C. Q. 128. Who assisted Mr. Tallman and yourself, if any one did, in putting that pump into the well and attaching it to the windmill?

A. Mr. Tallman and myself and nobody else.

C. Q. 129. When was the pump brought there and by whom?

A. I could't say.

C. Q. 130. You have said that you went down in the well and that Mr. Tallman lowered the pump down to you, and you set it onto the pipe, then went out of the well, and Mr. Tallman went down and attached the pump to suit himself. How did you secure that pump on the end of that inch and a quarter pipe, so that it remained there while you went out and Mr. Tallman went down to farther secure it?

3442 A. It rested on the end of the pipe and we did not release the chain until I got up and held it until Mr. Tallman could have it.

C. Q. 131. How did Mr. Tallman secure the pump to that pipe?

A. I coundn't tell; he shaped or worked it on; but whether there was a screw to it or not I couldn't say.

C. Q. 132. Do you not know that there was not a screw thread on that iron pipe that stood in the ground?

A. I couldn't say positively.

C. Q. 133. You had no recollection of seeing a screw thread on that pipe, have you?

A. I couldn't tell any nearer than I have.

C. Q. 134. Did you see an inner screw thread, known as a "female screw," in the bottom of that pump, of sufficient size to go
3443 over the screw on the end of that pipe?

A. I couldn't say.

C. Q. 135. Was there any screw or nut attached to the bottom end of that pump?

A. I couldn't say. I didn't notice the pump enough to know how it fastened on.

C. Q. 136. And you don't know how the bottom of the pump was made or what was attached to it when it was let down into the well, you being in the bottom of the well at the time?

A. I don't, because I went down with the pump on the ladder to steady it. I didn't see the bottom of the pump.

C. Q. 137. What time of day was the pump brought there, and what time of day was it put into the well?

A. I can't tell when it was brought there. I can't tell exactly the time of day it was put in the well. We sat it a running that day towards supper time.

C. Q. 138. Who packed the stuffing box of the pump before you set it to work?

3444 A. I can't say; I don't know, but it was all fixed when brought there.

C. Q. 139. Did either you or Mr. Tallman in your presence pack that stuffing box or do anything towards it?

A. Not that I recollect.

C. Q. 140. And do you recollect that Mr. Tallman did not pack it?

A. I do not.

C. Q. 141. Who fastened the pump to the timber in the well?

A. Mr. Tallman and myself.

C. Q. 142. Were you both in the well together doing it?

A. We were.

C. Q. 143. You have stated that this timber was fastened to the planking over the well; how was the planking over the well fastened?

A. There were timbers put in between the sills each side. The plank were spiked down on those timbers with the exception of one.

3445 C. Q. 144. When was this planking put on and spiked down, as you say?

A. Before we let the pump down.

C. Q. 145. And was the upright timber fastened to these planks before you let the pump down?

A. Not stationary.

C. Q. 146. Was it put down before the pump was put down?

A. I think it was not.

C. Q. 147. Do you positively testify that it was not?

A. I would not.

C. Q. 148. Would you testify positively that the timber was not fast in place before the pump was put down?

A. I would not.

C. Q. 149. Were there or were there not holes bored through this timber through which to pass bolts or clamps to secure the pump to it?

A. I couldn't say.

C. Q. 150. Do you know anything about how that pump was secured?

3446 A. I couldn't say which way it was fastened. It was fastened either by bolts or clamps.

C. Q. 151. Who fastened it?

A. Mr. Tallman and myself; I assisted.

C. Q. 152. There being no other persons than yourself and Mr. Tallman present during the day and while that pump was being put in and secured, and Mr. Tallman being dead and you not being able to state how that pump was secured, either to the timber or to this iron pipe, there can be no person now living who can give us any information in regard to those matters. Is not that so?

A. I couldn't say.

C. Q. 153. Are the statements made in the last question of complainants on which the final questions were based correct or not?

3447 A. I don't know whether there was any one there or not besides us; there might have been lots there that I don't recollect of now; Mr. Tallman and I did the work; I don't recollect of any one but us two being there now.

C. Q. 154. Have you not testified that there was no other person except yourself and Mr. Tallman present during the putting in and fastening of that pump?

A. I think I have.

C. Q. 155. Then the statements on which question 152 were predicated were correct, were they not?

3448 A. I couldn't say whether they were or not.

C. Q. 156. Was there any person present during that time, while you were putting in and securing that pump, other than yourself and Mr. Wm. E. Tallman?

A. I couldn't say whether there was or was not.

C. Q. 159. Will you swear that there was any person present other than yourself and Mr. Tallman when you were putting in that pump?

A. Not that I know of.

C. Q. 160. Did you have the mill and pump running when you left that night?

A. I did.

C. Q. 161. And was it running when you went there the next morning?

A. It was.

C. Q. 162. How long did it then continue to run to your knowledge before being stopped?

3449 I couldn't say; I couldn't tell any length of time; it run a good while.

C. Q. 163. Can you positively state that that pump run one week after you put it up before it stopped?

A. I couldn't tell positively. If the wind blew as it did when we put it up it did run. If the wind slacked it stopped.

C. Q. 164. You were at the windmill and well nearly every day for a considerable length of time, were you not?

A. No; not every day. I was there every two or three days for some time. We could see it from where we were at work every day. If it stopped we looked to it.

C. Q. 165. Were any repairs made either to the mill or pump within the first two or three weeks after it was started?

A. There might have been and might not. I think not.

C. Q. 166. In answer to direct question 88 you said that
3450 you took your cousin, Daniel Van Auken, to the windmill
and showed him what you had been doing, "and he thought it a great piec- of machinery to the see the wheel drawing water so nicely." These remarks were applied to the windmill, were they not?

A. Yes, sir.

C. Q. 167. In answer to direct question 92, which was "How was the pump and windmill and well regarded in the neighborhood where it was made?" you answered: "They claimed it was quite a curiosity." That claim was applied to the windmill, was it not?

A. Yes, sir.

C. Q. 168. In direct question 93 you were asked if Mr. Tallman made any secret of this well; you answered: "Not that I know of." Do you know of any other person in that neighborhood or elsewhere who made a similar well after that well of Mr. Tallman's was made?
And, if so, say who it was that made it, and when and where
3451 it was made.

A. I couldn't say that there was any to my knowledge now.

C. Q. 169. Did Mr. Tallman himself, to your knowledge, ever make another similar well?

A. Not to my knowledge.

C. Q. 170. When did you first hear of any claim being made that this well of Mr. Wm. E. Tallman's, of which you have been testifying, was similar to the driven wells which originated in Cortland and were patented by then residents thereof?

A. I couldn't tell whether it was a year or two years ago. There
was a stranger came to me and asked me if I was the man
3452 that put down that well. I didn't ask him his name and
didn't know him.

C. Q. 171. And this was the first time you ever heard of such claim being made, and it was within the last two or three years?

A. It wasn't three years; it was within the last two years. I didn't know it then. After he was gone I inquired into it and they said there was a patent on this drive-well business, but I didn't know where the patent was or anything about it. I inquired into it out of curiosity.

C. Q. 172. Had you never previous to that time heard that there was a patent upon driven wells?

A. Not that I recollect.

C. Q. 173. When, after this well of Tallman's, did you first see a driven well?

A. I couldn't tell anything about when or where.

C. Q. 174. And your residence, Mr. Van Denburg, is within eight miles of Cortland village, with a railroad passing 3453 through both villages on which several passenger trains pass from the one village to the other each day, and Cortland village is the county-seat of your county? Are these statements all correct?

A. They are.

C. Q. 175. In answer to question 96 you were asked if this was not considered a new method of getting water and was not discussed as such. Now, you answered, "I don't know; it was new to me." Now, was not whatever discussion you may have heard directed to the subject of the windmill as being a new way of procuring water?

A. I think it was.

C. Q. 176. How long a time would it take to fill a pail from that well—an ordinary two and a half gallon pail?

A. I couldn't say; that would be owing to how fast the wind made the wheel go or how quick a stroke it took; I never tried it and I couldn't tell.

C. Q. 177. Did you fit the boxes and the windmill onto the frame yourself?

3454 A. With Mr. Fullman's help, I did.

C. Q. 178. That being so, are you certain that you have made no mistakes in the manner in which the windmill and its shaft were attached to the frame?

A. I am not certain.

C. Q. 179. Then do you mean us to understand that the testimony you have given in regard to this windmill, well, and pump you are not certain of?

A. No, sir; I don't wish to be understood in that way.

C. Q. 180. How do you wish to be understood when you say you are not certain?

A. I mean to be understood that I am not certain as to how the boxes were fastened.

C. Q. 181. Were the boxes fastened to the girts, as they are represented in the drawing, without regard to how they were fastened?

A. I think they were.

3455 C. Q. 182. Were there any guides for the pump piston-rod? If so, please describe them.

A. There was a guide to the piston rod through this floor so it couldn't "wabble." There was a hole through the planks about the size of the piston so it would play easily.

C. Q. 183. Do you mean through the plank that covered the well?

A. Yes, sir.

C. Q. 184. Were there no other guides than the hole through the plank?

A. I think not.

C. Q. 185. Then the piston rod must have extended above the top of the well and have been considerably larger than it is shown to be in Def't's "Ex. Cortland No. 6," was it not?

A. This iron rod did not come up in sight above the planking; I mean the iron piston rod.

C. Q. 186. Then am I to understand that you testify that the pis-
ton rod itself had no guide and that the only guide from the cap of
the pump to the crank of the windmill was formed by a
3456 hole in the plank through which the pitman played, and
that that hole formed a guide for the piston and pitman
rod?

A. I don't wish to be understood in that way.

C. Q. 187. Then please explain how you do mean to be understood in regard to the guides to the piston rod.

A. This piston rod didn't come in sight. The joint was below the planking, and there was guides fastened to this timber for the piston rod to steady by.

C. Q. 188. Did you not a few moments since state that there were no other guides than the hole through the plank that covered the wall? I refer to your answer- to cross-questions 182, 183, & 184.

A. I didn't calculate to be understood that there were no
3457 guides to the piston rod. I supposed they were getting at
the pitman.

C. Q. 189. Did not Mr. Suggett, the counsel for defendant, first suggest that the hole through the plank covering the well was a guide to the pitman before you made any change in your testimony, and had not all the questions asked you in relation to those guides referred specially and distinctly to the piston rod and not to the pitman?

A. Couldn't say.

Proceedings here adjourned to 9 a. m., March 20, 1880, at the same place.

MARCH 20, 1880—9 a. m.

Parties appear pursuant to adjournment to the same place.

C. Q. 190. What was the width and thickness of the plank over the well through which the pitman passed?

A. I couldn't say the width or thickness of the plank.

C. Q. 191. How large was the hole through it and what was its
shape?

3458 A. It might have been two and a half inches square, as
near as I can recollect.

C. Q. 192. Was it square?

A. I think it was.

C. Q. 193. Did the pitman touch the sides of this hole and act as a guide to it?

A. Partially.

C. Q. 194. Explain what you mean by "partially."

A. Well, so it would not shove the piston rod sideways, so as to affect the rod so it would come down nearly perpendicularly.

C. Q. 195. Was the pitman guided by that hole in any way, shape, or manner? Please answer yes or no.

A. This hole—the pitman might have come down all right without this hole. It wasn't intended to be a perfect guide to the pitman.

C. Q. 196. Question 195 repeated and answer demanded—yes or no.

A. Yes.

3459 C. Q. 197. You stated yesterday that there were several guides and the piston rod attached to the timber to which the pump was fastened. How many of those guides were there and of what were they made of?

A. I can't say, and I hain't said several, neither.

C. Q. 197. How many guides were there attached to that timber?

A. I can't say.

C. Q. 198. Was there one?

A. I think there was.

C. Q. 199. Will you swear that there was?

A. I think I would.

C. Q. 200. Question 199 repeated and answer yes or no demanded.

A. Yes, sir.

C. Q. 201. What was that guide composed of?

A. I think it was an iron guide, to the best of my recollection.

C. Q. 202. Will you swear that it was an iron guide?

A. Not positively.

C. Q. 203. Have you a good memory?

3460 A. Well, as good as folks in general, I think, for that length of time.

C. Q. 204. Do you mean to say that the time since these occurrences has been so long that you are unable to make positive statements in regard to this machinery and its attachments which you yourself assisted in putting up and was the leading workman in doing?

A. I can't give every particular, but the outlines I can give.

C. Q. 205. How far from the pump was this guide you speak of?

A. Not but a short distance, so that it would play & not interfere with the hoisting.

C. Q. 206. How far could it be above the pump and not interfere with the hoisting?

A. It could be within eight or ten inches from the top of the piston rod.

3461 C. Q. 207. Was that guide within eight or ten inches from the top end of that piston-rod?

A. It might have been and might not; I wouldn't say positive as to the distance.

C. Q. 208. Now, please to answer the question how far was that guide above the top of the pump.

A. I can't tell any nearer than I have told. I never measured the distance and I can't give it.

C. Q. 209. Give the nearest approximate distance that you are able to.

A. I have as near as I can get at it.

C. Q. 210. What distance have you given which is as near as you can get at it?

A. I have given it as near as I could; I never measured it and can't give it the exact measurements, because I don't know.

C. Q. 211. What approximate distance have you given, and will you please repeat, without having exact measurements, what was the approximate distance from the top of the pump to that guide?

3462 A. I can't say; I never measured it; I don't know; I can't tell any nearer than I have.

C. Q. 212. Then do you wish us to understand that you are entirely unable to tell how far above the top of the pump that piston-rod guide was placed?

A. I am unable to tell the exact distance.

C. Q. 213. How near can you tell?

A. I might tell within two feet or perhaps a foot or ten inches, maybe; I can't say positive.

C. Q. 214. Then tell us within two feet of what that distance was.

A. I can't positively say within two feet.

C. Q. 215. And still do you swear positively that there was a guide on that piston-rod attached to the timber to which the pump was secured?

A. I can.

C. Q. 217. Have you a distinct recollection of such a guide being attached as described in my previous question, or do
3463–3465 you testify because of the supposed necessity of their
having been such a guide?

A. I have a distinct recollection of there being such a guide; I do not testify from any supposed necessity.

C. Q. 218. Having a distinct recollection of that guide, you will now please state whether it was made of iron, wood, or other material, and how far above the pump it was placed.

A. To my best recollection, it was of iron, but I wouldn't be positive; I can't tell the distance; it might have been one foot or two feet or more.

C. Q. 219. And is this what you term a distinct recollection?

A. It is not.

C. Q. 220. Then you have not a distinct recollection?

3466 Cross-question 320 repeated to witness.

C. Q. 321. Referring to "Ex. 6," was the connection between the piston-rod of the pump and the pitman made in the manner as delineated in that drawing?

A. I couldn't say it was, sir; I couldn't say how that joint or attachment was made, exactly; I think there was a joint; I couldn't say positively; according to the best of my recollection, there was a joint.

3467 C. Q. 222. Did or did not Mr. Suggett make this drawing
according to the description you gave him?

A. Yes, sir; he did.

C. Q. 223. And was the drawing of the joint made according to the description you gave him?

A. Yes, sir; as near as I could recollect at that time.

C. Q. 224. And does the joint as shown in the drawing agree with your present recollection?

A. Not exactly; no, sir.

C. Q. 225. Then you have changed your recollection in regard to that joint since you described it to Mr. Suggett and that drawing was made, have you not?

A. Partially.

C. Q. 226. State in what respect.

A. In the way that it was put together.

C. Q. 227. Describe the difference between that drawing and your present recollection as regards the connection between the piston rod and the pitman.

3468 A. It should show an eye. I intended a joint as is shown in the drawing. Having put on my spectacles, I can see it more plainly, and I now see that it is in accordance with my recollection.

C. Q. 228. How long has your recollection in regard to that joint been as you now state?

A. When I ordered it drawn up I thought of it and I have thought of it since.

C. Q. 229. How long has your recollection been that it was as shown in the drawing, as stated in answer to cross-question 227?

A. I have thought about it frequently, but I can't tell how long.

C. Q. 230. Did you think so a year ago?

A. I did. The first time I thought about it was when this stranger approached me about it; I thought the matter all over.

C. Q. 231. And have you since continued to think that the piston-rod and the pitman were thus connected?

A. As far as I can think now, sir.

C. Q. 232. Did you not, in answer to direct question 111, say
3469 that the connection was made by the pitman being lapped and bolted to the rod? Please answer the question yes or no.

A. I didn't mean to be understood that it was lapped without a joint; I didn't mean it was bolted stationary without a joint.

C. Q. 233. If the rod lapped and bolted to the pitman that attachment would preclude any joint from occurring between the two, would it not?

A. It would.

C. Q. 234. Which was your attention more particularly called to, the windmill, the pump, or the pipe in the ground?

A. The windmill.

C. Q. 235. In answer to direct question 54 you say you saw the pump when it was brought on the ground. When was it brought on the ground?

A. I couldn't say exactly.

C. Q. 236. You then have no distinct recollection in regard to it?

A. Nothing more than from the time I helped to put it in.

3470 C. Q. 237. How was the windmill stopped and started?

A. I supposed it was started from the wind; that was what it was intended for.

C. Q. 238. Were there no means of regulating it or stopping and starting it other than by the action of the wind alone?

A. I couldn't say whether there was or was not.

C. Q. 239. So far as you know, so long as the windmill continued in order, did it run continuously whenever there was sufficient wind to drive it?

A. It did.

C. Q. 240. In answer to direct question 139 you say that Wm. E. Tallman was in the well from 20 minutes to half an hour attaching that pump to the pipe. What was he doing that required so long a time?

A. I couldn't say; only fastening the pump.

C. Q. 241. Could you not from the top of the well see what he was doing?

3471 A. I think I could pretty much, unless he was doing something under the pump; when he placed the pump on the pipe he might be doing something, for I couldn't see the end of the pipe.

C. Q. 242. Describe in detail all that you did see him do.

A. I couldn't tell all that I did see him do. I saw him fasten the pump on and put on the pipe, and fastened it to this timber and put on the conducting pipe that carried the water up out, and attached the pitman to the rod with my help. I can't state every little thing that I saw him do. I might have done it myself. We both assisted all the way through.

C. Q. 243. Were you in the well with Mr. Tallman during this twenty minutes or half an hour?

A. I think I was.

C. Q. 244. On your direct examination, in answer to direct question 139, you state that you came up and Mr. Tallman went down and remained from twenty minutes to half an hour. Now,
3472 do you mean to be understood that during that twenty minutes or half hour you were down in the well with him?

A. No, sir.

C. Q. 245. Then, again, I ask what was Mr. Tallman doing during that twenty minutes to a half hour?

A. Fastening the pump and working on the machinery. I can't give everything that he was doing or I either.

C. Q. 246. Do you know whether or not there was a second pipe of lead or other material inside the inch-and-a-quarter iron pipe which you have described as standing in the ground?

A. I do not.

C. Q. 247. How far was it from the surface of the ground in the bottom of that well down to water?

A. I couldn't say.

C. Q. 248. Will you swear that that dug well, measuring from the surface of the ground to the bottom of the excavation, was not eighteen feet deep?

3473 A. No; I couldn't swear to the depth of the well exactly.

C. Q. 249. Who helped Mr. Tallman put that pipe down into the ground?

A. I couldn't say; I wasn't there when it was put down.

C. Q. 250. You stated on your direct that Wm. Tallman told you how he drove that pipe down, using a cap of wood on the pipe, a hard-wood scantling, and a sledge. Did he not also tell you who helped him do that work?

A. Not that I recollect of.

C. Q. 251. You have stated on your direct that sand and gravel was pumped up from this well during its earlier workings; how much sand or gravel did you ever see that was pumped up there?

A. I never measured the quantity; it settled in the bottom of the trough; it was fine sand & gravel.

C. Q. 252. About how much did you see? Give us your best judgment.

A. Well, I never measured the depth of it in the trough; there might have been a half bushel or a peck or maybe less.

C. Q. 253. How long did sand continue to come?

A. I can't say.

3474 C. Q. 254. You say that you saw the sand in the bottom of the trough; was not the water first pumped into a stone and cement tank before being led to the trough?

A. Not to my recollection.

C. Q. 255. Was there any tank into which the water was pumped before it went to the trough?

A. No, sir; not that I recollect of.

C. Q. 256. When you answer that question do you mean to include all the time while you were acquainted with that well and its operation?

A. Yes, sir; I never knew any cement tank there that I recollect of.

C. Q. 257. Was there any other tank than a stone and cement tank, to your knowledge, into which water was pumped before going to the trough?

A. Yes, sir; it was an old wood tank or trough made of plank, I think; a smallish one; then after that I built a large plank vat, tank, or trough; we called it a trough; I should think the new one was from eight to ten ft. long and from eighteen to twenty inches wide and deep, as near as I can recollect now. 3475

C. Q. 258. Where were these wooden tanks or troughs placed?

A. Placed on the south side, close against the frame; those were for the cattle to drink out of.

C. Q. 259. Then these were not tanks, but troughs for the cattle to drink out of?

A. They might call them tanks, but they were used for cattle to drink out of.

C. Q. 260. Was the water delivered directly from the discharge pipe to these troughs; and, if so, how long did they continue to be so supplied?

A. It was delivered directly into these troughs, but I couldn't tell how long.

C. Q. 261. How coarse was any of the gravel you saw in any of these troughs?

A. Like small shot and some larger, like common shot.

C. Q. 262. Will you give us the diameter of the largest gravel you saw, in parts of an inch?

A. The largest might have been in diameter one-eighth of an inch.

3476 C. Q. 263. Will you swear positively that there was not gravel there of half an inch or of a quarter of an inch in diameter that came from that pump?

A. There was not, that I know of.

C. Q. 264. Will you swear that there was not?

A. Not any nearer than I have; there was not that I know of.

C. Q. 265. Do you know the nature of the soil—the size of the gravel and stones in the bottom of this dug well?

A. I do not.

C. Q. 266. Do you know of what material the piston and valve of the pump were made?

A. I don't know; I never saw the inside of the pump to know what they were made of.

Proceedings were here adjourned to 11.30 p. m., to the same place.

1.30 p. m.—Parties appeared pursuant to adjournment.

3477 C. Q. 267. Why were not the guides shown you — this drawing of Mr. Suggett's—Defendant's Ex., Cortland, No. 6?

A. It was overlooked.

C. Q. 268. In answer to direct question 128 you said you could not tell the names of Mr. Tallman's help. On Thursday last you gave the names of several persons who were then in Mr. Tallman's employ. How were you enabled to do so?

A. I wasn't asked to tell all of it; I couldn't tell all of it; I could some.

C. Q. 269. Question 128, put you by defendant's counsel, was in these words: "State, if you remember, who helped you to raise this windmill frame." Your answer was, "I couldn't tell the names; it was Mr. Tallman's month and day help that he had on the farm." In answer to cross-question 47, which was, "Can you give me the names of any of the men that worked for Wm. E. Tallman by the month in 1859?" you answered, "I can; James Ready, Jefferson Gatman, and a man by the name of Hoffman; I think a 3478 man by the name of James Wickham and a man by the name of George Trowbridge. These are all that I can think of now; there was five or six of them, I think." You have here named five of the five or six. Will you now please explain how, when in answer to direct question 128 you said, "I cannot tell the names," that you were enabled so to do about one month later?

A. I was unabe to tell, the way that I understood it, the names of every one that was there that helped to raise it. When I was asked about the help on the farm I could tell.

C. Q. 270. When you was asked did you not say that it was the help that worked on that farm that assisted at that raising?

A. I did.

C. Q. 271. In answer to direct question 61, which was what Mr.
Wm. E. Tallman did when he went into the well, you said: "He
fastened the pump to this pipe, so it would be stationary and
3479 to suit himself." Is that the best description that you can
give as to what Mr. Tallman did when he went down in that
well?

A. As near as I can recollect now, it is.

C. Q. 272. Are you acquainted with Judge R. H. Duell, of Cortland?

A. Well, slight acquaintance; know him by sight.

C. Q. 273. Have you ever had any conversation with him in regard to this well or the testimony you could give concerning it?

A. Never have, to the best of my recollection; I have not spoke to the man in ten years, that I know of.

C. Q. 274. Have you ever heard any talk that Mr. Wm. E. Tallman would be entitled to and would obtain a patent on this well?

A. Not that I recollect of.

C. Q. 275. Which way did the wheel of the windmill face—
3480 north, south, east, or west?

A. I couldn't say positively which way.

C. Q. 276. Will you swear positively that the crank shaft of that windmill was over four feet long?

A. I wouldn't; I can't tell the length of it; I don't know.

C. Q. 277. In answer to direct question 37 you said, " I saw earth and stone in the bottom of the well." Please describe the stone you saw in the bottom of the well.

A. Gravel, sand, round stones, and stones of different shapes; not very large; there might have been some three inches in diameter.

C. Q. 278. Had this dug well ever been used or ever furnished water previous to the time when this windmill was erected and the pump attached, as you have described?

A. Not that I know of; I think it was the first time I ever saw it when I went there to work.

3481 C. Q. 279. Then am I to understand that you have no
knowledge as to when that well was dug or what, if any,
previous use had been made of it?

A. I have not any previous knowledge.

C. Q. 280. What month was it in which you worked upon this windmill?

A. I couldn't tell exactly. According to my best recollection, it might have been in May or June.

C. Q. 281. Mr. Tallman has testified that the discharge pipe of that pump was of lead and a half inch diameter inside. You have testified that the stream of water coming from it was an inch or three-quarters in diameter. Do you wish to modify that statement, or do you think it to be correct?

A. It is correct, as far as I know. According to my best judgment, it might have been smaller. I cannot be positive.

C. Q. 282. How often have you been in the habit of visiting Cortland village during the past twenty years?

A. I couldn't tell.

3482 C. Q. 283. How long has your daughter resided in Cortland?

A. I could not say. She has lived here at different times. It may be in the neighborhood of eight or ten years; I would not be positive.

C. Q. 284. Have you, during the past twenty years, worked at your trade at any time in Cortland village?

A. A little while; I think a year ago last summer. I was here about a week; that is the only time that I recollect of now.

C. Q. 285. Have you been in the habit of visiting here as often as four or five times a year during that time?

A. I couldn't tell how many.

C. Q. 286. Have you or your family been in the habit of trading in the village of Cortland during those years?

3483 A. They might have traded here a little. We trade all around; are not confined to any place in trading.

C. Q. 287. Have you during that time had any account with any of the merchants in Cortland village?

A. Not that I recollect of.

C. Q. 288. Have you been in the habit of serving on juries in Cortland village?

A. Not for three years back. I served some before that.

C. Q. 289. About what was the weight of the pump which you took in your arms and went down into the well with, which Mr. Tallman, with a trace chain attached, assisted you in lowering and sustaining in place until you went out of the well?

A. I don't know as I took it in my arms.

C. Q. 290. Was the trace chain attached directly to the body of the pump or to the piston-rod?

3484 A. To the body of the pump.

C. Q. 291. What circumstance in connection with the age of your *your* daughter assists you in fixing the date of this well as you have testified?

A. She hasn't had anything to do with it in assisting me to fix the date. She had a bad toe and had it operated on at that age, and she just got so she could wear a shoe on that fall the camp-meeting was.

C. Q. 292. Will you swear positively that she was fifteen years of age at that time?

A. She was fourteen and in her fifteenth year that fall. I am positive of that, as near as I can recollect.

C. Q. 293. Will you swear that you are not mistaken?

A. I will not

C. Q. 294. When you testified on your direct examination the first day how old did you consider her at the date you worked on the windmill?

A. In her fourteenth year.

3485 C. Q. 295. Then why did you say, in that same connection, that you thought she was now thirty-four years of age?

A. I made a mistake in reckoning the time.

C. Q. 296. Does Defendant's Ex. No. 3, Cortland, N. Y., represent correctly a sketch of the dug well and the pump and pipe & timber therein?

A. Not exactly.

C. Q. 297. The discharge pipe was attached to the side of the pump barrel, was it not?

A. To the best of my recollection it was.

C. Q. 298. Please tell me, as near as you can, the number of years you made the windmill before Wm. E. Tallman left Preble?

A. I didn't make the windmill. I made a windmill frame. I don't know how many years it was before Wm. E. Tallman left the farm; it might have been eight or ten years, but I wouldn't be positive.

C. Q. 299. Have you any books of account kept at that time in existence now?

3485½ A. I have not anything that I can refer to; my books were left in — house that I moved from and got destroyed.

C. Q. 300. Will you swear the pipe exhibited to you, which you measured its diameter on your direct examination, was the same pipe that was in the bottom of that well?

A. I will not.

C. Q. 301. Did you see the pump before it was brought to the well?

A. Not that I know. I never saw it until it laid there on the ground.

C. Q. 302. Did you work for Mr. Tallman in 1861?

A. I couldn't say whether I did or not. I can't say that I worked for him any in 1862, 1863, or 1864.

C. Q. 303. Will you swear positively that you worked for him any during the year 1868?

A. No, sir; or 1867.

C. Q. 304. Can you tell who worked for him by the month in either of the years 1861, 1862, or 1863?

A. I could not that I recollect of.

3486 C. Q. 305. Have you talked with Moses Tallman and Jefferson Gatman within the past year several times on the subject of this Tallman well?

A. I don't recollect of saying anything to Gatman, but once, and that was a short time ago. Mr. Tallman and I have talked of the same.

C. Q. 306. Have you any written documents or papers or other memoranda that enables you to fix the date of the camp-meeting?

A. I have no written documents of that.

Cross-examination by complainants here closed.

R. D. Q. 1. Has there been any camp-meeting since this one in question, at Preble?

A. No.

R. D. Q. 2. At any time after the making of this windmill frame and the putting in of the pump, as you testified, did you ever see any water in the dry dug well?

3487 A. Not that I recollect of.

R. D. Q. 3. You have stated the ages of your two daughters—that is, the dates of their births, respectively. State whether or not you obtained said dates from your family records?

A. I did.

R. D. Q. 4. The complainants' counsel asked you if there was any lead or other pipe inside of the pipe which you saw projecting up from the bottom of the dry dug well. State whether or not at the time you removed the plug therefrom, as you have testified, you saw any such inside pipe.

A. I did not that I recollect of.

R. D. Q. 5. You have been asked in your cross-examination in reference to your coming out of the well after you had set the pump on the pipe, and Wm. E. Tallman then going into the well and remaining twenty minutes or about one-half hour, and that
3488 you were down there some of the time with him. State how that was, giving a brief explanation thereof.

A. He let it down with a chain and I steadied it, so that it would rest on this pipe; he held the chain so as to keep it from tipping off sideways; then I went up and took the chain and held it until he went down and took the pump; then I went down on the ladder and stood above him—he was below me—and assisted what I could in putting this pump on.

Redirect examination closed.

R. C. Q. 1. How long were you in the well when you first went down?

A. I went down and right back; it might have been a minute or more; the pump might have weighed in the neighborhood of a hundred pounds; I will not be positive; I don't know what it did weigh.

Testimony of this witness closed.

3489–3492 The witness, Abram Van Denburgh, on having the foregoing evidence read over to him, states that the statement made on page 184, in answer to cross-question No. 28, "that Daniel Van Denburgh hired or rented the hotel about or in the neighborhood of 30 years ago," he was mistaken and wishes to correct his statement so it will read: "It was in the neighborhood of 20 or 21 years ago, to the best of my recollection."

(Signed) ABRAM VAN DENBURGH.

Subscribed & sworn to before me March 22, 1880.

[L. S.] (Signed) EDWARD S. MORE,
Notary Public in & for Cortland Co., N. Y.

3493 United States Circuit Court, District of Iowa. In Equity.

WM. D. ANDREWS *et al.*, Comp'ts, *vs.* GEORGE LELAND, Def't.

MARCH 20, 1880.

JOHN D. F. WOOLSTON, called on behalf of defendant and being duly sworn, testified:

Q. 1. State your name, age, residence, and occupation.

A. My name is John D. F. Woolston; my age is forty-five years September 20 last; residence, Preble, Cortland county, N. Y.; occupation, a farmer.

Q. 2. How long have you resided in Preble?

A. Forty-five years & a little over.

Q. 3. What was your business in the year 1859?

A. I worked in the depot at Preble, N. Y., until February
3494 1st, 1859—the depot of the Syracuse and Binghamton railroad. I was agent for the company.

Q. 4. Do you remember of there being a camp-meeting in Preble in that year?

A. I do; in the year 1859.

Q. 5. Where was that camp-meeting held?

A. On the farm of Moses T. Tallman.

Q. 6. Do you remember of any camp-meeting being held on that farm or in that vicinity since that date?

A. No, sir.

Q. 7. Can you give us the date when the camp-meeting was held on Moses T. Tallman's farm, as you have testified?

A. It was in September, 1859. I was there the 7th of September.

Q. 8. How do you know that you were at the camp-meeting on the 7th of September, 1859?

A. I have it written on my diary, and I recollect of being there.

Q. 9. Do you now hold in your hands that diary?

A. I do.

3495 Q. 10. Was the diary which you hold in your hand kept by you in your own handwriting?

A. Yes, sir.

Q. 11. For what year is the diary for?

A. The year 1859.

Q. 12. Now, read from the diary the entry made September 7th, 1859, if you please.

A. "Helped J. White cover and shingle his barn until supper. Sawed wood and chored. Went to depot in eve and made reports for M. M. Out. Also went down to camp-meeting. Came home with "E" and others. White frost in the morning. Cool and cloudy a. m. Warmer p. m. Mary Woolston married. Thinking."

Q. 13. When next have you an entry on your diary of having attended this camp-meeting?

A. Thursday, September 8th.

Q. 14. Please to give the entire entry in your diary under the date o- "Thursday, September the 8th, 1859."

3496 A. "Helped J. White shingle ¾ of a day. Subscribed for a map and gazetteer of *of* New York. Went to camp-meeting with mother and others in eve. Rec'd ——. Warm and pleasant. Thinking."

Q. 15. When did you make last entry about which you have been testifying—that is, the entry last above given?

A. I usually put the entries down every night; sometimes I wait a day or two, but I usually put it down every night.

Q. 16. Under what date next in your diary do you find any entry about the camp-meeting? Give also the entry in this connection.

A. Friday, September 9th. "Helped J. White shingle and
3497 cut pins ¾ of a day. Sawed wood and done chores. Cleaned up and went to the depot and met Marian on the cars. Went to the camp-meeting in eve with a load. John Shevalier here, and others. Warm and pleasant. Thinking."

Q. 17. When next have you made an entry in your diary in relation — this camp-meeting? Give date and what it says about camp-meeting.

A. "Sunday, September 11th, 1859, went down to camp-meeting with Esther on hand car; staid about an hour; returned."

Q. 18. When next in your diary have you any entry in regard to this camp-meeting? Give date and what it says about camp-meeting.

A. "Monday, September 12th, went to camp-meeting p. m. with a load; returned; done chores; went down in eve with Esther."

Q. 19. When is the last entry you have in your diary about camp-meeting?

3498 A. Wednesday, September 14th, 1859, I have the following entry: "Went down to camp ground with Esther and Marian."

Q. 20. Have you a distinct recollection of this camp-meeting in question independently of and without reference to the said references in your diary?

A Yes, sir; I have.

Q. 21. Give briefly the reasons and other circumstances or reasons by which you remember it.

A. I remember it distinctly, because the lady that is now my wife was there at our house a visiting. I remember also the shingling on this barn and hearing them sing on the camp ground, and it was the fall before I was married.

Q. 22. Were these several entries in this diary of 1859, about which you have been testifying, made at the time that
3499–3508 they bear date, respectively?

A. It is my usual custom to write every night in my diary; sometimes I would let it go two or three days and then write it.

Q. 23. Do the several entries which you have read from your diary state fully the facts which they purport to give?

A. Yes, sir.

Direct examination of this witness is here closed.

(S'g'd) J. D. F. WOOLSTON.

Subscribed and sworn to before me March 20, 1880.
(S'g'd) EDWARD S. MOORE,
Notary Public in & for Cortland Co., N. Y.

3509 CORTLAND, N. Y., *April 7th*, 1880—1.30 p. m.

Parties met pursuant to adjournment.

Present: As before.

HENRY WOODRUFF, being called and sworn for the defendant, testified as follows:

Q. 1. State your name, age, residence, & occupation.

A. Henry Woodruff; aged 60 years; residence, Cortland, N. Y., & occupation, tailor.

Q. 2. How long have you resided in the village of Cortland?

A. 35 years last August.

Q. 3. Did you ever know the complainant, Nelson W. Green?

A. I did, sir.

Q. 4. When did you first know him?

A. I can't recollect. It was a few years before 1861.

3510 Q. 5. Did you know him in the year 1861?

A. I did, sir.

Q. 6. Where did he reside in that year?

A. Nearly opposite Mr. Dibble's factory, in Cortland village. I should think nearly half a mile from my house.

Q. 7. Are you familiar with the construction and the mode of making driven wells?

A. I have seen some driven; partly driven.

Q. 8. When did you first see a driven well made or partly made?

A. I think the *the* first one that I saw was on the fair ground after it was in operation.

Q. 9. When next did you see a driven well made or partly made?

A. One on my own premises.

Q. 10. Where were those premises?

A. In the village of Cortland; a little north of the Cortland House.

3511 Q. 11. Were those premises on the direct road from the Cortland House, in Cortland village, to the premises of said Nelson W. Green?

A. They are.

Q. 12. When was this well made on your premises, as you have testified?

A. It was commenced in the fall of 1861.

Q. 13. By whom was this well made on your premises?

A. Byron Mudge.

Q. 14. What tools did he use in the construction of the same?

A. He used a sledge hammer & a pointed round iron rod first. He finally erected a derrick.

Q. 15. What was the size of this iron rod?

A. I should think it might have been 1½ inches in diameter. It might have been 2 inches. I don't know how long it was. I saw part of it in the ground.

Q. 16. Describe the process of constructing this well made by Mudge, as you have testified.

A. In driving the rod he drove down, or attempted to drive, a gal-
vanized-iron pipe around the rod; he drove the rod, I don't
3512 know how far; the rod broke, caused by striking a large
stone. He then removed the rod, & was obliged to dig
down, I should judge, some five or six feet. I cannot state whether the well was filled up again that fall. Mr. Mudge was ordered away with the regiment which was then forming here. He left it unfinished; returned in 1862; I cannot tell exactly the time; as near as my memory serves me, it was late in the spring of 1862. He then put down a new pipe, which remains in the well until this day; the last pipe was driven with a sledge.

Q. 17. Describe the condition of the earth surrounding this pipe driven by Mudge in 1862 at the time it was so driven.

A. I think—I am quite sure—the excavation made by Mudge the previous year, as I have testified, had been filled up; this pipe was put down in the same place.

Q. 18. Describe the manner of driving this pipe driven by Mudge in 1862.

A. It was driven with a sledge hammer; the pipe was in pieces;
I cannot tell the length of them; they were screwed on; he
3513 used a cap on the top of each piece to drive on.

Q. 19. Describe the construction of the lower end of this pipe driven by Mudge in 1862.

A. It was a perforated point; I think there were long slots cut in the sides of the pipe; as near as I can remember they extended from a foot to a foot and a half from the bottom; I can't tell whether the point was round or square.

Q. 20. What was this pipe made of?

A. I couldn't say whether it was cast or wrought iron; it was iron.

Q. 21. What was the size of this pipe?

A. I should judge it to be 1½ inches or 2 inches; I never measured it.

Q. 22. Was there any material other than the natural earth next to this pipe driven down by Mudge in 1862, as you have testified, after it had been so driven?

A. No, sir; not to my knowledge.

Q. 23. How was water obtained from this pipe?

3514 A. By a pump secured on top of the pipe.

Q. 24. How deep was this pipe driven into the earth?

A. 22 feet, I think.

Q. 25. How far was it driven before it struck water?

A. I think it was 14 feet.

Q. 26. What kind of water was first obtained from this pipe after the pump was placed thereon and operated?

A. It was "rily;" a good deal of dirt in it.

Q. 27. Was this a practical and productive well?

A. Yes, sir.

Q. 28. How long did you or have you used this well?

A. About 18 years; I am using it now.

Q. 29. Was the earth packed tightly about the iron tube driven into the earth by Mudge, as you have testified ?

A. Yes, sir.

3515 Q. 30. Was this pipe—the suction tube of the pump—screwed thereon, as you have testified ?

A. Yes, sir.

Q. 31. Was there any secrecy enjoined or practiced by Mudge or you in the construction of this well ?

A. No, sir ; not that I know of.

Q. 32. State whether or not this driven well made on your premises by Mudge in 1862, as you have testified, was made publicly & was known to your neighbors and other residents of the village of Cortland.

A. It was; quite a number came there while he was driving it.

Q. 33. Were you personally acquainted with said Nelson W. Green at or about the time of the construction of this driven well ?

A. I was.

Q. 34. State briefly how intimate your acquaintance was with said Nelson W. Green.

3516 A. Well, I have done a good deal of work for him for several years—I can't tell how many—previous to 1861. During the time of getting up the regiment he requested me to assist him in drilling squads, preparing for the army ; I saw him quite often ; I made the uniforms for most of the officers of the regiment; he was in my place of business frequently, inquiring how I was getting along with the uniforms; I saw him almost every day until the regiment left.

Q. 35. What regiment was this that you speak of, & what relation did said Green & Mudge bear thereto, if any ? State briefly.

A. The 76th Regiment of N. Y. Vols., raised in Cortland Co. in 1861; Green was colonel of the regiment; Mudge was 1st lieutenant of one of the companies.

Q. 36. When did the regiment leave Cortland ?

A. I cannot give you the date, but I think it was in November or December of 1861.

3517 Q. 37. Did Mudge go with the regiment when it left ?

A. I think he did.

Q. 38. Did said Green know of this driven well made for you, as you have testified ?

A. I suppose that he did from the questions that he asked me.

Q. 39. What questions did he ask you? State fully and at large.

A. He asked me if my well was completed & worked satisfactorily, & I told him it did.

Q. 40. Did you have any other conversation with him about it?

A. He said he was glad to hear it, & was glad it proved a success, for if they (the regiment) should get caught as Gen. Mulligan did they could get water.

Q. 41. Where did this conversation with said Green take place ?

A. This took place in my shop, in Cortland village.

Q. 42. When did it take place ?

A. I think it was after Green returned ; I know it was.

3518 Q. 43. Was it in 1862?

A. I think it was.

Q. 44. Do you know of Mudge or any other person having made any driven wells at or about or shortly after yours was made in Cortland village or vicinity?

A. I cannot tell positively. I heard of wells being put down by Mr. Suggett, but who they were for I don't know.

Q. 45. Were driven wells a public and common thing in the village of Cortland previous to 1864 and after 1862?

A. I think they were.

Q. 46. From 1862 to 1864 state whether or not the only method practiced for obtaining water by the residents & people of the village of Cortland was by these driven wells.

A. It was the only method I knew of.

Q. 47. Was said Green at your house when this driven well was made for you, as you have testified, in 1862, or how did he obtain knowledge that the same was being made or had been made so as to ask you the questions that he afterwards did, as you have testified?

3519 A. I think the first time that he spoke to me about it was nearly opposite my house, when Mudge made the first attempt, in 1861. He asked me how he was getting along with it. I told him that he had rather bad luck. It was very stony there—some large stones. He had broken the point of the rod & had commenced digging down; but Mudge thought he should succeed in it. The Colonel said he thought he would. I don't remember that there was anything more said about it at the time. When I say "Colonel" I mean Colonel Green.

Q. 48. Do you know how said Nelson W. Green knew that afterwards, in 1862, Mudge had made this practical driven well that you have testified to?

A. My impression is that Green said that Mudge had told him.

Q. 49. At the time that said Nelson W. Green had these conversations with you in respect to this driven well of yours, as
3520 you have testified, in 1862, did he then understand or seem to
know how the same had been made and its process of construction, how operated and used?

A. Yes, sir.

Q. 50. Who paid for this driven well, to whom was the payment made, and what was the amount thereof?

A. I paid it to Mr. Mudge; I think he charged me twenty-two dollars.

Q. 51. You have spoken of a well at the fair grounds. Did you ever have any conversation with the said Nelson W. Green with refence to the same? If yea, state how it arose & where it took place.

A. I think it was the time that I met him near my house on the sidewalk, when he asked me how Mudge was getting along with
my well. He said he thonght he would succeed with
3521 mine, for the one on the fair ground work nicely, or words to
that effect.

Q. 52. Had you at that time heard of an alleged experiment made by Mudge & other officers of the said regiment at or near said Green's house for the purpose of trying to obtain water?

A. I don't recollect of hearing anything about it.

Q. 53. Did said Green in any of the conversations with you say by whom the well at the fair ground was made?

A. Yes, sir; Mr. Mudge.

Q. 54. In any of the conversations that you had with Green in 1861 & 1862 did he say to or tell you who was the inventor of this driven well, so called?

A. I don't remember that the Colonel ever said anything to me about it.

Q. 55. In 1861 & 1862, in the village of Cortland & vicinity, to whom was given the credit of being the inventor of the so-called driven well?

3522 A. So far as my knowledge extends, it was Mudge.

Q. 56. Did you see said Nelson W. Green in and about the village of Cortland often in 1862 and 1863? If yea, state about how often and where you so saw him.

A. Well, I can't tell how often; I saw him frequently; I don't remember about 1863; I think it was in 1862 that I saw him; the dates I cannot remember; he was in my place of business quite often; I saw him on the street.

Q. 57. At the time of the conversations at your shop in 1862 with said Nelson W. Green did you tell him or was it talked over between you as to how Mudge completed and made this driven well for you so as to make it a success—that is, was the details of its construction and how it differed from his (Mudge's) former attempts then and there explained?

3523 A. I don't think there was anything said about his former attempts that I recollect of. He said, "I was the first suggester," in speaking of the well—the driven well; I can't tell you. I don't know that I have any further answer to make.

Q. 56. Was it at any of these conversations in 1862 talked over between you and Green as to how Mudge made this well?

A. I don't recollect anything of the kind.

Q. 57. How large a place—that is, what was the population of the village of Cortland in 1861 and 1862?

A. I think it was in the neighborhood of three thousand.

Q. 58. What have you used this driven well for, made by 3524 Mudge for you in 1862, since the time of its construction?

A. Everything that the family would use it for; watering my horse and cow.

Cross-examination by Mr. HURLBUT:

C. Q. 59. When did you first know Nelson W. Green?

A. I knew him a few years prior to 1861. I could not tell how long. I done work for him.

C. Q. 60. Tell me as near as you can.

A. Perhaps two or three years. I could not say.

C. Q. 61. On what street in this village did he reside in 1861?

A. Main street, in the north part of the village, on the road to Homer.

C. Q. 62. Where was the well referred to, on the fair ground, put down?

A. It was on the south part of the ground. I should think some three or four rods from the front fence and nearly that from the south line, as near as I can remember.

C. Q. 63. State the year and month that that well was put down.

A. It was in 1861; the month I could not tell. I think it was in the fall.

3525 C. Q. 64. Have you been examined before in the driven-well patent cases as a witness?

A. In this driven well I have; yes, sir.

C. Q. 65. State when and in what cases.

A. First, in an interference case between Green, Mudge, and Suggett, in 1866 or 1867; and, secondly, in the U. S. circuit court, district of New Jersey, wherein Benjamin F. Green was complainant and Phineas M. French, defendant, March 19th, 1880.

C. Q. 66. Do you remember that testimony was taken here in Cortland for several months in a suit in equity wherein William D. Andrews and others were complainants and Mr. Carman was defendant, in 1872, the subject of said action being this driven well?

A. I remember something about the time. I could not tell the year. I remember hearing that *that* there was such a thing.

C. Q. 67. Was it not generally known here at the time that testimony was being taken?

A. I could not tell you.

3526 C. Q. 68. Do you know of your own knowledge who put down the driven well you have referred to on the fair ground?

A. I do not.

C. Q. 69. Then you did not see it put down, did you?

A. No, sir.

C. Q. 70. How many driven wells can you now positively locate as having been put down prior to yours in 1862?

A. I could not tell.

C. Q. 71. Can you locate a single well positively, except the one on the fair ground, that you are now able to swear positively was put down prior to yours?

A. No, sir.

C. Q. 72. Please give me the exact location of your driven well in reference to your premises and buildings thereon.

A. My house is situated on the east side of the road. My barn stands on the north line of my lot, perhaps 50 feet from the upright part of the house; a wood-house and wing is between the upright part and the barn. The well is on the south side of the wing and east side of the upright, about six feet from the wing and
3527 about the same distance from the upright. The upright extends about 18 feet south from the wing.

C. Q. 73. How long did the well remain in the condition it was when put down in 1862? And if any changes have been made state what and when.

A. I cannot say whether I brought it into the house that fall or not. There was a trench dug 2½ feet deep from the pipe to the cistern, passing through the cistern wall, and a pipe was put in the ditch, connected to the pipe of the well by an elbow. It ran along in the ditch to and through the cistern wall, where there was another elbow. It then ran up to the sink in the kitchen. The sink is directly over the cistern. The pump was then screwed on the pipe. The trench was afterwards filled in.

C. Q. 74. Were you present all the time Mudge was constructing that well in 1862?

A. I was not, nor was I present all the time he was attempting to construct one the fall before.

3528 C. Q. 75. How long was Mudge engaged in constructing the well in 1862?

A. I could not tell you. He was at it some two or three days. He did not confine himself closely.

C. Q. 76. State the length of time he was actually engaged, as near as you can.

A. I can't tell positively. I should think a couple of days, certainly.

C. Q. 77. And was he at work continuously?

A. No, sir.

C. Q. 78. What portion of the time was he away?

A. I could not tell you.

C. Q. 79. Did you apply to Mudge or Mudge to you for this well?

A. Mudge to me.

C. Q. 80. Do you know positively whether Mudge was a commissioned officer in the 76th regiment?

A. All I know I made his coat as first lieutenant. I saw him in the company.

C. Q. 81. How many joints or lengths of pipe were used in the construction of the well?

A. I could not tell.

C. Q. 82. Were there round holes and slots at the lower end of the pipe, next to the point?

3529 A. I cannot remember whether there were round holes or not. I cannot remember. I am quite sure there were slots.

C. Q. 83. Who came to your house, that you now remember, during the time that Mudge was constructing the well?

A. I think that Stillwell & Wesley Benjamin, Henry Rorabach & Mr. James Suggett. I cannot now remember any more. My brother, Samuel Woodruff, was there.

C. Q. 84. When did Mr. Green request you to assist him in drilling squads?

A. I cannot remember the first time. It was when the regiment was forming.

C. Q. 85. When did you first have a conversation with Nelson Green in regard to your well? I mean state the time.

A. I cannot state the time. It was soon after Mr. Mudge commenced it.

C. Q. 86. State the time as near as you can.

A. I should think it was some time in September. It might have been as late as in October.

C. Q. 87. How many different conversations do you now remember distinctly having with Nelson W. Green on that subject?

A. I don't remember but twice.

C. Q. 88. State where the first was.

3530 A. The first was on the sidewalk, just this side of my house.

C. Q. 89. The second?

A. In my shop.

C. Q. 90. Who, if any one, was present during the first conversation?

A. Not any one.

C. Q. 91. Second?

A. I cannot remember that there was any one; there might have been.

C. Q. 92. What time of day did the first conversation —?

A. I think it was between sundown and dark, and the second one was in the evening, I think.

C. Q. 93. Did you go with this regiment or was you in the service?

A. I did not go and was not in the service.

C. Q. 94. In giving the conversation you had with Colonel Green do you give the language that was used by him? Please answer directly.

A. As near as I can recollect.

C. Q. 95. Will you swear that you have given the exact words?

A. As near as I can recollect.

3531 C. Q. 96. Will you swear positively that you have given the exact words?

A. As near as I can recollect.

C. Q. 97. Can you swear to it positively?

A. I have given the answer as positively as I can.

C. Q. 98. I understand by your last answer that you will not swear positively that you have used the identical words that were used in that conversation; am I correct?

A. As near as I can remember; I cannot get it any nearer.

C. Q. 99. How did the interview between you and Colonel Green occur on the sidewalk?

A. He was coming down town & I had just come out of my house.

C. Q. 100. Was it a casual meeting?

A. Yes, sir.

C. Q. 101. Did you stop to talk or did the conversation take place while you were coming down town?

A. We stopped.

C. Q. 102. Did you finally come down town with him?

3532 A. No, sir; I went back into the house for something.

C. Q. 103. How long did you remain in the house?

A. I cannot tell you anything about it.

C. Q. 104. Did you come down town that evening?

A. I think I did; I usually come down to my place of business after tea.

C. Q. 105. What did you go into the house for?

A. I cannot remember.

C. Q. 106. How long were you talking with Colonel Green in front of the house?

A. A few minutes.

C. Q. 107. Did you talk on any other subject besides driven wells?

A. Not that I remember of.

C. Q. 108. Will you swear that you did not?

A. No, sir.

C. Q. 109. Had you seen Colonel Green before that day or after that?

A. I could not tell you.

By mutual consent proceedings were here adjourned until 8.30 o'clock a. m., April 8th, 1880, at the same place.

3533-3535 8.30 a. m., April 8th, 1880.—Parties met pursuant to adjournment.

Present: As before.

Cross-examination of HENRY WOODRUFF by Mr. HURLBUT resumed:

C. Q. 110. State what was said first by Mr. Green on the occasion referred to on the sidewalk.

3536 & 3537 A. I think the first question he asked me was how Mudge was getting along with the well. I told him he had had rather bad luck; it being very stony, he had broken the point of the rod and was then digging down. He thought he would succeed; the Colonel said he would.

C. Q. 111. Is that all the conversation that you now remember that took place between you and Colonel Green on that occasion?

3538 A. He said he thought he would, as the one on the fair ground worked nicely, or words to that effect.

C. Q. 112. Now, have you stated all that was said on that occasion that you remember?

A. Yes, sir.

C. Q. 113. What was first said by Colonel Green in the second conversation you referred to?

A. He asked me if my well was a success.

C. Q. 114. What reply did you make to it?

A. I told him it was.

3539 C. Q. 115. What then did he say?

A. He said he was glad of it, as they might be caught as General Mulligan was.

C. Q. 116. Anything more said on that occasion by either of you that you now remember?

A. Not that I remember.

C. Q. 117. How long was Green in your shop at that time?

A. I cannot tell you.

C. Q. 118. Did he make known any business with you at that time?

A. Not that I remember of.

C. Q. 119. Did you converse with him at that time on any other subject?

A. I don't know; he was in frequently.

C. Q. 120. It was a casual meeting, was it?

A. Yes, sir.

C. Q. 121. How often will you swear positively that the Colonel was in your shop in 1862?

A. I cannot tell you.

C. Q. 122. Did he have any business with you in 1862?

A. I don't know as he did in 1862; I could not tell with-
3540 out referring to my book.

C. Q. 123. Mudge, whom you have spoken of, is a relative of yours by marriage, is he not?

A. Yes, sir; his wife and my wife are cousins; his wife is now dead.

C. Q. 124. Will you swear positively that the second conversation referred to in the testimony with Colonel Green occurred in 1862? Please answer directly.

A. I think it was; I wouldn't be positive.

C. Q. 125. You say you think driven wells were in public use in the village of Cortland between the years 1862 and 1864. Please state what wells you will swear positively *that* were in public use between those dates, of your own knowledge.

A. Well, I don't know that I remember positively. I heard that Mr. Suggett was putting them down. I cannot remember any particular one.

C. Q. 126. You say that in 1861 and 1862, so far as your
3541 knowledge extends, the credit of this well was given to
Mudge?

A. Yes, sir.

C. Q. 127. Please state with whom you will now swear positively that you talked with between those dates that gave the credit to Mudge.

The witness asked, "Do you refer to the invention?"

Counsel for complainant- states that he refers to whatever the witness referred to in making his answer on the direct examination.

A. I cannot swear positively to any one except Mudge.

C. Q. 128. And he (Mudge) stated to you that Colonel Green was the first suggester, did he not? Answer directly.

A. He did.

C. Q. 129. Do you swear positively that Colonel Green stated to you who made the well on the fair ground?

A. He merely alluded to the well; he did not say who made it; I don't think he mentioned any names.

3542 C. Q. 130. Have you paid a royalty on your driven well?

A. I have a receipt for five dollars from complainants' agent (Mr. Dibble), excepting the complainant Parsons.

Cross-examination closed.

Redirect examination by Mr. **Suggett**:

R. D. Q. 131. Have you any interest, directly or indirectly, in this action?

A. None whatever.

R. D. Q. 132. You stated in your direct examination yesterday that a galvanized iron pipe was used by Mudge, surrounding the rod, at his first attempt at your house in 1861. State what became of that pipe, and whether or not any use was made of it in completing the well in 1862.

A. The pipe was taken out, but was not used in 1862.

R. D. Q. 133. In making the well in 1862 was any dirt removed upward or was it forced aside laterally by the driving of the pipe?

3543 A. No earth removed that I know of; the pipe was put down in the same place.

R. D. Q. 134. You stated to the defendant's counsel this morning that you had been thinking over since last night as to the time the well was brought into the house, and that you desire to make some explanation in regard to it; please do so.

A. I was mistaken in the time; it was longer than I at first thought; I think it was in 1865.

R. D. Q. 135. You stated to defendant's counsel this morning that you had been thinking, since your examination last night, as to the time when Mudge completed the well in 1862. If you have any explanation to make in reference thereto, please make them.

A. I think it was in October, instead of late in the spring; October of 1862.

Redirect examination closed.

3544 Recross examination by Mr. **Hurlbut**:

R. C. Q. 136. Will you swear positively that you have given the conversation between yourself and Green here in substance the same as you detailed it on the interference case?

A. I will swear positively that I have not with any one.

R. C. Q. 137. Evidently, Mr. Woodruff, you do not understand my question. Do you mean to be understood as testifying that you were not asked during your examination in the interference case to detail these conversations that you have had with Green, as you have testified to here?

A. I don't remember that; I cannot say.

3545 R. C. Q. 138. On whose behalf were you called as a witness in that interference case?

A. I do not remember.

R. C. Q. 139. Have you given the conversation with Colonel Green on this examination in substance the same as you did on the examination March 19th?

A. I think I have in substance; the same questions were not asked me there.

R. C. Q. 140. Who did you first tell that you had these conversations with Colonel Green?

A. I cannot tell you.

R. C. Q. 141. Who do you now remember first stating it to?

A. I cannot tell you.

R. C. Q. 142. Have you not stated it to Mr. Suggett, defendant's counsel?

A. I have not, sir.

R. C. Q. 143. Have you ever stated it to a person prior to your examination here?

A. Only in my testimony. I don't remember stating it elsewhere.

3546 R. C. Q. 144. You say only in your testimony. In what suits or proceedings?

A. I might refer to the trial here in March.

R. C. Q. 145. Do you refer to the trial here in March? Please answer directly.

A. Yes, sir; I testified to some of the conversations with Colonel Green at the trial here in March, I think.

R. C. Q. 146. Did you then testify to all the same conversations that you have now testified to?

A. It might vary a little in some respects or substance.

R. C. Q. 147. How did you discover the mistake that you made, in testifying that the well was put down by Mudge in the spring of 1862?

3547 A. In thinking the matter over, it was quite cool weather. I remember of thawing out my pump with hot water.

R. C. Q. 148. Have you not talked with defendants or seen or heard read or the contents stated of the evidence that you gave in March on that subject?

A. No, sir.

R. C. Q. 149. How did you discover the mistake that you made as to the time the pump was brought into the house?

A. By referring to Mr. Winters' accounts. He done it for me.

R. C. Q. 150. Did not suggestions of defendant's counsel aid you in any manner in discovering that mistake?

A. I told him this morning the mistake.

R. C. Q. 151. Will you swear positively that Nelson W. Green ever stated to you that he knew, for Mudge had told him, that he, Mudge, was putting down that well for you? Please answer directly, yes or no.

A. I cannot tell you.

Recross-examination closed.

3548 2d redirect examination by Mr. SUGGETT:

2d R. D. Q. 152. Question 151 and answer read to witness. Please state your best recollection as to what he told you.

A. I cannot remember that he ever said to me that Mudge ever said anything to him.

(Signed) H. WOODRUFF.

Subscribed and sworn to before me this 8th day of April, 1880.
[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

Adjourned, by consent, until 1.30 o'clock p. m. at same place.

APRIL 8TH, 1880—1.30 p. m.

Parties met pursuant to adjournment.
Present: As before.

3549 ISAAC M. SEAMAN, duly sworn for the defendant and examined by Mr. SUGGETT, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. Isaac M. Seaman; age, 63; residence, Cortland, N. Y., and occupation, insurance agent.

Q. 2. How long have you resided in the village of Cortland?

A. 39 years last December.

Q. 3. Where did you reside in the year 1862?

A. Corner of Mill & North Church streets, in this village.

Q. 4. Did you then know Byron Mudge?

3550 A. I did.

Q. 5. Do you know the method of constructing and making driven wells, so called? If yea, give a brief specification of how you understand they are constructed.

A. They are constructed by driving a wrought-iron pipe into the ground and screwing a pump to the top of the pipe.

Q. 6. When did you first see a driven well made?

A. I think it was in October of 1862; in the fall of 1862, at any rate.

Q. 7. For whom, where, and by whom was this driven well constructed?

A. For me, on my premises that I then occupied, by Byron Mudge.

Q. 8. Give a detailed specification of how that well was constructed.

A. An iron rod was drove into the ground some ten or twelve feet; the size nearly that of the pipe—not exactly; I do not know whether it was exactly the size of the pipe or not; the rod was then withdrawn and a wrought-iron pipe with an iron plug fastened into one end; the pipe perforated to the distance of 18 or 20 3551 inches perhaps from the plug, and the perforated end driven into the hole made by the rod; it was driven deep enough to show the required depth of water when tested; I don't know exactly how far; then a cast-iron pitcher pump was screwed on the top of this pipe and operated and water drawn satisfactorily.

Q. 9. In the year 1862 did you have another well driven for you?

A. I did.

Q. 10. Who done that?

A. Byron Mudge.

Q. 11. State where it was & give a brief description of how it was constructed.

A. It was at a house which I was then building about eight rods north of where the first well referred to was driven; its construction was as follows: Briefly, the same as the one above described.

Q. 12. Did many people come to see these wells?

3552 A. Yes; that is to say that more people came to see it than would to an ordinary well; it was a novelty.

Q. 13. Was there any secrecy enjoined or practiced by Mudge or you in reference to the making or using of these wells?

A. No, sir.

Q. 14. Were they made publicly?

A. Yes.

Q. 15. Were these wells practical and productive wells?

A. They were.

Q. 16. For what purposes were they used?

A. Procuring water for the use of house and barn—whatever I wanted to use well water for.

Q. 17. About what was the depth of these wells?

A. I think about fifteen or sixteen feet from the surface of the ground.

Q. 18. Can you fix any date positively in 1862 that you know was after the construction of these two wells by Mudge?

A. Yes, sir.

Q. 19. How do you fix the date?

A. The date of payment for the wells.

3553 Q. 20. Have you any memorandum or account of the payment?

A. I have.

Q. 21. Will you now produce it?

A. I will.

Witness produces an account book.

Q. 22. Read the entry you have.

A. Witness reads as follows: "November 15th, 1862," under the head of "cash paid." "B. Mudge, for wells, $30.00."

Q. 23. Was that entry made at the time it bears date?

A. I could not say that it was made on the same day; presume it was. In fact, I know it was, from the fact that I kept my bank account in this book at the same time and had an entry of cash received and paid to the bank on the same day.

Q. 24. Is this entry in relation to these wells in your handwriting?

A. It is.

Q. 25. Do you know the complainant, Nelson W. Green?

A. I have known him.

Q. 26. When did you first know him?

A. It was previous to 1862, but I cannot tell how long previous. I was acquainted with him at that time.

3554 Q. 27. Where did he live at the time Mudge made these driven wells for you?

A. In Cortland village, in the house opposite Mr. Dibble's carding-mill.

Q. 28. How far was the residence of said Green from where these wells were made?

A. Well, I should say a little less than half a mile.

Q. 29. Did you see Green frequently at that time; if yea, where?

A. I saw him at his house, on the street, and on the camp ground of the 76th regiment, in this village.

Q. 30. At or about the time or after were driven wells made substantially as you have described yours were made in the village of Cortland, and was this method then used almost universally in said village?

A. I have very good reason to suppose it was so.

Direct examination closed.

Cross-examined by Mr. HURLBUT:

3555 C. Q. 30½. Do you know whether Green knew anything about your wells or not?

A. I don't know.

C. Q. 31. Have you ever been a witness in any of these driven-well cases or proceedings?

A. Yes.

C. Q. 32. Before this time; and, if so, when?

A. Only once before this time, and when I cannot recollect; it was several years ago.

C. Q. 33. Please state the location of the first well you have described in reference to your house.

A. On the east side of the north part of the house; my house was on the northwest corner of Mill and North Church streets, so that the well was on the side next North Church street.

C. Q. 34. How far from the house?

A. As near the wall (underpinning) as we could work; the pump was in the house; there was an elbow in the pipe under ground below freezing point, from which it went through the wall to
3556 the inside of the house and then up to the pump in the kitchen; the pump or well was not visible from the street.

C. Q. 35. Describe the location of the second well.

A. The second well was on the south side of the house; the last I can remember of that pump being worked it was out-of-doors, perhaps three or four feet from the house; the house was on the west side of North Church street; not on a corner.

C. Q. 36. Church street is about how many rods east of Main street in this village, and do they run parallel?

A. Perhaps 40 rods, & they run parallel.

C. Q. 37. From Colonel Green's residence at that time to the business street and business part of Cortland village the nearest and natural route would be Main street, would it not?

A. Yes.

C. Q. 38. Can you name a single person that saw either of these wells at your house, aside from your family, during the years 1862, 1863, and 1864?

A. I don't know for certain that I could. I would not
3557 want to swear to the name of a single individual.

C. Q. 39. You say these wells were made public. They were not made public any more than any other improvement on your property of that extent and magnitude, were they—that is, no extra pains was taken by you to circulate and publish the fact?

A. Not that I aware of.

C. Q. 40. Do you know whether the date you have referred to in your cash book is the date of the completion of those wells?

A. I do not. I only know one thing, that it was after they were completed.

C. Q. 41. What position did Green hold in the regiment mentioned in 1861?

A. I am not quite sure that he held any in 1861.

C. Q. 42. Can you name any person and locate the well that was made substantially like yours, as testified to, in 1862 and 1863 and be positive of your answer?

A. Yes.

C. Q. 43. Do so.

A. It was at the building of Peck & Mudge, a planing-mill,
3558 &c. I think one was in operation there at the time I had mine made. I cannot swear positively as to any others.

Cross-examination closed.

Redirect examination by Mr. SUGGETT:

R. D. Q. 44. What instruments did Mudge use in driving your wells? Please describe them.

A. An instrument called a pile-driver; a frame something like twenty feet high; a heavy weight was drawn up to the top and an apparatus at the *the* top to hold it there, and the weight was released by a cord in the hands of the operator, at his pleasure, standing on the ground; the rod and the pipe were both driven by the weight so released.

R. D. Q. 45. When was the pipe brought into the house?

A. At the time it was driven; it was a part of the consideration.

Examination of the witness closed.

(S'g'd) I. M. SEAMAN.

Subscribed & sworn to before me this 8th day of April, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

3559 Proceedings were here adjourned to 9 o'clock a. m., April 9th, 1880, at the same place.

APRIL 9TH, 1880—9 o'clock a. m.

Parties met pursuant to adjournment.
Present: As before.

HENRY BATES, being called for the defendant and duly sworn, was examined by Mr. SUGGETT and testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. Henry Bates; age, 52 years; residence, Cortland, N. Y., and occupation, grocery clerk.

Q. 2. How *how* long have you lived in Cortland?

A. Always.

Q. 3. What was your business in 1861 & 1862?

A. House painting.

Q. 4. Did you own real estate in Cortland in 1861 and 1862?

A. I did.

3560 Q. 5. Where was it situated?

A. I don't remember whether it was on North Main or Church street at that time.

Q. 6. Did you own premises on North Main street at or about that time?

A. Nearly that time, I think.

Q. 7. When did you purchase the premises on North Main street?

A. Witness asks for ten minutes in which to produce his contract for the house, which is conceded, and witness produces same, which is a contract for building a house on North Main street on those premises.

Q. 8. When was the house built?

A. In 1863; it was commenced in April and completed in August or September.

Q. 9. Did you then know the complainant, Nelson W. Green?

A. I did.

Q. 10. Where did he reside, with reference to this house that you built in 1863?

A. On the same street, a little northwest of me; I should say forty rods away.

Q. 11. Was there any houses between yours and his?

3561 A. Not on that side of the street.

Q. 11½. Are you familiar with the construction of driven wells as made at present?

A. Some.

Q. 12. Please describe how you understand they are constructed.

A. Some take a bar of iron and drive it down; if the bar of iron is long enough they generally drive it down until it strikes water; then they put in a gas pipe with a point attached to it and slots cut in the lower end of the pipe and put a common suction pump on the upper end of the pipe; that forms the well.

Q. 13. Did you have a driven well made on your premises on North Main street the next east of said Nelson W. Green's premises in the year 1863?

A. There was a vacant lot between the houses; there was a well made there.

Q. 14. Who made that driven well?

A. Mr. Mudge; it was in the contract for the house.

Q. 15. Please describe fully and at large the construction
3562 of that driven well, commencing with the first operation and proceeding naturally to the finishing of the same, giving at the same time a description of the tools, machines, and instruments used in making it and the materials of which it was made.

A. I was not there when they first commenced to make it. They had a frame-work up; I cannot describe it exactly. They got through using the frame just as I got there; they took the frame away; they had the well nearly down; they had to drive it a little further with a sledge; then they put the pump on and pumped the water. It was made of gas pipe with a common suction pump attached.

Q. 16. What was the size of the gas pipe—that is, about the size?

A. Inch and a quarter or inch and a half.

Q. 17. Was your house up or any part of it when the driven well was made?

A. There was a portion of the cellar built.

3563 Q. 18. Was this frame that you have described known as a pile-driver?

A. I could not say; I do not remember how it was.

Q. 20. Could a person passing along the street at the time of the construction of this driven well see the same?

A. They could till the frame of the house was up.

Q. 21. About how far was the well from the sidewalk on the street?

A. From the walk on the other side of the street about six rods, where the people travelled mostly.

Q. 22. How was the pump attached to the pipe?

A. Screwed on with a coupling.

Q. 23. Was the pump, after completion, visible on the street to passers-by; and, if so, how long?

A. I think two or three weeks.

Q. 24. Did any of your neighbors or the people of Cortland come to the building and see this driven well?

3564 A. Yes.

Q. 25. Did they so come before and after the erection of the building?

A. Yes.

Q. 26. Tell, if you can, about how many came?

A. I can't say how many.

Q. 27. Name, if you can, some of those who came.

A. There was Horace Dibble, Daniel Smith, Allen Smith, Thomas Perkins, Colonel Green, Israel Van Hoesen, Daniel Van Hoesen, Judge Smith, Timothy Rose, Stephen R. Hunter, Harmon Hubbard, James Freeman, William O. Barnard, Jedediah Barber, of Homer; Halsey Collins; well, a good many others.

Q. 28. How many times was Colonel Nelson W. Green there? State briefly.

A. I could not say how many times.

Q. 29. What were the objects of these visits to your house by said Nelson W. Green?

3565 A. I could not say more than to visit the premises.

Q. 30. Do you know whether or not said Nelson W. Green saw this driven well?

A. I do.

Q. 31. Why?

A. Because we used it and talked about it.

Q. 32. State how you used it.

A. To pump water from.

Q. 33. Did said Nelson W. Green pump water from it?

3566 A. He did.

Q. 34. State what was said between you and said Green.

A. I cannot remember all that was said.

Q. 35. State what you remember was said.

A. Well, in looking over the house we come to the well and cistern pump, which came up in a sink—the well pump on one end of the sink, the cistern pump on the other; I showed him my arrangements for getting water there; I told him how I pumped the well water from one side and cistern water from the other side; we pumped water—he did and I did, too; he said that was a good arrangement or a good thing; I cannot say which; one or the other; he spoke about which was the well and which was the cistern when we first started in; both were clear water; that is all I remember about the well and pump business just now.

Q. 36. Did said Green pump water from this driven well at that time?

3567 A. He did.

Q. 37. Did said Green know at that time that this was a driven well?

A. We talked about its being a driven well.

Q. 38. What did you say about its being a driven well?

A. I don't remember now what was said.

Q. 39. Will you swear positively that it was in the year 1863 that these conversations with Green took place and he pumped on this driven well, as you have testified? If yea, give your reason.

A. It was in the year that I built the house.

3568 Q. 40. In what year was the house built?

A. 1863.

Q. 41. Do you now hold in your hand the contract for building the house?

A. I do.

Q. 42. What is its date?

A. Contract was made the 5th day of March, 1863.

Q. 43. After the pipe was driven into the earth, in the construction of this driven well, was the earth packed against and in contact with said pipe?

A. It set tight to the pipe.

Q. 44. After the pump was screwed onto this pipe, as you have testified, did the said tube or pipe then become the suction tube of the said pump?

A. It did.

Direct examination closed.

Cross-examination by Mr. HURLBUT:

C. Q. 45. When and in what suits and proceedings have
3569 you given testimony before in relation to this driven well with reference to this patent, if any?

3570 A. I cannot tell the time now; I don't remember the parties' names.

C. Q. 45½. Were you examined in what is known as the interference case, wherein Colonel Green, James Suggett, and Byron Mudg were parties?

A. I cannot tell.

C. Q. 46. Were you examined in what is known as the Carman case in 1872 or thereabouts?

3571 A. I don't remember the parties now.

C. Q. 47. Haven't you been examined at least three or four times on this subject?

A. Yes, sir.

C. Q. 48. In whose handwriting is the contract which you hold in your hand & referred to on your direct examination?

A. I think A. P. Smith's.

C. Q. 49. Who dictated to him the terms of that contract, if any one?

A. I did.

C. Q. 50. Will you produce the same and read to the notary, that he may take down what is stated therein in regard to this well?

A. I will.

Witness reads as follows from contract:

"One sink & cistern with pump, one well with well pump. The cistern is to be covered with stone & is to be 6 feet deep and six feet in diameter at the bilge. The well is to be an artesian well and shall have two feet of water in low water. Under the sink there is to be a cupboard with two doors. There is to be a
3572 cupboard above the sink with four doors, two on each side."

C. Q. 51. Then, these wells were called artesian wells by you sometimes, were they not?

A. Well, that is the way the contract reads; I don't know whose suggestion that was that he should put it in that way; that is the way it was called so there.

C. Q. 52. I did not ask you how the contract read nor at whose suggestion it was put in in that way, but simply whether you have not called them artesian wells *at* sometimes. Will you please answer my question directly?

A. I don't know that I ever did.

C. Q. 53. Will you swear positively that you never have?

A. No, sir.

C. Q. 54. You have named several persons, and state that many others came to your building and saw this driven well; will you swear positively that all that you have named were there in 1863 and saw this driven well?

A. Yes, sir.

3573 C. Q. 55. Can you name any others than you have that you will swear positively saw the well there in 1863? If so, do so.

A. I don't think of any others that I saw there now.

Proceedings were here adjourned until 1.30 o'clock this p. m., at this place.

1.30 o'clock p. m., April 9th, 1880.—Parties met pursuant to adjournment. Present: As before.

Cross-examination of Henry Bates resume-:

C. Q. 56. Please name the persons that you now recollect and are able to swear positively that saw your well in 1863.

A. Stephen R. Hunter, Horace Dibble, William O. Barnard, Daniel Smith, Allen B. Smith, Israel Van Hoesen, Harmon Hubbard, Jedediah Barber, A. P. Smith, Daniel Van Hoesen, Thomas Perkins; I don't remember now how many more—a good many more.

3574 C. Q. 57. Did not those men that you have last named visit your premises for the purpose of looking at your house?

A. I suppose they did.

C. Q. 58. And did you not take them through and show them the different rooms of the house and talk about its construction and convenience?

A. I did.

C. Q. 59. Do you now distinctly remember what was said by Daniel Smith, if anything, about that well while he was there in 1863?

A. I do not.

C. Q. 60. The same question as to Harmon Hubbard.

A. I do not.

C. Q. 61. I ask you the same question in regard to each of the persons named in the answer to cross-question 56, which answer the notary is requested to read.

A. I do.

C. Q. 62. Name the persons mentioned in that list that you remember what said by them.

A. Stephen R. Hunter, Thomas Perkins, Israel Van Hoesen, Jedediah Barber; that is all I can remember now—that I can remember the conversation of in that list.

3575 C. Q. 63. Did either of the persons you have mentioned work on the building?

A. No, sir; except Van Hoesen.

C. Q. 64. Are you able to give the exact conversation fully that occurred between you and the persons stated in answer to cross-question 62; I mean the conversation that occurred there in relation to the well in 1863?

A. I am not fully.

C. Q. 65. How many different times were those persons named in cross-question 62 at your house in 1863, when the well was there?

A. I could not say.

C. Q. 66. You say Colonel Green was there; do you know what his business was?

A. I don't remember now.

C. Q. 67. Was your house completed at the time?

A. No, sir.

C. Q. 68. In what State was it in at the time?

A. I could not say.

C. Q. 69. Was not the carpenter work substantially completed?

A. Not wholly.

3576 C. Q. 70. What was unfinished as to the carpenter work?

A. I could not say what there was yet to be done.

C. Q. 71. Was it substantially completed?

A. Well, I could not say; he was there at different times.

C. Q. 72. What were you doing at that time—I mean the time that you referred to on your direct examination, when Colonel Green examined your house?

A. Painting.

C. Q. 73. Was it a casual meeting on his part?

A. I think it was.

C. Q. 74. Did you show him the different parts of your house and rooms of the same?

A. I did.

C. Q. 75. Did you talk about the convenience of the rooms and the arrangement of the house?

A. I did.

3577 C. Q. 76. You say you have a cistern pump there. Did either of you pump with that, that you now distinctly remember?

A. We did.

C. Q. 77. A quite a number were in your house at about that time, casually, as you state that Green was, for the purpose of looking it over and the arrangement of it, and you showed them through the house and the rooms and talked about the conveniences & pumped with those pumps. Is not that so?

A. Yes, sir.

C. Q. 78. Will you swear positively that in the conversation that you have testified as having had with Green that you have not got any of the conversations that you had with others about that time confused with it?

3578 A. I will.

C. Q. 79. Will you swear positively that you can give the exact conversation had with Green at that time?

A. No, sir.

C. Q. 80. Did you take him upstairs into the chambers of your house?

A. I did.

C. Q. 81. Please state what was said by him while you were up there in regard to the chambers, if anything.

A. I could not state now; I do not remember.

C. Q. 82. Please state if you now remember of anything that was said by you while up there.

A. I do not remember.

C. Q. 83. This well was in the kitchen, was it not?

A. It stood in the partition between the kitchen and wood-house.

C. Q. 84. Describe just how it was located, where, & the arrangement of the pump in reference to the room.

A. The partition between the wood-house and kitchen had an opening or cupboard therein in which was situated the sink 3579 containing the two pumps, well, and cistern; the cupboard was a foot or eighteen inches wide and some four feet long with double doors on each side of the opening—both kitchen and wood-house sides; below the sink there were doors on one side, and, I think, on both.

C. Q. 85. State the number of rooms on the first floor of that house.

A. I think there was nine in all.

C. Q. 86. And about the number on the floor above?

A. I could not state; I should think seven or eight in all, including clothes presses, &c.

C. Q. 87. Can you state anything that Colonel Green said on that occasion while he was there, except when he was in the wood-house and kitchen?

A. I don't remember now.

C. Q. 88. Then all that you now remember that was said either by yourself or Colonel Green took place in the wood-house or kitchen, did it?

A. It did; all I remember.

C. Q. 89. In which one of those rooms?

3580 A. Mostly in the kitchen; some in both.

C. Q. 90. Can you state just what you said in the kitchen at that time?

A. Not all.

C. Q. 91. Do you remember distinctly what Colonel Green said in the wood-house at that time?

A. I do not.

C. Q. 92. Do you remember distinctly what Colonel Green said in the kitchen at that time?

A. Not all of it.

C. Q. 93. State just what you said, leaving out anything that you did.

A. I said I had a drove well; I said Mudge drove it down; I told him the way I got the water from well and cistern both; I said I didn't know whether they would be a lasting well or not; I said it was a new thing, an experiment, with me; I think I said that if the water supply formed a reservoir sufficient at the bottom of the well there would be no trouble but what it would be a good well; that is all I remember particularly about it now.

3581 C. Q. 94. Now, please state just what you will swear positively that Green said on that occasion.

A. Green said he thought there would be no trouble but what they'd be lasting, and that I had a good well there; had a good thing or good arrangement, or something to that effect; that is all I remember now.

C. Q. 95. Have you given the language used by Mr. Green and yourself on that occasion?

A. I can't say that I have exactly.

C. Q. 96. Is your memory as to that conversation better now than it was when you testified to that conversation in 1872 in the Carman case?

A. No, sir.

C. Q. 97. Do you mean to change or alter your testimony that was given in 1872?

3582 A. I do not.

C. Q. 98. Who was present at the interview between yourself and Colonel Green?

A. I do not remember.

C. Q. 99. Is it your recollection that some one was present?

A. I could not say.

C. Q. 100. What time of day did it occur?

A. I could not say now.

C. Q. 101. Will you swear positively that you told Green on that occasion that Mudge drove the well?

A. According to my best recollection now.

C. Q. 102. Question 101 repeated.

A. According to my best recollection now. That is the only way I can answer it.

C. Q. 103. Can you answer the question either yes or no?

3583 A. I can not answer it any differently than I have.

C. Q. 104. When Colonel Green was at your house did you explain to him the convenience and general arrangement of the house itself?

A. I think I did.

C. Q. 105. When you were examined in 1872 as a witness in the Carman case did you state, when called upon to give the conversation that occurred there between you and Colonel Green, that you told Green that "Mudge drove the well down?"

A. I don't remember.

C. Q. 106. Did you state on that examination in giving the conversation that you told Green that "I have a driven well?"

A. I don't remember.

C. Q. 107. Will you swear that you stated to Green on that occasion that "I didn't know whether the well would be lasting or not?"

A. That is according to my best recollection now.

3584 C. Q. 108. Will you swear positively that that was said by you at that time, in 1863?

A. That is according to my best recollection now.

C. Q. 109. Have you any driven well, Mr. Bates?

A. Yes, sir.

C. Q. 110. Have you paid royalties on the same to these complainants or any of them?

A. Yes, sir.

C. Q. 111. How long was Colonel Green at your house on that occasion in 1863 referred to?

A. I could not say.

C. Q. 112. Give me your best judgement of the time.

A. It might have been an hour or longer; I couldn't say.

C. Q. 113. Now you say that this conversation took place while you were in the kitchen; didn't you testify in 1872 in the Carman case that it was while we were generally through the house?

3585 A. I could not say whether I did or not.

C. Q. 114. Who first called your attention to this conversation, and when was it?

A. I could not say when it was or who it was; it was either Mr. Holmes or Mr. Alvord, I could not say which.

C. Q. 115. Didn't you state in the Carman case, on giving testimony in 1872, "I think it was in 1866; the first I remember was Mr. Alvord's talking to me about Green's invention?"

A. I could not say whether I did or not.

C. Q. 116. Is that true, according to your recollection now, that Mr. Alvord first called your attention to it in 1866 talking to you about Green's invention?

A. It was either he or Holmes, I could not swear which.

C. Q. 117. How were the pumps fastened to the sink?

A. I think there was a board on top of the sink that the pipes come up through at the end of the sink; I think the bottoms of the pumps rested on that board.

3586 C. Q. 118. Were you examined as a witness in 1871 on this subject in a suit of Colonel Green against W. and B. Douglass?

A. I cannot state whether I was or not; I was examined three or four times; I think I was.

C. Q. 119. During the cross-examination did you not made this answer to a question, "Green said you have a nice arrangement," and the remark might have applied to the house?

A. I could not say whether I did or did not.

C. Q. 120. If you did say it, was it true?

A. Yes.

C. Q. 121. Did you not also state on that examination and reiterate the same in your testimony in the Carman case as follows, in relation to the conversation that you had with Green there: "I cannot say what his mind was; he made the same observation in
3587 other parts of the house, and the remark made in the kitchen
might apply to the general arrangement of things; there was nothing in the conversation to the contrary?"

A. I don't remember, but if I did say so it was true.

C. Q. 122. Don't you remember whether it was true or not?

A. I don't understand your question.

C. Q. 123. Don't you know whether it was true or not that there was nothing in the remark made by Colonel Green when he said you have "a good arrangement," but what would have applied to the "general arrangement of things?"

A. I could not say whether it did or did not.

3588 C. Q. 124. In either of the several examinations when you testified as a witness and was called upon to give the conversation between yourself and Colonel Green that occurred in 1863 at your house, as testified to, have you on such examination ever before testified, "I said I did not know whether they would be a lasting well or not. I said it was a new thing and experiment with me. I think I said that if the water supply formed a reservoir sufficient at the bottom of the well there would be no trouble, but what it would be a good well. Green said he thought there would be no trouble, but what they'd be lasting, and that I had got a good well there?"

A. I don't remember whether I did or not.

C. Q. 125. Will you swear positively that the conversation referred to in the above question between you and Colonel Green took 3589 place or not? Please answer yes or no.

A. That is a part of the conversation that I now remember.

C. Q. 126. Haven't you any distinct recollection of what you have sworn to on your examination as a witness on this subject heretofore?

A. I have some.

C. Q. 127. Have you any recollection of testifying to the conversation quoted in cross-question 124 on your former examinations?

A. I don't remember whether I have or not.

C. Q. 128. What is your best recollection?

A. I cannot say more than I have about it.

C. Q. 129. Then do you mean to be understood as testifying that you haven't any recollection whether you have ever testified to that before or not?

A. I do.

C. Q. 130. You have been asked to give all the conversa- 3590 tion that occurred between yourself and Colonel Green while he was there at your house, in 1863, and have only given conversation in regard to this well, and you state you think he might have been there an hour or more. Is it true that you don't remember any other conversation that took place there at that time so as to be able to detail it here?

A. I can't give a full detail of any other conversation.

C. Q. 131. Can you detail any other conversation and swear positively it took place at that time?

A. I can't give no full details.

C. Q. 132. Please state what other conversation you had there that you are now able to swear positively took place, if any.

A. I could not detail any now.

C. Q. 133. Isn't it a singular fact, Mr. Bates, that you are able to testify to conversation in regard to these wells that occurred seventeen years ago and are not able to testify to any other conversation that you had with Colonel Green at that time when you were

3591 showing him all through your house, and you state that he
might have been there an hour or more; is it because your
memory is defective?

A. My memory is somewhat defective. I have been sick for the past six or seven years. One thing, the well was a new thing & has been talked about ever since, more or less, from the time it was put down.

C. Q. 134. Did you not invite Colonel Green in to see your house as he was passing by immediately before that conversation?

A. I could not say whether I did or not.

C. Q. 135. Did you not testify that you did, in 1871, in the suit where the Douglasses were defendants?

A. I don't remember. If I did it was so.

C. Q. 136. When did you first hear of a well being made by means of a pipe being forced into the ground?

A. I think it was in '61 or '62.

3592 C. Q. 137. Were not these pipe wells up to 1864 generally
called bored wells or artesian wells?

A. I have heard them called all ways.

C. Q. 188. Can you say positively that you ever heard them called driven wells prior to 1864?

A. I think I have; driven or drove, I don't remember which. I always called them drove wells or bored.

C. Q. 189. Have you ever assisted in selling any rights under any letters patent for any improvement relating to driven or bored wells?

A. I have.

C. Q. 190. Whose patent, and when?

A. Timothy Rose's, in 1866.

C. Q. 191. He is a relative of yours by marriage, is he not?

A. Yes, sir.

C. Q. 192. How long were you engaged in the selling of that patent?

A. Between four and six months.

3593 C. Q. 193. You have been questioned a great many times
in regard to this conversation you had with Colonel Green
in 1873, have you not?

A. I have been questioned several times.

C. Q. 194. What did you state to Jedediah Barber or what conversation passed between you, that you now remember, when he called at your house in 1863, as you have testified?

A. He came along the road in a buggy wagon. I was in front of the house somewhere. He stopped in the road and said, "Henry" (he always called me Henry), "who is building this house?" I said, I was. He says, "Who pays for it?" I said, "I do." He said, "Where did you get your money?" I told him that I worked for it. I asked him to get out and go in and see it. He went in the sitting-room; from there to the kitchen. There I showed him the
well and cistern arrangements and told him how it was made,
3594 and told him that they drove the pipe down in the ground;
they put a pump on and made the well that way. He pumped
some water. About that time there were three little girls in his

wagon and they "hollered" to him and he started. As he was going out he said I had a good house. That is all that I remember.

C. Q. 195. Have you used the exact language that was used by each of you on that occasion?

A. As far as I can remember.

C. Q. 196. Do you pretend to give the exact language, word for word, or only the substance?

A. As far as I can remember; there was more said, but I don't remember what was said.

C. Q. 197. Please state the conversation that you had with Hubbard while he was at your house in 1863.

A. I don't remember.

C. Q. 198. With Perkins—giving the conversation and leaving out what was done by either of you.

A. Perkins asked me what I thought of the drove well; I told
him, I see nothing but what it was a good one; he said
3595 if they was a good thing he calculated to have two—one in
his barn and one in his house; that is the substance of the
conversation with Mr. Perkins.

Adjourned till 7. 30 o'clock p. m., this evening, at this place.

April 9th, 1880—7.30 p. m.

Parties met pursuant to adjournment.
Present: As before.

Cross-examination of Henry Bates by Mr. Hurlbut resumed:

C. Q. 199. After your well was finished and during the two or three weeks you say it was exposed to view would it be possible for any person passing by the street to look at the pipe and pump and determine how the well was made, whether it went into a cistern pipe or whether it was a driven well?

A. I could not say that they could.

C. Q. 200. Could a person determine simply standing by and look-
ing at the pump and what was visible from the kitchen or
3596 wood-house of the driven well, and be able to determine by
such an inspection how the pipe went into the ground —
whether it went into a cistern or a dug well or whether it was put
into the ground by boring or driving?

A. I could not say that they could.

C. Q. 201. Please state the conversation you had there in 1863 with Stephen R. Hunter, leaving out entirely what was done by either of you.

A. Well, the substance of the conversation was about the well; about how I liked it and what I thought of it.

C. Q. 202. You have stated what the conversation was about; now, please state the conversation, giving what you said and what he said.

A. He asked me how I liked the well and what I thought about it; I told him I thought it was going to work well. He said he was

looking into the matter a little. He asked me who put it down; I told him Mr. Alvord had had Mudge put it down; that was
3597 the end of the conversation about the well.

C. Q. 203. Have you now stated the exact conversation and all the conversation that occurred between you and Hunter at that time?

A. All that I can remember about the well.

C. Q. 204. Please state fully the conversation you had with Israel Van Hoesen at that time and place.

A. I can't state fully the conversation that I had with Van Hoesen. We had several there. He worked for me painting, &
3598 we was talking about it more or less; I think he spoke and said he guessed it was going to be a good well; that's all I can remember now.

C. Q. 205. Can you remember the conversation that you had with any other person there in 1863 besides the four or five that you have already testified to the conversation?

A. I can't in regard to the well.

C. Q. 206. Can you in regard to anything else?

A. I can; some of my own personal matters?

C. Q. 207. Wasn't the arrangement of the house and the convenience of your well and cistern talked over more or less by them all?

A. I presume it was.

C. Q. 208. Then why is it that you can remember the conversation of four or five, and that only as to this well, and can't remember the conversation that took place between you and many others of the persons you have named and stated was there?

A. No other reason than I have stated that the well was
3599 the main topic of the day; I don't think of anything further now.

C. Q. 209. Do you mean to be understood by your last answer that there was more conversation about the well between these several persons that were there and yourself, the most of whom called for the express purpose of seeing your house, than there was about that house that you had just erected and then was completing?

A. Yes; there was more said about the well.

C. Q. 210. Didn't you testify in 1872, as a witness in the Carman case, that the principal conversation was in regard to your house?

A. I could not say whether I did or not.

C. Q. 211. State whether you or Colonel Green first pumped water on the occasion referred to and which pump was used first.

3600 A. I don't remember.

C. Q. 212. Will you swear positively that you used either of them on that occasion?

A. According to—my best recollection now is that we did.

C. Q. 213. I don't ask for your recollection now; I ask for your positive knowledge.

A. That's the answer as I can give it, according to my best recollection.

C. Q. 214. Will you swear that you can't be mistaken as to that?

A. Not according to my recollection.

C. Q. 215. Mr. Bates, is your recollection such that you are willing to swear positively that you can't be mistaken about your using the pump at that time?

A. I cannot swear any different than I have on it.

C. Q. 216. Do you know what I mean when I ask you if you w swear positively?

A. I cannot answer those questions any different than I have.

C. Q. 217. In answering questions, when you say "according to
your best recollection," do you mean to be understood as tes-
3601 tifying positively? Please answer the question yes or no.

3602 A. I do, as I remember them now.

C. Q. 218. Will you swear positively that your memory is correct? Please answer yes or no.

3603 A. I have answered these questions and *and* that one to the
best of my ability.

C. Q. 219. Whenever you have said "to the best of my recollection" has your recollection been the same as to all those matters testified to, or has it been as to some an impression, as to others a belief, and as to others positive recollection?

A. I have answered all questions that has been asked me according to my best recollection as I now remember them.

C. Q. 220. Your answer is irresponsive. Question repeated.

A. I cannot answer that any different than I have.

C. Q. 221. Do you refuse to answer that question?

A. I don't refuse; I think I have answered it.

3604 C. Q. 222. Then I ask you again, and I ask you to answer
either yes or no, whether your recollection is the same as to all the matters testified to whenever you have used the words "according to the best of my recollection" in connection therewith.

A. It is not equally strong on all points.

Examination of this witness closed.

(S'g'd) HENRY BATES.

Subscribed and sworn to before me this 9th day of April, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

Proceedings here adjourned until 9 o'clock a. m., April 10th, 1880, at same place.

APRIL 10TH, 1880—9 o'clock a. m.

Parties met pursuant to adjournment.
Present: As before.

IRA V. HICKS, being duly sworn for the defendant, and ex-
3605 amined by Mr. SUGGETT, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. Ira V. Hicks; age, 45 years; residence, Cortland, N. Y.; occupation, foreman of blacksmith shop Cortland Wagon Co.

Q. 2. How long have you resided in Cortland village?

A. 20 years.

Q. 3. What was your business in Cortlandville in 1861, 1862, and 1863?

A. I was carrying on a shop on North Church street, in this village.

Q. 4. Did you know at that time one Byron Mudge?

A. I did.

Q. 5. Where did he reside?

A. In Cortland most of the time.

Q. 6. During 1862 and 1863 did you do any work as a blacksmith for said Mudge?

A. I did.

Q. 7. What did you do for him?

3606 A. I drilled and pointed pipes and prepared his rods, &c., for making wells.

Q. 8. What kind of wells?

A. The pipes were prepared for driving into the ground.

Q. 9. State how you prepared the pipes.

A. They were pointed and drilled.

Q. 10. What were the pipes made of?

A. Common gas pipe.

Q. 11. What was about their diameter?

A. Inch and inch and a quarter inside, and the outside would be about inch and three-eighths and inch and five-eighths.

Q. 12. How were the holes drilled?

A. They were drilled at the pointed end, about two and one-half feet up from it; there were *were* four rows of holes about 1½ inches apart, up and down; the holes about a quarter of an inch in diameter.

Q. 13. Give the construction of the point.

A. The point was sometimes brought together and welded, & sometimes a plug was put in. I can't tell how these particular pipes were fixed.

Q. 14. When did you commence to prepare or make these pipes for Mudge?

3607 A. In 1862. My impression is in October.

Q. 15. About when did you cease to make these pipes for him?

A. I think in July or September of 1863.

Q. 16. During that time do you know of said Mudge making any of these driven wells in Cortland?

A. I do.

Q. 17. When and where?

A. In the spring of 1863, on Mill street, in Cortland village. It was made for me.

Q. 18. Did you see them make this well?

A. I did.

Q. 19. Please describe the tools and instruments used in making it?

A. There was a rod and pipe and the usual gas tongs. I think he used a pile-driver.

Q. 20. Describe the rod he used.

A. About 1¾ inch round and pointed; perhaps 12 or 15 feet long.

Q. 21. Describe the pipe.

A. Common gas pipe, about 1⅜ inches outside diameter,
3608 drilled and pointed in the usual way.

Q. 22. Describe fully and at large the construction of this driven well made for you by Mudge, commencing at the first operation and going naturally through with the different acts as was actually done at the time to the finishing of the same.

A. The pile driver was put in position first, and the iron bar was driven down ten or twelve feet, and then it was withdrawn and the gas pipe put in its place and it driven into the ground until they come to water, and the pump was put on and the sand and gravel pumped out.

Q. 23. How was the pump attached to the pipe?

A. It was connected with a screw & coupling.

Q. 24. After this pipe had been driven down was it tight in the earth and was the earth packed closely around it?

A. It was.

Q. 25. Was this pipe the suction pipe of the pump after it
3609 had been screwed thereon?

A. It was.

Q. 26. How deep was this well?

A. From 15 to 18 feet into the ground.

Q. 27. What did you use the well for?

A. It was used for building purposes in the first place and for family use after the house was completed.

Q. 28. Was this a practical and productive well?

A. It was; it produced water in abundance.

Q. 29. State, if you know, whether your neighbors or people living in that vicinity and in the village visited the premises while the house was being made and during the length of time the well was completed and saw this well.

A. There was people there and saw the well.

Q. 30. Could this well be plainly seen from the street; and, if so, for how long?

A. It could. I should think from a month to six weeks; perhaps two months.

Q. 31. How long was the well continued to be used for your purposes or those of your family?

3610 A. It was used for two or three years and then I sold the premises.

Q. 32. State whether or not in 1863 and in 1864 this method of obtaining water, known as the driven well, was the only means employed by the residents of Cortland village in making wells and obtaining water during said years.

A. It was the means employed, but — it being the only means I couldn't say.

Q. 33. State whether or not in the years 1863 and 1864 this method of obtaining water became public and common and was generally known in the village of Cortland.

A. I think it was.

Q. 34. Do you know the complainant, Nelson W. Green?

A. I did know him at the time by sight; I never had any particular acquaintance with him.

Q. 35. Was he a resident of the village of Cortland in 1863,
3611 and did you see him after — in that year?

A. I saw him often while he was a resident here; that is as far as I could say. I don't know whether it was in 1863 or not.

Q. 36. Was any secrecy enjoined or practiced by Mudge or any one else in the construction of this driven well in 1863 for you, or, on the contrary, was everything done openly and publicly?

3612 A. There was no secrecy enjoined; everything was done openly and publicly.

Direct examination closed.

Cross-examined by Mr. Hurlbut.

C. Q. 37. When you say that no secrecy was enjoined and it was done openly and publicly do you mean that it was done the same as any other work was done of the same kind and character?

A. I don't see any difference.

C. Q. 38. How far east of Main street in this village was this house located where the well was?

A. 150 rods, more or less; I could not say exactly; I never measured it; the well was about 5 rods from the street on which the house fronted.

C. Q. 39. Where was it located when the house was completed?

A. In the dining-room.

C. Q. 40. Could any one tell by passing by the street and seeing this pump there how the well was made, whether the pipe led
3613 into a cistern; whether it was a driven well or bored well?
I mean during the time it was exposed to view.

A. A person unacquainted with the driven well might not; one who knew of the driven well would, I think, *would* judge it to be a driven well for the reason there was no dirt thrown out or fresh dirt in sight.

C. Q. 41. Was there a cellar to your house?

A. There was.

C. Q. 42. Was stone and lumber drawn there and piled up before the construction of the house and cellar commenced?

A. The well was made before any stone or digging for cellar was done; there was lumber there, I think.

C. Q. 43. Question repeated.

A. Lumber, but no stone.

C. Q. 44. How long after the well was sunk or driven before you commenced digging for a cellar?

A. From two to four weeks.

3614–3619 C. Q. 45. Can you tell how many pipes you drilled for Mudge in 1863 or 1864?

A. I cannot now tell how many.

C. Q. 46. Of your own knowledge, how many driven wells were there in this village of Cortland prior to April 1st, 1864—that is, those that you saw?

A. The well that was put down for me was one. The rest I don't know about; I can't give dates.

C. Q. 47. Have you ever been examined as a witness in the driven well suits or proceedings, except in the last month, in a New Jersey case?

A. None, except the interference case, some years ago, between Suggett, Mudge, and Green.

Examination of this witness closed.

(S'g'd) IRA V. HICKS.

Sworn and subscribed before me this 10th day of April, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

3620 United States Circuit Court, District of New Jersey. In Equity.

BENJAMIN F. GREEN *vs.* PHINEAS M. FRENCH *et al.*

John W. Suggett for defendant-; William D. Andrews for complainant.

TUESDAY, *March* 23*d*, 1880—10 o'clock a. m.

Parties meet pursuant to stipulation.

JULIUS A. GRAHAM, being duly sworn in behalf of defendant-, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. Julius A. Graham; age, 51; residence, Cortland, N. Y.; occupation, cider and vinegar manufacturing, also farming.

Q. 2. How long have you resided in Cortland?

A. About thirty years.

Q. 3. State whether or not you were ever acquainted with Nelson W. Green; if so, when that acquaintance began and how long it continued.

A. I think I first knew him in 1858 or 1859; it continued three or four years, or perhaps longer; probably until 1867.

3621 Q. 4. Do you remember of a regiment known as the 76th Regiment of N. Y. Volunteers being organized in the village of Cortland?

A. I do.

Q. 5. When was that regiment raised?

A. In the fall of 1861.

Q. 6. What business relations did you have with that regiment, if any?

A. I had a contract for furnishing it rations; John Wheeler and myself held the contract with the State of New York for furnishing rations for the regiment.

Q. 7. About what was the date of that contract?

A. September 26th, 1861.

Q. 8. Did you know Byron Mudge?

A. I did.

Q. 9. What was his relation to the regiment?

A. He held some commission; that of lieutenant, I believe.

Q. 10. What relation did Nelson W. Green bear to the regiment?

A. He was colonel.

Q. 11. What was your contract for that you had from the State of New York?

A. Furnishing rations to the regiment.

Q. 12. Where did you first get the water that you needed?

A. From a dug well on the Cortland fair ground.

3622 Q. 13. Was the Cortland fair ground the camp of this regiment?

A. It was.

Q. 14. Did you get water from any other source than this dug well you have spoken of?

A. We obtained water from a well put down in the mess-room—a well put down some time in October, 1861.

Q. 15. Who put down this last-mentioned well?

A. Byron Mudge.

Q. 16. Who employed him to put it down?

A. I did.

Q. 17. State briefly what the contract was.

A. Mr. Mudge agreed to put down a well where I wanted it within a short time and without digging. I engaged him to do it.

Q. 18. Did you see the well put down, either in whole or in part?

A. I did almost wholly.

Q. 19. Describe the tools that were used in the making of this well.

A. A round iron bar or rod an inch and a quarter, certain, in diameter. Two rods were used; a short one to commence with and then a longer one to finish with—the last 10 or 12 feet long—were used.

Q. 20. What other tools were used?

3623 A. A sledge and sheet-iron tubing were also used, the sheet-iron tubing being riveted together in sections. The diameter of the sheet-iron pipe was from two to three inches, I should think.

Q. 21. Was there any other pipe?

A. Not in the construction of the well.

Q. 22. State all that you saw of the construction of the well, commencing at the beginning and going naturally through to the finish, giving fully and at large a description thereof.

A. A hole was made in the ground first by working and driving down these bars; sheet-iron pipe surrounded the bars and was driven and forced down about as fast as the rod, as fast as the hole was made by the bars, the bars being on the inside of this sheet-iron tubing. The bars continued to be worked down and the pipe followed by riveting on sections until water was reached, which was at a depth of about 12 feet. The process was continued until sufficient depth had been reached to obtain water in sufficient quantities.

The bottom of the sheet-iron pipe was not perforated, I
3624 think. The rod was then withdrawn from the sheet-iron tubing, the hole cleared of muddy water and the soil with a pump—with a liquor tin pump, I think—the end being inserted in

the inside of the sheet-iron tubing. After being sufficiently cleaned out the pump was withdrawn.

Q. 23. How deep was the sheet-iron pipe projected down into the water, according to your best judgment?

A. Two or three feet.

Q. 24. Was the sheet-iron pipe in itself air-tight, except at both ends?

A. It was not made air-tight; it was put together like stovepipe.

Q. 25. How far above the surface of the earth did the sheet-iron pipe project up after having been constructed as you have testified?

A. A few inches above the surface of the ground.

Q. 26. After the sheet-iron tubing had been cleaned out as you have testified and the pump used for the purpose withdrawn how was water obtained from the well made by this sheet-iron tubing?

A. A lead pipe was inserted and a pump attached at the upper
end and used as an ordinary pump, and water obtained
3625 by pumping.

Q. 27. What was the size of this lead pipe?

A. An inch or inch and a quarter, I should say.

Q. 28. Was the pump attached directly to the top of the lead pipe?

A. It was.

Q. 29. Did this lead pipe fill the sheet-iron tubing after it was inserted therein?

A. It did not; there was a space around it; the sheet iron was left open at the top.

Q. 30. Could the air pass freely down in the concentric space from the surface down to the water in the sheet-iron tubing from which the supply was obtained for the pump?

A. It could.

Q. 31. What was the size of that space?

A. It might have been half an inch or thereabouts.

Q. 32. For what purpose did you use the water obtained from this well?

A. For the necessary purposes of the kitchen, for washing, cooking, &c., for the regiment.

Q. 33. About how many soldiers were there for which the water
was thus obtained from this well?

3626 A. An average of about 500.

Q. 34. About how many gallons a day do you say was obtained from this well?

A. From 150 gallons to 300 gallons, perhaps.

Q. 35. How long was the well in use?

A. About three months.

Q. 36. During that time did it furnish a constant and abundant supply of water?

A. It did.

Q. 37. Did many people see the well?

A. I think they did.

Q. 38. Was Colonel Nelson W. Green then in command of the regiment?

A. A portion or most of the time, I should think.

Q. 39. Was he present at the making of the well?

A. I don't recollect now that he was.

Q. 40. Was he present on the camp ground during the time of the construction of the well?

A. I think he was.

Q. 41. Was he present during part of the time the well was being constructed?

A. I am unable to say — certain.

Q. 42. Give your best recollection.

A. I have no recollection of his being there; still, he might have been there.

3627 Q. 43. Do you know whether or not he at any time afterward saw this well?

A. I think he did some time while the regiment was on the ground.

Q. 44. Why do you say you think he did see the well?

A. Only because he was out and in our rooms every day or two, more or less, during the time he was in command.

Q. 45. Who did the work in the construction of this well?

A. Mr. Mudge did the most of it; a man in my employ assisted, and also myself.

Q. 46. Were the soldiers spectators when the well was made?

A. I don't know how that was.

Q. 47. Had you previously heard of an experiment at the house of Col. N. W. Green by Mudge and Carmichael?

A. Not that I recollect of.

Q. 48. What was the purpose of this sheet-iron tubing? Did it or did it not act as a curb?

A. It did, as a curb.

Q. 49. How did you come to apply to Mudge to make this well on the fair ground?

A. Mr. Mudge said that he could put me down a well quickly and cheap without digging.

3628 Cross-examination by W. D. ANDREWS:

C. Q. 50. How many wells were used by yourself and the regiment on the fair grounds or in its vicinity previous to the putting down of this tube well by Mudge?

A. I think there were two; one was near the mess-room, between that and the road fence on the fair ground; the other was a number of rods west of the mess-room.

C. Q. 51. Are you sure there were not more wells outside of the fair ground used for the purposes of the regiment?

A. I don't know of any more being used. I don't know that there were not more.

C. Q. 52. Did you yourself procure water from either of those wells?

A. I did from one of them previous to putting this one down. The one from which I used was one of the wells on the fair ground.

C. Q. 53. How did you procure water from that well?

A. By a pump, I think; I think a chain pump.

3629 C. Q. 54. From the second well how was water procured?

A. I think the same way.

C. Q. 55. Were these the common open dug wells, stoned up on the circumference?

A. I think they were.

C. Q. 56. Can you give the depth and diameter of those wells or either of them?

A. Not exactly; I think from 18 inches to 24 inches in diameter, and it was necessary to go about twelve feet for water there.

C. Q. 57. How far were they dug into water or what depth of water was at any time in them?

A. I am unable to say about that.

C. Q. 58. How long had you used the water from these wells before the tube well was put down?

A. Say three or four weeks.

C. Q. 59. Are you prepared to say that water was not used for the purposes of the regiment from wells outside the fair ground during that time?

A. I am not prepared to say. I did not go off the fair ground for any I wanted.

3630 C. Q. 60. Was there at any time during the occupancy of the fair ground by the regiment or during the time you were connected with it any other wells upon the fair ground than the three you have mentioned?

A. No, sir.

C. Q. 61. Then do you testify positively that there was no tube well outside the mess-room?

A. None that I know of. I never used or saw any other.

C. Q. 62. Did this tube well ever fail to give a supply of water?

A. No, sir; it did not.

C. Q. 63. Did the open wells fail to give a sufficient supply previous to the putting down the tube well?

A. I think they got low, but never give out.

C. Q. 64. Can you give us an idea of the depth of water in them at their lowest stage?

A. No; I can't.

C. Q. 65. Do you positively testify that you had no conversation with Colonel Green about this tube well previous to its being put down?

A. I don't recollect any; I can't swear that I did not.

3631 C. Q. 66. Can you testify positively that Colonel Green was not present some portion of the time or at some time while that tube well was being made?

A. I cannot.

C. Q. 67. Was not Lieutenant Mudge under the command of Colonel Green upon the fair ground while it was occupied by the 76th regiment?

A. I suppose he was during the time the Colonel was in command.

C. Q. 68. Was Colonel Green the colonel in command at the time of putting down this well?

A. I think he was.

C. Q. 69. Were not soldiers of the regiment detailed by Colonel Green to assist and did they not assist in putting down that well?

A. I am quite certain that none did assist.

C. Q. 70. Can you swear positively that they did not?

A. I am very certain that they did not. I think I could swear positively; only one or two persons could work at it any.

3632 C. Q. 71. What was the extreme length of the pipe used in that well?

A. The sheet-iron pipe was about twelve feet long; the pipe attached to the pump was some longer; probably a foot and a half longer as it rose above the ground.

C. Q. 72. Were there perforations in the bottom of this lead pipe or was the end open, or how did the water get into it?

A. The end was open; I think there were no perforations.

C. Q. 73. Did the iron pipe extend above the top of the ground; and, if so, how much?

A. I should think four or six inches above the ground.

C. Q. 74. How far above the ground did the lead pipe extend?

A. About eighteen inches to two feet.

C. Q. 75. What style of pump was attached to it?

A. A pitcher-spout pump, I think.

C. Q. 76. To what was this pump otherwise attached or how secured?

A. There was on the floor a small platform for the pump
3633 to rest upon—a square box upon which the pump stood, about two feet above the floor.

C. Q. 77. Do you know whether or not the lead pipe extended farther down into the earth than did this iron pipe you have described?

A. I don't think it did; I don't know certain.

C. Q. 78. As I understand your description of the making of that well, an iron rod was driven down into the earth, inside of and with the iron tube. Do you know whether or not that iron bar projected into the earth beyond the lower end of the iron tube?

A. I don't know whether it did or not.

C. Q. 79. In answer to direct question 21 you said no other pipe than the iron pipe was used in the construction of the well; you afterwards stated that a tin liquor-pump was inserted into the well. Did that have a pipe attached?

A. I think there was no pipe except the pump itself.

C. Q. 80. What was the length of the pump?

A. I don't know as I could tell; I have no definite recollection about the pump so that I could describe it.

3634 C. Q. 81. As you have described the use of this pump to take out earth from the inside of the pipe, then it was used in the construction of the well, was it not?

A. I think it was; water was poured in as they progressed.

C. Q. 82. In a former examination in the case of Andrews *et al. vs.*

Carman, on the direct examination, in answer to question 1126, which question was, "Please describe how this well was made;" after describing the preliminaries and the driving of the bar, you said the bar was withdrawn and another pipe was inserted into the sheet-iron pipe and a pump attached and the water and sand was pumped out until it becomes clear. No mention is here made of the use of the tin pump without a pipe. Is your memory in regard to that matter any better now than it was at the time of giving that testimony?

3635 A. Well, I can't say that it is.

C. Q. 83. And do you testify positively that such tin pump was used?

A. I testify only from the impression that I have, and am not, I think, absolutely positive concerning it.

C. Q. 84. Did you see such a pump there which gave you such an impression? And, if so, what the length of it was and whether it had before been used?

A. I have no definite recollection in regard to the length of the pump or the pump itself; only an impression that such an instrument was used.

C. Q. 85. How much sand was pumped out of that well?

A. I don't know. I haven't any idea.

C. Q. 86. When was the box on which the pump was fastened put in place and the pump attached to it?

3636 A. After it was completed and ready for use; within a day, any way.

C. Q. 87. Was it so put on and a pump attached before the water became clear?

A. I think it was.

C. Q. 88. Can you give any idea of how long it was before the water became clear?

A. No; I don't think I can.

C. Q. 89. Then you feel certain that this box was set upon the floor around this pipe within two or three days at most after the pipe was put down?

A. Yes, sir.

C. Q. 90. In regard to this iron pipe, is it a matter of judgment with you that it was not air tight from the manner in which it was made, or do you know it as an absolute fact?

A. I only know it by its manner of being made. It was not made air tight.

C. Q. 91. Are the same two open wells of which you have testified upon the fair ground still in existance there?

A. Yes, sir; they are.

C. Q. 92. Do you know whether there — any other wells now in existance or use upon the fair ground?

3636½ A. I think the- two are the only ones there.

C. Q. 93. What became of the tube well that you used in the mess-house?

A. The inside pipe and pump were taken up and taken away the spring following. The outside pipe was left.

C. Q. 94. What effort was made to take up the outside pipe?

A. No effort.

C. Q. 95. Has any use ever since been made of that pipe as a well or as any portion of a well?

A. The iron pipe left was never used afterwards.

C. Q. 96. What was the date when you took up the pump and lead pipe?

A. The latter part of March or first of April, 1862.

C. Q. 97. Did you do any business upon the fair ground or the mess-room after the 76th regiment left previous to taking up that pump and pipe?

A. I think not.

C. Q. 98. Did the box you have described remain under the pump and around the upper end of the pipe down to the time when 3637 you tore down the mess-room and took up the pump and pipe?

A. I think it did.

C. Q. 99. Can you testify positively that the space which you have described as existing between the iron and lead pipe was not partially filled with gravel, earth, sand, or other substance during the use of that well?

A. Not from any examination; I can't.

C. Q. 100. Did not the box you have described prevent any such examination?

A. It did.

C. Q. 101. And did not that box also prevent visitors from ascertaining what was the character of that well?

A. I think it did.

C. Q. 102. Have you in stating the capacity of this well as being from a hundred and fifty to three hundred gallons per day based that answer upon the amount of water you used in the cook-house?

A. I did.

C. Q. 103. And did you or not take into account any use made of the water from that well by soldiers or others outside the 3638 cook-house?

A. I did not.

C. Q. 104. Can you say positively that Colonel Green did not, previously to the putting down of this well, speak to you in relation to it—suggest to you to have it put down?

A. No; I can't.

C. Q. 105. Did any other parties subsequent to departure of the 76th regiment occupy this mess-room?

A. There did not.

C. Q. 106. Had any other persons access to or authority from you or your partner to make any use of that well after the departure of the 76th regiment?

A. No.

C. Q. 107. Then all the practical use that was made of that well during its existance was for account of, for the benefit of, and in connection with the 76th regiment, was it not?

A. It was.

C. Q. 108. Was any agricultural or other fair held upon that fair ground during the time of that well's existance there?

A. There was not.

3639 Redirect examination by JOHN W. SUGGETT:

R. D. Q. 109. You have said in your cross-examination that a pump was used and water was poured into the hole as the work progressed; do you mean that the water was used to loosen the soil and the pump inserted in the hole to withdraw the loosened earth after the rod had been withdrawn, and in this way the products of the excavation were brought to the surface?

A. That is my present impression.

R. D. Q. 110. You have stated in your cross-examination that the lead pipe was about a foot or eighteen inches longer than the sheet-iron tubing. Please explain where this additional length was used.

A. At the top.

R. D. Q. 111. Were there any other tube wells made on the camp ground at or about the time that this well was made by Mudge, as you have testified?

A. None that I know of.

R. D. Q. 112. Did you obtain any water from the two dug wells for your use after the construction of this tube well, as you 3640 have testified, and after the water became clear?

A. No, sir; we obtained our whole supply from the tube well.

R. D. Q. 113. Did the upper end of the sheet-iron pipe which projected above the top of the ground 4 to 6 inches, as you have testified, also project above the surface of the floor in the mess-room?

A. I think it did, or about even with the floor.

R. D. Q. 114. How long a time did it take to construct this well?

A. Some- less than a day.

R. D. Q. 115. What was the nature of the flooring and underpinning of this mess-room? And give a brief description of it.

A. Two by four joists laid level on the ground; floor, sawed hemlock boards.

R. D. Q. 116. Then the floor was not a tight floor.

A. No, sir; there were cracks in it.

R. D. Q. 117. Give a brief description of the construction of the liquor pump used to pump out the earth and other material inside of the sheet-iron tube from time to time, as it was forced into the earth.

3641 A. My impression of the pump used is not distinct enough to describe it.

R. D. Q. 118. Was there any secresy enjoined upon any of the parties in the making of the well?

A. Not upon me nor upon others, to my knowledge.

R. D. Q. 119. Was it an experiment by Mudge?

A. I don't know how that was. He said he could make me the well.

Recross-examination by WILLIAM D. ANDREWS:

R. C. Q. 120. Was not your answer that the lead pipe was 18 inches longer than the iron based upon the fact that the lead pipe projected 18 inches above the iron pipe?

A. It is.

R. C. Q. 121. And you do not know that it did not extend below the bottom of the iron pipe?

A. No, sir; I don't.

R. C. Q. 122. What was the nature of the soil there?

3642–3644 A. Gravelly loam. I think the stones must have been small. I don't know as I could describe it there, because I never worked in the soil there. I think "sandy loam" would describe it better than "gravelly loam."

R. C. Q. 123. Did not the rod, while driving down, force the earth sideways, and was not the pipe then forced down after the bar?

A. Yes, sir.

R. C Q. 124. Was any pumping of sand from that iron pipe done until after the rod had been driven to its full depth and withdrawn?

A. It's my impression there was, although I can't say positive.

J. A. GRAHAM.

Subscribed and sworn to before me this 23d day of March, 1880.

FREDERICK HATCH,
Notary Public.

3645 United States Circuit Court, District of Iowa, Eighth Judicial Circuit. In Equity.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, NELSON W. GREEN, and NOAH J. PARSONS, Complainants,

vs.

GEORGE LELAND, Defendant.

OFFICE OF JOHN W. SUGGETT, CORTLAND, N. Y.,
APRIL 15TH, 1880—10 o'clock, a. m.

Parties met pursuant to stipulation.

Present: D. L. Hurlbut, Esq., for complainants, and John W. Suggett, Esq., for defendant.

GEORGE N. COPELAND, being called for defendant and duly sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation.

3646 A. George N. Copeland; aged 59 years; residence, Homer, N. Y.; occupation, banking.

Q. 2. Did you formerly reside in the village of Cortland?

A. I did.

Q. 3. How long?

A. 31 years; except for a year or two.

Q. 4. Did you reside in the village of Cortland in the year 1862?

A. I did.

Q. 5. What was your business in that year?

A. Grocery merchant.

Q. 6. Where did you do business in Cortland in the year 1862?

A. In the Schennerhorn Block, on Main St., just north of Court St.

Q. 7. Did you make or cause to be made in the year 1862 a well on your premises where you did business?

A. I did. I owned the premises at that time.

Q. 8. Who made that well?

A. James Suggett.

Q. 9. Did you see it made?

A. I did.

Q. 10. What tools did said Suggett use in making it?

3647 A. I think he drove down a bar of iron first. He used a sledge to drive it down with. I am pretty sure it was a sledge. He also used a heavy pair of tongs to turn the rod with. He had a chain and a bar to draw it up with. He inserted a perforated pipe. At that time he had a wooden plug in the bottom of the pipe. A pump was also put on top of the pipe to draw water with.

Q. 11. How did he construct this well?

A. By driving a rod into the ground and withdrawing the rod and inserting an $1\frac{1}{4}$ — gas pipe perforated near the bottom, perhaps $1\frac{1}{2}$ feet up. A pointed wooden plug for the purpose of keeping out the gravel was in the end of the pipe. I think the wooden plug was afterwards driven out after the pipe was driven. A pump was screwed on the top of the pipe and gravel, mud, sand, and water pumped out until it became clear.

Q. 12. For how long was this driven well used?

A. It is in use now; has been used ever since it was put down.

3648 Q. 13. How do you fix when this well was made?

A. By the books; when it was paid for.

Q. 14. Why did you have this well made?

A. We had it made principally for making brine in pork-packing.

Q. 15. Do you know of any driven wells being constructed similar to this one made for you prior to the time it was constructed?

A. Well, none with a single tube. I knew of several with a double tube—a large pipe with a small one inside of it.

Q. 16. In what month in 1862 was this driven well made for you?

A. In September, previous to the 18th.

Q. 17. Why do you know or believe this was the first single-tube driven well made in Cortland village? State your reasons.

3649 A. Well, Mr. Suggett had previously been putting down double tube wells for parties here and he come to me and wished to put this down in our cellar as an experiment. He wasn't to have any pay unless it worked well.

Witness here asks if "you wanted to know what he (Suggett) said?"

Defendant's counsel states that the witness may state what he (Suggett) said at that time, it being part of the *res gestæ*.

Witness continues his answer:

Mr. Suggett explained this to me somewhat at the time; I had

my doubts about its working; he said he thought it would,
3650 for this reason—it would pump out the fine gravel and sand
and leave it much freer than a double-tube well; I don't
think of anything more in particular with regard to that.

Q. 18. Did many people come to see this well?

A. There did; a good many.

Q. 19. How was it considered at the time?

A. It was considered a perfect success by me; so much so that I advised Mr. Suggett to apply for a patent at once.

Q. 20. Please describe what you mean by a double tube well, giving briefly how they were made.

A. They were made by putting down a 2-inch tube, for instance,
with perforations at the bottom, and then a smaller one, say
3651 1¼ inches, inside of the large pipe, that also being perforated
at the bottom; the pump was attached to the inside pipe.

Q. 21. Where had you known of one or more of these double tube wells being made in Cortland village prior to this driven well made for you by Suggett in 1862?

A. On the Schermerhorn place; I don't know, personally, of any others; I think there was a double tube well on the fair ground, but am not positive.

Q. 22. Was the place where James Suggett made this driven well for you—that is, was the store in which it was made—in the business center of the village of Cortland?

A. It was.

Q. 23. Was the post office then in the same block as your store?

A. I think it was.

Q. 24. About what was the population of the village of Cortland in 1862?

A. I think about 1,800; perhaps 2,000.

3652 Q. 25. Did you at that time know the complainant, Nelson W. Green?

A. I did.

Q. 26. Where was his residence?

A. I don't believe I can tell where he lived at that time.

Q. 27. Supposing that said Green did live on North Main St., in Cortland, would he, in going to and from the post office and the banks at that time, pass by this store of yours?

A. He would.

Q. 28. State, if you remember, whether or not he or his family traded at your store.

A. They did.

Q. 29. After the construction of this driven well for you and during 1863 driven wells made after the method you have described yours was made came into general use in the village of Cortland, did they not? In your answer give your reasons why.

3652½ A. They did come into general use, because they were the cheapest and best wells made in this village.

Q. 30. Did you have any more of these driven wells made? If so, when and where?

A. I did; one at my house, on South Main St.; one in a house I bought, out of town about a mile, called the "Merrick" place; one on Port Watson St.; the first one, I think, was in 1863; that one on South Main St. I will say 1863 or 1864—the same year I bought the land of Gen. Randall; the one on the Merrick place was a year later; both were put down in spring—April or May; the one on Port Watson St. was put down the next year after that—in 1865.

Proceedings adjourned until 1.30 p. m. at same place.

3653 APRIL 15TH, 1880—1.30 o'clock p. m.

Convened pursuant to adjournment.

Present: As before.

Examination of GEORGE N. COPELAND resumed:

Q. 31. Can you fix about the time when the driven well was made on your premises on South Main St.?

A. It was the latter part of April, I should think, in 1863.

Q. 32. How was that well made?

A. I think the pipe was driven down, without first making a hole, with a rod; completed by putting on a pump—screwed on—and water pumped out. It was put down after 5 o'clock p. m. and was in running order before night.

Q. 33. Do you know of any other driven wells being made in Cortland in 1863?

A. Yes.

Q. 34. For whom and where?

A. Clinton McGraw, on South Main St.—next house to the 3654 one that I built; it was made similar to mine & put down about the same time as the one on my place on South Main St.

Q. 35. For what purposes did you use this well made for you on your premises on South Main St. in 1863, and for how long did you continue to use it?

A. For family purposes about a year and a half. I think it is in use now.

Q. 36. Did said Green personally trade at your store in 1862 and 1863?

A. I think he did.

Q. 37. Was the subject of this driven well made by Suggett for you in 1862, as you have testified, the subject of a great deal of talk and discussion at the time by people in the store and otherwise? State generally how it was.

A. I should say it was considerably so; a great many people went down into the cellar to see it.

3655 Q. 38. Do you know whether or not Byron Mudge was engaged in making driven wells in the village of Cortland in the years 1862 and 1863 or during any part of those years?

A. I never have seen him make any.

Q. 39. Had you heard of Mudge making any such wells in those years?

A. I had.

Q. 40. When did you first learn that said Green made any claim as the inventor of these wells?

A. At the time they commenced taking testimony in the interference case between Green, Mudge, & Suggett.

Q. 41. Was the pipe of the well made in the cellar in 1862 by Suggett driven tightly into the earth so that after it was inserted in the earth, as you have testified, the earth was packed tightly around the tube?

3656 A. It was.

Q. 42. Is the same true of all the other driven wells you have described?

A. I should say yes.

Q. 43. State whether or not after the construction of this driven well for you in 1862 by Suggett these driven wells so constructed became public and common in the said village and were about the only way in which wells were made in the years 1863 and up to the present time.

A. I should say that that was so, substantially.

Q. 44. About how long was the pipe used by Suggett in the construction of the driven well for you in 1862?

A. Twelve to fifteen feet.

Q. 45. How much of it was driven in the ground?

A. About 2½ feet was above the ground; I presume fifteen feet would cover the whole of it.

Direct examination closed.

3657 Cross-examination:

C. Q. 46. You spoke of an interference case. Was Colonel Green, James Suggett, and Byron Mudge parties, as you understand?

A. I so understand it; I think it was in relation to the patent on driven wells.

C. Q. 47. Did you testify as a witness in that case?

A. I think I was, but am not positive.

C. Q. 48. Do you remember the case of Wm. D. Andrews *et al. vs.* Carman, in which testimony was taken in Cortland in 1872 and '3 in regard to the patent on driven wells?

A. Yes; I think I remember it; on reflection, I do not think I was sworn in the interference case, but in the Carman case; I am a little mixed in regard to it.

C. Q. 49. Were you called as a witness by the complainants in the Carman case?

A. I think I was; that is my recollection—that I was called by Andrews.

3658 C. Q. 50. You said James Suggett made a well for you. Is he now living in Cortland village, and is he not the father of the defendant's counsel?

A. He is the father of defendant's counsel, and I understand he lives here.

C. Q. 51. How long was Suggett at work in constructing the well put down in the cellar of the store in 1862?

A. About one day. He done it all in one day.

C. Q. 52. Please give the dimensions of that cellar, approximately.

A. About 48 by 60.

C. Q. 53. State where in the cellar the well was.

A. A little east of the center of the cellar, about ⅓ of the way from the east wall.

C. Q. 54. The customers that came to your store to purchase the ordinary groceries and provisions were waited on on the floor above the cellar, were they not?

A. Yes.

C. Q. 55. When did you first know Colonel Green or of him?

A. Some time previous to the war; I cannot tell just when.

3659 C. Q. 56. Give your best recollection of the number of years.

A. I have not much recollection of him previous to the war. I cannot tell whether he was here three months or three years or ten years.

C. Q. 57. Do you know of your own knowledge whether he commenced trading at your store or not when he first came to town?

A. I cannot tell.

C. Q. 58. Can you give the date positively when he first commenced trading at your store?

A. I cannot; our old books are destroyed.

C. Q. 59. Do you know whether any charges appear in any of your books against Colonel Green while you were in the grocery business?

A. Yes; lots of them. He ran an account there for several years certain.

C. Q. 60. Are those the books that were lost which contained those charges?

A. They are. I think they have been used for scrap books since.

C. Q. 61. Can you tell the date that Colonel Green ceased to have an account at your store?

3660 A. I think in 1863.

C. Q. 62. Did he have an account at your store until he left Cortland village?

A. I am very sure that he did.

C. Q. 63. Did his family do a portion of the trading that was charged to his account?

A. They did.

C. Q. 64. Colonel Green was out of the village of Cortland considerable of the time during the years 1862, 1863, and 1864, was he not?

A. I think he was.

C. Q. 65. You say on your direct examination that this is the first single tube well that you knew of, but double tube wells had been put down for parties here. Please state who had double tube wells put down here, of your own personal knowledge, if any one.

A. James A. Schermerhorn; I don't know of any others, of my own personal knowledge.

C. Q. 66. You say people came to see this well at your store.
3661 For how long a time can you positively say that they so came, after your well was completed?

A. I should say it ceased to be a curiosity after two or three weeks.

C. Q. 67. You say the post office was in the same block as your store. In what year was it removed?

A. I could not tell what year. Eight or ten years ago, I think.

C. Q. 68. Who, of your own knowledge, had driven wells put down in Cortland in 1863?

A. Besides myself, Mr. McGraw, Mr. Pomeroy. I have no doubt there was three hundred put down in 1863.

C. Q. 69. Have you stated all that you saw put down or know personally that were put down during the year 1863?

A. I don't think that I have stated all that I saw, but I can't just exactly place them all.

C. Q. 70. Where was Mr. McGraw's well?

3662 A. Right next to my house on South Main St.; in the house.

C. Q. 71. Where was Pomeroy's well located?

—. In his barn, I think.

C. Q. 72. Where was the well that you had put down in 1864 located?

A. About a mile out of town; on the "Merrick" place.

C. Q. 73. Were you examined as a witness in a case brought in the U. S. circuit court of New Jersey in relation to this patent?

A. I was.

C. Q. 74. Give the shape of the wooden plug that was used in the construction of the well at your store.

A. It was made to fit the pipe at the top, with a shoulder, and the bottom part sharpened with a hatchet or something. It was not turned.

C. Q. 75. Did you see the well when it was being put down on the fair ground?

A. No, sir. I afterwards saw it when the regiment was there and pumped water from it. It was located, I think, a little west of the south gate. I do not know of my own knowledge that it was a double tube well.

3663 C. Q. 76. Are driven wells used in the village of Cortland now to some extent for the purpose of supplying water to fire engines?

A. They are.

C. Q. 77. When was the first you ever heard of a driven well constructed similar to the one you have described in the cellar of your store?

A. That was the first one.

Cross-examination closed.

Redirect examination:

R. D. Q. 78. You have stated in your cross-examination that every new house that was built in the year 1863 had one of these driven wells, did you not?

A. I don't think I stated that in the cross-examination; not in answer to a question.

R. D. Q. 79. Was it true or not?

3664 A. I have no doubt it was true.

R. D. Q. 80. You have testified on your cross-examination that James Suggett now lives in the village of Cortland. State, if you know, whether or not he has been sick for several years last past.

A. I know he has been sick, and I should say it was for several years, too.

Redirect examination closed.

Recross-examination:

R. C. Q. 81. Has he (Mr. James Suggett) been able to be around the streets within the last month, and haven't you seen him around the streets within that time?

A. I cannot say that I have seen him in a month; I met him one evening several weeks since.

R. C. Q. 82. Do you know Horace Dibble?

A. I do.

R. C. Q. 83. Where does he now reside?

A. I suppose in the upper part of the village.

3665 R. C. Q. 84. Do you know William O. Barnard, Daniel Smith, and Allen B. Smith?

A. I do.

R. C. Q. 85. Where do you understand they reside?

A. William O. Barnard lives in Mason City, Iowa; Daniel Smith—

Witness here says he does not know what Daniel Smith he means.

R. C. Q. 86. How about Allen B. Smith?

A. He lives between here and Homer.

R. C. Q. 87. I ask you the same question as to Harmon Hubbard, Stephen R. Hunter, A. P. Smith, Israel Van Hoesen, Daniel Van Hoesen, and Jedediah Barber and Thomas Perkins.

3666 A. Harmon Hubbard resides in the north part of this village; Stephen R. Hunter is dead; A. P. Smith lives on Court-House hill, in this village; Israel Van Hoesen resides about a mile west of Cortland village; Daniel Van Hoesen lives in Cortland village; Jedediah Barber is dead; Thomas Perkins is dead.

Examination closed.

(S'g'd) G. N. COPELAND.

Subscribed and sworn to before me this 15th day of April, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

Proceedings adjourned until 9 o'clock a. m., April 16th, 1880, at this place.

3667 April 16th, 1880, 9 o'clock a. m.—Convened pursuant to adjournment.

Present: As before.

De Witt C. Callen, being called for the defendant and duly sworn, testified as follows:

Q. 1. What is your name?

A. De Witt C. Callen.

Q. 2. Age?

A. 45, come July.

Q. 3. Residence?

A. Preble, N. Y.

Q. 4. Occupation?

A. Farmer; work at a little of everything.

Q. 5. How long have you resided in the town of Preble, N. Y.?

A. I was born there. I have been out of town two years since that time.

Q. 6. Did you know William E. Tallman in his lifetime?

A. Yes, sir.

Q. 7. At one time did said Tallman own a farm in the town of Preble?

3668 A. He owned the farm, but there was a mortgage on it. He occupied the farm.

Q. 8. Did you own a farm near or adjoining this farm of William E. Tallman's?

A. Yes, sir.

Q. 9. Do you remember of William E. Tallman causing a well to be dug on his farm?

A. Yes, sir; or partly dug.

Q. 10. Where; on the farm?

3669 A. On the west side of his farm, or pretty near the west side.

Q. 11. Where was that well dug or partly dug?

A. I think it was in 1859, in the spring, along in last of April or first of May.

Q. 12. How deep was it dug?

A. I should think anywheres from eight to twelve feet.

Q. 13. Describe how it was made.

A. I know nothing about that, any more than it was dug there, about eight to twelve feet deep.

Q. 14. What was its diameter?

A. I should think after it was stoned up it was 2½ to 3 foot across, or somewheres near there.

Q. 15. Did you see this dug well when it was being made?

A. I see it when it was down 2½ or three feet, when they were digging it. I was there five to ten minutes.

Q. 16. When next did you see anything about it and what did you see?

3670 A. I see water there and see them pump water. That was all I saw at that time.

Q. 17. When next did you see this well and what did you see?

A. I was over there in latter part of May and first of June and see them pump water three or four times. It was right close by. I was there two or three times after that, of Sundays, and see them pump water.

Q. 18. State whether or not afterwards this dug well became dry; and, if yea, about when.

A. Yes, sir; it was dry. I should say it was not far from last of July or first of August that it was dry.

Q. 19. What, if anything, did you see done or performed in relation to this dug well after it became dry?

3671 A. Mr. Tallman come over and borrowed my maul, and I went over to get it, and he wanted to use it a little while longer. He was driving the pipe with my maul. He drove the pipe anywheres from four to eight inches whilst I was there. I was there from five to ten minutes.

Q. 20. Where was this pipe that he was driving?

A. In this dry well.

Q. 21. Whereabouts in the dry well was it?

A. Not far from the middle of the well, as nigh as I could guess at it; I didn't measure at all.

Q. 22. Describe how the pipe was being driven.

A. One man had the maul and another man held a piece of scantling that lay on top of the pipe.

Q. 23. Who held the scantling and who used the maul?

A. Mr. Tallman held the scantling; I think Mr. Getman used the maul.

Q. 24. About how many blows did you see struck while you were there?

A. Anywheres from six to a dozen; I wasn't there but a short time.

Q. 25. Was the pipe in the ground in the bottom of the
3672 dry dug well when you got there?

A. I did not go down to see whether it was on the ground or drove in.

Q. 26. About how far was the pipe driven while you were there?

A. Anywheres from four to eight inches.

Q. 27. Did you see anything more done there which you remember of and have not already stated? If so, state what it was.

A. They was pumping water the next time I was there with a windmill.

Q. 28. When was it that you saw them pumping water with a windmill?

A. Some two or three weeks after, I should think.

Q. 29. How was the pumping done? Describe what you saw at that time. State fully.

A. There was a shaft run up and down, the same as any pump would, with *with* a handle on; the shaft run up to the windmill; I have a piece of the shaft now.

3673 Q. 30. About what was the size of this pipe that you saw them driving?

A. It was not far from an inch and a half, as near as I remember.

Q. 31. What kind of pipe?

A. An iron pipe.

Q. 32. About how much of it projected up above the bottom of the dry dug well when you first saw them driving?

A. Anywhere from six to eight feet.

Q. 33. Where was the pump that pumped the water after the pip was put in?

A. I should think the pump was up about three feet from the top of the ground; it would not vary much from that.

Q. 34. In what year did you see this driving?

A. It was either 1858 or 1859.

Q. 35. How do you fix the date?

A. By the camp-meeting being there.

Q. 36. What has the camp-meeting to do with it by which you fix the date?

A. Because I had two drunken men to work for me at the time
and the accident that happened at the time; Mr. Davis came
3674 pretty near getting killed at the time by the carelessness of my
hired man.

Q. 37. How long was this well used?

A. I couldn't say.

Q. 38. For what purposes was it used?

A. Watering stock.

Q. 39. About how long was it used?

A. Well, they used it that season.

Q. 40. How long did you see water pumped out of this well made by the pipe driven into the earth?

A. O, three or four times after they got it to work; perhaps three or four times.

Q. 41. Was it then furnishing a good supply of water?

A. Once the trough was full; the other times I don't remember.

Q. 42. Was the pump on top of the pipe?

A. Yes; it was not at the bottom.

Q. 43. Was the pump fastened on top of the pipe?

A. Yes, sir.

Q. 44. What kind of a soil was it where this well was made?

A. Gravelly soil.

3675 Q. 45. Describe the place where the dug well was made—
that is, whether it was higher or lower than the surrounding
land. Give a brief description of it.

A. On the west the ground was higher and northwest; on the east and northwest, after about fifteen to twenty feet, it was higher there; on the north it raised a little; on the south it sloped considerable, descending to the lake.

Q. 46. How far did you live at the time this pipe was driven into the earth, as you have testified, from the place?

A. From forty to sixty-five rods.

Q. 47. How many head of cattle did Tallman water from water obtained from this well made by this pipe?

A. I don't know.

Q. 48. Where was this well situated from the house in which William E. Tallman then lived?

A. A little north of east.

Q. 49. About how far?

A. It lacks about 70 rods of a mile from his house, as nigh
3676 as I can get it; not far from that; some would call it three-quarters of a mile.

Q. 50. How far was the place of this well from Preble corners?

A. As nigh as I can get at it, it is about a mile and twenty rod.

Q. 51. In what direction?

A. I think about south of Preble.

Q. 52. You then were the nearest resident to the place where this well was made, were you not?

A. I think not.

Q. 53. Whose residence was nearer than yours?

A. Mr. Tallman's tenant house.

Q. 54. Who lived in the tenant house at that time?

A. I couldn't say.

Q. 55. Is William E. Tallman, the person whom you saw holding the scantling, now living?

A. They say he is dead.

Q. 56. What was William E. Tallman's business in 1859, at the time he was on this farm?

A. He was running the farm and a grist-mill and saw-mill altogether.

Q. 57. You spoke about a camp-meeting; what kind of a camp-meeting was that?

3677 A. A Methodist camp-meeting.

Q. 58. Where was this camp-meeting held?

A. In Mr. Tallman's woods.

Q. 59. What Tallman?

A. Moses Tallman.

Q. 60. You stated that you went over to see this well work. State whether or not others did so.

A. I could not say whether they went to see it or not.

Q. 61. How was it considered in the neighborhood and in and about Preble. That is, state whether or not it was talked and discussed at the time and this method of obtaining water by driving a pipe down into the earth and attaching a pump, as you have testified, was considered a novelty.

A. I couldn't say.

Q. 62. Did you hear anything said about it at the time?

3678 A. I did.

Q. 63. By whom?

A. My brother.

Adjourned until 1.30 o'clock p. m., April 16th, 1880, as this place.

April 16th, 1880—1.30 o'clock p. m.

Convened pursuant to adjournment.

Present: As before.

Examination of **De Witt C. Callen** resumed:

Q. 64. Was any secrecy practiced or enjoined by William E. Tallman or Getman when they were driving this pipe?

A. Not that I know of.

Q. 65. Did you see the upper end of the pipe?

A. Yes, sir.

Q. 66. What did you see on its upper end?

3679 A. A thread cut on it.

Q. 67. Where was the pump situated in the dug well after it had been screwed on or fastened on the top of the pipe?

A. About three feet from the bottom of the well.

Q. 68. Describe what you saw about the pump in the well at the time you looked at it. Give a brief description of how it was arranged and secured and how the water was brought up to the trough.

A. I couldn't say whether it was a plank or a platform that
3680 steadied it. A scantling or a plank run down through the
dug well. How it was fastened to the pump I don't know. This rod run down into the pump, and when the windmill went it forced the water up somehow through a lead or tin pipe up over into the trough.

Q. 69. Was the earth in the bottom of the well in contact with and close up to the pipe driven therein?

A. It was for all what I see.

Q. 70. Did William E. Tallman give any name to this well at the time it was being driven?

A. Not that I know of.

Q. 71. Describe the maul that you let him have to drive the pipe with.

A. It was round one way and about eight to nine inches long,
with two square ends on it; about four inches through it—
3681 across, with a handle about two feet long in it. It was of
cast iron and weighed, with handle and all, about fifteen or sixteen pounds.

Q. 72. Describe how William E. Tallman and the other man stood and how they drove down this pipe.

A. One stood and held the block and the other drove with the maul.

Q. 73. What was the block or piece of scantling used for?

A. They laid the block on top of the pipe and struck on top of the block to drive the pipe.

Examination closed.

Cross-examination:

C. Q. 74. When did you first see Mr. Suggett, the defendant's counsel, in relation to this case?

A. I have seen him to-day for the first that I know of.

3682 C. Q. 75. Did you ever have any conversation with defendant's counsel here before to-day in relation to this case?

A. No, sir.

C. Q. 76. When were you subpœnaed?

A. The money was left there last night with my wife about eight o'clock by Mr. Tallman. I was gone away from home.

C. Q. 77. What Mr. Tallman?

A. Moses Tallman.

C. Q. 78. How far does he live from your house?

A. A little less than a mile.

C. Q. 79. Did you see Mr. Tallman, personally, yesterday?

A. Yes, sir.

C. Q. 80. What time in the day?

A. Not far from one o'clock; also at half past three to four o'clock.

C. Q. 81. Where did you see him at those times?

A. In the road.

3683 C. Q. 82. Did you converse with him on either of these occasions?

A. I did.

C. Q. 83. On the subject of this suit or that well, or anything pertaining to it?

A. No, sir.

C. Q. 84. Do you swear positively that there wasn't a word said in regard to it in any way, shape, or manner?

A. Yes, sir.

C. Q. 85. Did you know that you were to be called as a witness in this case, on the part of the defendant, before last evening?

A. I heard a man say at Preble that I was to be called here.

C. Q. 86. What was that man's name?

A. Abram Van Denburgh.

C. Q. 87. When was that?

A. I should think it was about five weeks ago at the time you was setting here before.

3684 C. Q. 88. Is that the first and only notification or suggestion that you have had that you were to be called here as a witness on the part of the defendants prior to last evening?

A. I have had three or four different men say that they thought they would call on me before the suit was through with here.

C. Q. 89. Name those men.

A. Mr. Squires (Charles Squires), Mr. Doger (Jonas Doger), and Mr. Tallman (Moses Tallman).

C. Q. 90. When did these men so tell you, before or after Van Denburgh?

A. After Van Denburgh.

C. Q. 91. I suppose, Mr. Callen, that this subject has been talked of there among the neighbors considerably of late, hasn't it?

A. No, sir. I have not heard but three neighbors that I know of say anything about it.

3685 C. Q. 92. Who have you told what you knew in relation to this well?

A. I talked a few minutes with Mr. Woolston and also a few minutes with Mr. Tallman. He asked me if I knew anything about the well.

C. Q. 93. Any one else?

A. Not that I remember.

C. Q. 94. Haven't you heard considerable talk and discussion in regard to this well at Preble Corners within the last two or three months?

A. No, sir.

C. Q. 95. Have you heard some?

A. I have.

C. Q. 96. Did you tell Van Denburgh what you knew about it at the time he said that you would be called as a witness?

A. No, sir.

C. Q. 97. Or that you knew anything about it?

A. I did.

3686 C. Q. 98. Then you told him that you knew something about it, didn't you?

A. Yes, sir.

C. Q. 99. Do you remember of meeting and conversing with Mr. William D. Andrews, a gentleman who was with me, and myself (Mr. D. L. Hurlbut), in front of your house in February last?

A. I remember of conversing with him (pointing to Mr. Hurlbut), but the other man's name I did not know.

C. Q. 100. And didn't we so converse with you with regard to the well and windmill from twenty minutes to a half an hour?

A. Yes, sir.

C. Q. 101. And didn't we question you as to what you knew about the same, fully?

A. No, sir.

C. Q. 102. Do you swear to that positively?

A. I do.

C. Q. 103. Didn't we ask you what you knew about the well and windmill?

3687 A. Not in those words.

C. Q. 104. Question repeated.

A. You asked me if I knew anything about that well over in the lot—Mr. Tallman's.

C. Q. 105. Didn't you state, in reply, in substance, that you simply knew that there had been a well there and it worked by a windmill? Please answer directly.

A. I told that there had been a well dug there from eight to twelve feet deep.

C. Q. 106. Question repeated.

A. I told them that there had been a well dug there and then a pipe drove and water pumped with a windmill, and that they used my maul to drive the pipe with, and that I had a piece of the pitman shaft and rod; I looked for the rod, but did not find it that day and not until this week.

3688 & 3689 C. Q. 107. Question repeated. I ask for an answer—yes or no.

3690 A. I answered, as far as I knew.

C. Q. 108. Do you refuse to answer that question yes or no?

3691 A. I have told you what was said at the time as nigh as I remember of it.

C. Q. 109. I don't ask you what your understanding is of what was said, but I simply ask you if you stated to us there, in substance, that you knew that there had been a well there and it worked by a windmill; will you please answer?

A. Yes, sir; I did tell them so.

C. Q. 110. Didn't you further state at that time that you had a piece of the shaft that went up to the crank of the windmill; that it was made out of wood, about an inch and a half one way and an inch the other, with strips of iron bolted or riveted up and down the sides? Please answer yes or no.

3692 A. I said that I had a piece of the shaft fastened to an iron rod that went down into the pump; the iron was about six or eight inches long, I think I told them; the wood about the same length.

C. Q. 111. Then you didn't say to us at that time what I have stated in question 110, did you?

A. I never said it had strips of iron running up and down it.

C. Q. 112. Did you look for the shaft at that time while we were there, and weren't you unable to find it?

A. Yes, sir.

C. Q. 113. Didn't we meet you that day some little distance south of your house first?

A. Yes, sir.

C. Q. 114. And didn't we then ask you something about this well and when it was put down, and didn't you state you should
3693 have to think of it and said that you would on your way home, or that in substance?

A. Yes, sir.

C. Q. 115. And then we went to your home with you, did we not?

A. They followed me home within ten to thirty rods.

C. Q. 116. Didn't we state to you there in the road that as you were there with your team and as we were going round by Preble Corners we would not detain you there, but would drive up to your house, and did so?

A. Yes, sir.

Proceedings here adjourned until 9 o'clock a. m., April 17th, 1880, at this place.

3694 APRIL 17TH, 1880.—9 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of DE WITT C. CULLEN resumed:

C. Q. 117. Did the gentleman that was with me at the time that we called at your house in February at the close of the conversation state to you that he probably should call you as a witness in this case?

A. No, sir.

C. Q. 118. Do you swear, Mr. Cullen, positively, that neither that gentleman nor myself spoke to you in regard to being a witness in this case during that conversation?

A. Not as I remember of.

3695 C. Q. 119. Didn't you state to us there, in substance, that you didn't know anything about that well, except that it was a dug well and worked by a windmill? Please answer directly, yes or no.

A. No, sir.

C. Q. 120. How long have you lived on the place that you now occupy?

A. Well, I have lived there 35 to 37 years, as I remember, in that house, excepting two years that I was gone away.

C. Q. 121. What two years were you away?

A. I was gone away eleven and twelve years ago, as nigh as I remember. I date this from the memory of my girl's age.

C. Q. 122. Where were you then?

A. In Oswego county.

C. Q. 123. Of what descent are you, or nationality?

A. My great grandfather was born on the ocean, coming to this country; on my mother's side I was Yankee. I suppose my great grandfather was part Irish.

C. Q. 124. When and what time of day did you first see this well in question, or any part of it? I mean the first well of any kind that has been testified to.

3696 A. The time of day I cannot say, but from the middle of April to some time in May, 1859.

C. Q. 125. Just how much work was performed on it when you first saw it?

A. They had commenced digging and had dug from three to four feet, as nigh as I can remember.

C. Q. 126. Was you there when they commenced digging?

A. No, sir.

C. Q. 127. How long were you there at that time?

A. Not but a short time.

C. Q. 128. How long do you mean by "a short time?"

A. O, anywheres from fifteen minutes to an hour.

C. Q. 129. Do you mean to testify that you were there at that time from fifteen minutes to an hour?

A. Near that.

C. Q. 130. Haven't you already testified that you were there at that time from five to ten minutes?

A. No, sir.

3697 C. Q. 131. Will you swear positively that in answer to direct question 15 that you did not say that you were there from five to ten minutes at that time?

A. No; I did not; not when they was digging the well. It was when they was driving the well.

C. Q. 120. You say, in answer to cross-question 125, that the well was some three to four feet deep at the time that you were there when they first commenced digging; didn't you say yesterday, on your direct examination, that at that time it was from two and a half to three feet deep?

A. I have not been sworn on my direct — to the depth of the dug well when I first saw it.

C. Q. 121. Will you swear positively that you did not testify yesterday that you saw the well when it was down two and a half to three feet deep, when they were digging it?

A. Not that I remember of.

C. Q. 122. Is that as strong as you will put it?

A. Positively, not that I remember of.

C. Q. 123. Who were to work at that well during the short
3698 time that you were there, when they were digging?

A. Mr. Getman (Jefferson Getman) and, I think, Thomas Perry. I understand Mr. Thomas is dead.

C. Q. 124. Any one else there at that time that you now remember of?

A. I think Mr. Wm. E. Tallman stood by. I do not remember of any one else.

C. Q. 125. What were you to work at that day?

A. I couldn't say.

C. Q. 126. Was it a pleasant day, or stormy?

A. I think a pleasant day.

C. Q. 127. What was your business there?

A. Merely to see them dig down the well.

C. Q. 128. Then you didn't have any regular business any more than to see them dig down the well, did you?

A. Not this time that I remember of.

C. Q. 129. Were you there again during the construction of that dug well, before it was completed and stoned up?

A. I think not.

C. Q. 130. How long was it before you was there again? State in weeks and days, as near as you can.

A. Shortly after it was finished; perhaps from a week to ten days from this time.

3699 C. Q. 131. Who was there then?

A. No one that I remember; I went alone.

C. Q. 132. What time of day was it?

A. Some time in the afternoon, I should think, as nigh as I can remember; it was Sunday, I think.

C. Q. 133. Describe just what you said there at that time in relation to this well.

A. They had the pump in as they usually have them in wells— trough out on the south. I took hold of the pump and pumped some water.

C. Q. 134. Is that as full a description as you can give of the well as you saw it at that time?

A. That what I see at that time?

Q. 135. Question repeated. Please answer directly.

A. The well seemed to be in good working order; that is
3700 is all I have got to say, any further than what I have said
before. Descriptions? I know not what he wants furthermore.

C. Q. 136. Do you know the meaning of the word "description?"

A. I think I do. The difference in the way to know what he wants to get at—whether he wants to know a description of the ground or the well or the platform or other things around. I would like to be asked a description of one thing at a time.

C. Q. 136½. Didn't I ask you to give me a description of the well as you saw it at that time, referring to the time that you first saw it after it was dug and stoned?

A. I didn't understand that you wanted a description of the well part, but as he wants a description of the well, as nigh as I know it was dug and stoned up like ordinary wells; and if he wants the descriptions any further I would like to know which thing he wants the description of.

C. Q. 137. Have you given me as full a description of the well as you can, as you saw it at that time?

3701 A. As far as I can; without he asks how it was stoned or
how the platform or something containing this well, and I'll try to answer his questions.

C. Q. 138. What do you mean when you say in your answer, "something containing this well?"

A. Whether it was in the stoning or the platform or the
3702 ground that he wanted the description, I couldn't tell which;
whether the ground around or the well, I couldn't tell which. I want to know what he means—whether he wants a description of the ground or pump, or what he means by containing of the well.

C. Q. 139. How long were you at the well at that time?

A. As nigh as I remember, it was from ten to twenty minutes.

C. Q. 140. What was your business there at that time?

A. Over to see how the pump worked.

C. Q. 141. How did it work?

A. As ordinary pumps do when they are first put in.

C. Q. 142. How do ordinary pumps work when they are first put in?

A. Rather harder than they do after they have been in a spell.

C. Q. 143. What kind of a pump was this?

A. I think it was an iron pump, or else it was a wooden one, and
an iron one in the other well. There was two wells, and I
3703 couldn't say, about 40 or 50 rod- apart. I couldn't say which
was in which well.

C. Q. 144. Where was the other well just referred to?

A. Somewheres near forty rods south of it; a little west of south, I think.

C. Q. 145. In Mr. Tallman's lot?

A. Yes, sir.

C. Q. 146. What become of that well?

A. Filled up.

C. Q. 147. About when?

A. Not far from eight to twelve years ago, as nigh as I remember.

C. Q. 148. When was it dug?

A. I can't answer that question.

C. Q. 149. Give me the time as near as you can, or the length of time you have known of it?

A. As near as I remember, it is about thirty years ago.

C. Q. 150. That well was there in operation before the well was dug in 1859, was it not?

A. I think it was.

C. Q. 151. For what purposes was that used?

A. Pumping water to supply cattle.

C. Q. 152. Was that a good, practical well?

3704 A. I don't understand what he means by "practical" well.

Proceedings here adjourned until 1.30 p. m., April 17th, 1880, at this place.

1.30 p. m., April 17th, 1880.—Convened pursuant to adjournment. Present: As before.

Cross-examination of D. C. Callen resumed:

C. Q. 152. What kind of a pump do you now remember of seeing on this last well spoken of when you first saw it?

A. I think it was an old-fashioned wooden pump at first; I think it was made at Little York.

C. Q. 153. Bucket chain or suction pump?

A. Suction pump.

C. Q. 154. And was that pump used there from 1850 to 1858 or '9?

A. At different times.

3705 C. Q. 155. How far was that well from the east and west road just south of where the windmill well was?

A. From one to two feet from the fence, as near as I can remember; it might have been three; it was anywheres from twenty to thirty rod- east of the north and south road, and was north of the east and west road.

C. Q. 156. How deep was that well?

A. From four to eight feet.

C. Q. 157. Platform over it?

A. Yes, sir.

C. Q. 158. How high did the pump come above the platform, and what was the size of the pump?

A. Common high*th*; from three to four feet; I should think the top was from seven to eight inches through; it might have been an inch larger; it is easy to be mistaken on such a matter so long ago as that.

3706 C. Q. 159. How long was that pump used there in that well; up to what time?

A. Anywheres from three to seven years; at particular times in the season it was dry part of the time.

C. Q. 160. About what year was that particular pump abandoned?

A. From '57 to '58.

C. Q. 161. Then what was done with it?

A. It was throwed one side.

C. Q. 162. And another was put in its place?

A. There was.

C. Q. 163. What kind of a pump was that?

A. The two pumps was put in the two wells; one, I think, was
an iron pump and the other a wooden pump, and which one
3707 was the wooden pump I couldn't say; they was both put in
the same year, 1859; the well where the windmill afterwards
was run dry and Mr. Tallman put another one in (another pump)
the old well when the upper one (the one where the windmill afterwards was) went dry to get water for his stock, and that went dry then.

C. Q. 164. Then water was furnished for his cattle from the well where the windmill afterwards was until it became dry; then he put a pump in the well by the road and watered his cattle there until that became dry, did he not?

A. Yes, sir.

C. Q. 165. How long did the second pump remain in the well by the road?

A. From thirty to sixty days, until the well went dry.

C. Q. 166. And you cannot state positively whether that was a wooden or iron pump, can you?

A. I cannot, as they had the two pumps in about the same
time in the spring. I think one was an iron pump and
3708 the other was a wooden pump.

C. Q. 167. You say you cannot, for they had the two pumps in about same time in the spring; what time in the spring do you refer to?

A. From the middle of April to the last of June.

C. Q. 168. Can't you tell any nearer than that?

A. One was put in, I should think, about the first of May, the other some time the last of June.

C. Q. 169. How long was the pump used in the well by the road for watering cattle?

A. The last pump was used not far from thirty days, before it became dry.

C. Q. 170. Then what became of this pump?

A. I couldn't say; it was removed from the well.

C. Q. 171. Was there ever a pump used in that well afterwards?

A. Not that I remember.

C. Q. 172. Describe the wooden pump that was used in either of those wells in 1859.

A. I think the wooden pump was a "Watertown," or similar to
that fashioned pump, about three and a half feet high from
3709 the platform; a suction pump, about six to seven inches
through it, I should think.

C. Q. 173. Was it a new pump or one that had been used?

A. I couldn't say.

C. Q. 174. Painted?

A. I think it was; I think it was a blue pump.

C. Q. 175. What color was the wooden pump in the well by the road that you first saw there?

A. Wood color; it was never painted.

C. Q. 176. What make was that wooden pump or whose make painted blue?

A. I couldn't say whose make it was.

3710 C. Q. 177. Describe the iron pump that was used with either of those wells that you first saw?

A. I couldn't describe the iron pump as I did the other, for I paid no particular attention to the iron pump, for I was a-using that kind of a pump.

C. Q. 178. What kind of a pump were you using?

A. A suction pump.

C. Q. 179. Wood?

A. Yes, sir.

C. Q. 180. State the color and make—that is, whose manufacture?

A. Blue; I think Mr. Smith's make, of Little York, that I had in my well at the time.

C. Q. 181. Was the pump that you had at that time and the wooden one that was in one of these Tallman wells in 1859 round or square as it appears above the ground?

3711 A. Mine was partly round and partly eight square; I think that his was about the same.

C. Q. 182. Can you give any better description or any description of the iron pump that you first saw in one of these Tallman wells?

A. I don't know as I can give any description of the iron pump.

C. Q. 183. How many times did you see it that you will swear positively to?

A. Two or three times.

C. Q. 184. Then what became of it?

A. I don't know.

C. Q. 185. Describe how the platform was made, as it appeared to you, on the well dug in '59, when you first saw it?

A. Some plank were laid down with stringers under each end.

C. Q. 186. How long were the stringers, and their size?

A. Length from four to six feet; the size I don't know, for they was in under the plank—as they stuck out a little on each edge 3712 of the plank; judging from that they was from four to six feet long.

C. Q. 187. If they stuck out as you say they did why can't you tell something of their size?

A. I don't know as I took any notice of the size of them.

C. Q. 188. You say you didn't take any notice of the size of them; did you take particular notice as to the length?

A. Judging from the size of the platform.

C. Q. 189. Was the platform about six feet square?

A. I think not.

C. Q. 190. About how large square was it?

A. I think it wasn't square.

C. Q. 191. Were the stringers imbedded in the ground?

A. I think they laid on top of the ground—level.

C. Q. 192. Give the size of the platform as near as you can.

A. I think it was about six feet long; the width from four to five feet.

C. Q. 193. Were the plank nailed to the stringers?

A. One of them wasn't; the others I couldn't say.

3713 C. Q. 194. And still you can't say whether it was a wooden or iron pump used with the well at that time, can you?

A. I cannot; as — the answer given before, and the two being in about the same time.

C. Q, 195. What was the material of the pipe that went down from the pump to the water in the well at that time?

A. I couldn't say.

C. Q. 196. Why can't you say?

A. I don't remember of taking any notice of it.

C. Q. 197. Can you state the material of the pipe that was in the well by the road at that time?

A. I could not.

C. Q. 198. What kind of a platform did that well by the road have on?

A. Plank.

C. Q. 199. Made substantially as the other?

A. There was considerable difference in the size of the platforms; I think not.

C. Q. 200. State its size and how it was made.

A. With stringers on two sides about three to four feet long; the planks that was on was about three feet and a half wide—the covering I mean.

3714 C. Q. 201. Did you look in the well when you was there a week or ten days after it was dug?

A. I did.

C. Q. 202. How much water was in it?

A. Judging from the appearance, there was two to three feet.

C. Q. 203. How far was it from the water up to the planks?

A. As nigh as I could say, from five to eight feet.

C. Q. 204. Was that same platform used at that well after the windmill was erected?

A. I could not say whether the plank or the stringers was or not, for I wasn't there when it was overhauled.

C. Q. 205. Did it have the same appearance as the one that you saw there when the windmill was erected?

A. I think not.

C. Q. 206. State the difference.

A. The platform, when the windmill was put up, was laid on the stringers to the windmill frame, as nigh as I remember.

3715 C. Q. 207. Will you swear positively that they did? Please answer, yes or no.

A. They did; to the best of my knowledge now.

C. Q. 208. Was the platform the same size as the one that was there when the well was first dug?

A. I think it was a little wider and about the same length.

C. Q. 209. How many sills were there to this windmill frame?

A. There was two that run east and west; I think two that run north and south.

C. Q. 210. How long were those sills to the windmill?

A. Judging from the looks, they was not far from ten to twelve feet long east and west.

C. Q. 211. How far the other way?

A. I couldn't say.

C. Q. 212. Give your best judgment.

3716 A. I could not say as there was any sleepers, as I said before, or what their length was, although there might have been sleepers there.

C. Q. 213. How far were those sleepers apart that ran east and west?

A. From five to seven feet.

C. Q. 214. Were there posts morticed into these sleepers?

A. I couldn't say whether they was morticed in or set and toenailed, for I never examined them close to see.

C. Q. 215. There were four posts to the frame of the windmill; how far were they apart north and south?

A. Anywheres from five to seven feet at the bottom.

C. Q. 216. How far east and west?

A. About the same; I should think it was nearly square.

C. Q. 217. How long were the posts?

A. Not far from twelve feet.

C. Q. 218. How far apart were the posts at the top?

A. Not far from two feet, judging from standing on the ground.

3717 C. Q. 219. How was the frame made?

A. With four posts standing up and down, girted across from one side to the other to make it solid, the girts being one end lower than the other, making it bracing.

C. Q. 220. Was there a shaft to the windmill?

A. I think there was.

C. Q. 221. How long?

A. Which shaft do you mean?

C. Q. 222. Give me the length of each of them.

A. One, I should think, not far from two feet; the other, I should think, some shorter.

C. Q. 223. How and where was the longest shaft fastened?

A. To the windmill; what I call the long shaft is what run out that the tail of the windmill was fastened to.

C. Q. 224. Did that shaft turn round?

A. In which way do you mean? The end of the shaft turned round with the wind, but it did not roll over nor nothing.

3718 C. Q. 225. The other shaft referred to was fastened to what and how?

A. The gearing to this windmill.

C. Q. 226. How was that fastened to the frame?

A. I couldn't say.

C. Q. 227. Can you describe the windmill? And, if so, describe it.

A. I don't know that I could so you could understand it.

C. Q. 228. How many wings did it have?

A. I couldn't say.

C. Q. 229. Give me your best recollection of the number.

— From six to a dozen.

C. Q. 230. How large were the wings?

A. I couldn't say.

C. Q. 231. Please give your best recollection of their size.

A. O, from ten to eighteen inches.

C. Q. 232. How long?

A. I have answered the size as far as I remember.

C. Q. 233. What were the wings made out of?

A. Sheet iron, to the best of my knowledge.

C. Q. 234. Did you mean to say that they were ten to eighteen inches square?

3719 A. Yes, sir.

C. Q. 235. How long were the arms to those wings?

A. They might have been a little over two feet and they might not, but, judging from the ground, they was not far from two feet.

C. Q. 236. Of what material were the arms?

A. Iron, if I remember correct.

C. Q. 237. How far was it from the outside of the wing to the outside of the wing on the opposite side of the shaft?

A. I don't know what shaft you mean. Please ask it in some other form.

C. Q. 238. How were the arms fastened to the windmill—that is, to what were they fastened?

A. I couldn't say to what part or how.

C. Q. 239. Please state as near as you can how far it was from the outside of the wing to the outside of the wing on the opposite side?

A. From four to five feet. I think the wings stuck out from four to six inches beyond what the arms did.

Proceedings adjourned by consent until 10 o'clock a. m., Thursday, April 22d, 1880, at this place.

3720 THURSDAY, *April 22d*, 1880—10 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of DE WITT C. CALLEN resumed:

C. Q. 240. Who was digging the well when you were there and first saw them at work on this well?

A. Getman (Jefferson Getman) and, I think, Thomas Perry. I have heard that Thomas Perry is dead. No one else that I remember.

C. Q. 241. How long were you at the well at the time you say you saw it first after it was dug?

A. Five to ten minutes; it might have been twenty.

C. Q. 242. Have you any recollection of the length of time now?

A. Merely went to see how the pump worked and staid a few minutes.

C. Q. 243. Question repeated.

A. Yes, sir.

3721 C. Q. 244. And did you go to see the pump and how it worked at that time; and, if so, how did the pump work, good or bad?

A. I object to answer the question the second time on cross-examination.

C. Q. 245. Do you refuse to answer that question?

A. I do.

C. Q. 246. Did you go to see the pump and how it worked at that time?

A. I did.

C. Q. 247. And that was your express object, was it?

A. Yes.

C. Q. 248. And still you are unable to state at this time, on reflection, whether it was a wooden or iron pump, are you?

A. I be.

C. Q. 249. Were you ever down in that well?

A. No, sir.

C Q. 250. Did you ever measure the depth of that well with a measure?

A. No, sir.

C. Q. 251. Then, of your own knowledge, how are you able to state its depth unless it is given from your estimate of the distance?

3722 A. I estimated it by the looks, as a man would an eight-foot board or a twelve-foot board by looking at it.

C. Q. 252. How were you able to tell that there was three or four feet of water in it at that time, of your own knowledge?

A. I object to answering the question, for I have not said so.

C. Q. 253. How were you able to tell the number of feet of water that was in it at that time, of your own knowledge?

A. Judging from the well and seeing it after it was dry.

C. Q. 254. When were you next there to the well after this time just spoken of?

A. The last of July or first of August. Do you mean the time when I saw the water there or another time? I misunderstand the question.

C. Q. 255. I mean the time that you saw the water there; the first time that you saw the well after they were digging it, being

3723 the only times that you have testified that you saw the well, in response to questions on your cross-examination.

A. The second time that I was at the well was along the last of May. I was there three times along about that time; two or three times.

C. Q. 256. My question is, when were you there the third time, not the second time, as you have already testified that the first time was when they were digging the well?

A. I would like to know which you mean—when it was dug or after the windmill was put up?

C. Q. 257. Aren't you able to understand that question, and

3724 wil you please pay attention to the same when the notary reads it, and give a direct answer?

A. Haven't I answered that question the second time?

C. Q. 258. Question repeated.

A. I have answered the question the last of May and object to answering it any further.

C. Q. 259. How long was that after you say that you was to this well, after it was first dug?

A. Not far from a week to ten days.

C. Q. 260. And that was the third time that you ever saw this well, either while it was in the process of being dug or after it was finished, was it not so?

A. Yes, sir.

C. Q. 261. Who was with you at the well at that time?

A. I don't know as there was any one.

C. Q. 262. Do you remember of any one?

A. I don't remember as there was any one.

C. Q. 263. What was your business there that time—the third time?

A. I think I was crossing on my way home.

3725 C. Q. 264. Will you swear positively that you were crossing on your way home? Please answer directly, yes or no.

A. I was, to the best of my knowledge.

C. Q. 265. Have you a distinct recollection of it?

A. I think I have.

C. Q. 266. You say you think you have?

A. I have, to the best of my knowledge.

C. Q. 267. You was going from what place to what place?

A. From the depot home.

C. Q. 268. What was your business at the depot?

A. I couldn't say now; I usually went over to the depot—occasionally—being the nighest way across from the depot home.

C. Q. 269. Did you stop at the well at that time?

A. Not but a short time.

C. Q. 270. How long did you stop there at that time?

A. Not far from five minutes.

C. Q. 271. Well, did you stop there to try the pump and see how it worked?

A. No, sir.

C. Q. 272. What did you stop there for?

A. I couldn't say now.

C. Q. 273. Did you have any business there?

3726 A. I object to answer the question on the ground that I have answered it before.

C. Q. 274. Do you swear positively that you have answered that question before as to the third time you were there at the well?

A. I have, if I understood your question right.

C. Q. 275. Do you refuse to answer the question, as to what your business was there at that time—the third time?

A. I refuse to answer the question on the ground that I merely stopped there as I was on my way home, as I have stated before.

C. Q. 276. Did you have any business when you was there at the well at that time, that you now remember of?

A. No, sir.

C. Q. 277. How long was it after you was at the well the third time before you saw it the fourth time?

A. I couldn't say; I was frequently across the lots and see the well standing there, perhaps once a week, and maybe not more than once in a month, until after a new well was put down; do 3727 not remember of going to the well to look at it till after the well was overhauled after these three times.

C. Q. 278. What did you observe about the pump and well the third time you were there? Please state it concisely.

A. The pump stood there; the platform was there; the trough was there.

C. Q. 279. Did you pump water at that time?

A. I wouldn't say as I did.

C. Q. 280. What is your best recollection?

A. I think not.

C. Q. 281. Do you remember distinctly of looking into the well at that time?

A. No, sir.

C. Q. 282. Have you any recollections of looking into the well at that time?

A. I haven't, although I looked into the well two or three times at different times.

3728 Proceedings here adjourned until 1.30 o'clock p. m., April 22d, 1880, at this place.

April 22d, 1880—1.30 o'clock p. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of De Witt C. Callen resumed:

C. Q. 283. You say you was at the well for the third time when you came across from the depot. Have you a recollection of being there after that and before the windmill was erected sufficient to recollect anything that you did or distinctly saw?

A. Not that I remember of now more than to pass by it.

C. Q. 284. On either of these occasions prior to the time when the windmill was erected did you see or meet any one at the well aside from the time when they were digging the well?

3729 A. I see them when they started to drive the pipe.

3730 C. Q. 285. Did you meet or see any one at the well after the time that they were digging it and — the time when they were there driving the pipe, as you say, that you now remember of?

A. No, sir.

C. Q. 286. Did you see the pump at the time that you were there when they were driving the pipe that you saw at the well prior to that time?

A. No, sir.

C. Q. 287. Then you weren't at the well at any time when any one else was using the pump prior to the time that the pipe was put in, as you have testified, were you?

A. Only the time when they was digging it, when it was down about two feet.

C. Q. 288. You don't pretend to say that they were using the pump at the time that you were there when they were digging the well, do you?

A. No, sir.

3731 C. Q. 289. Then you must have misunderstood question 287, which I ask the notary to repeat.

A. No, sir.

C. Q. 290. Didn't you swear, in answer to questions put to you by defendant's counsel, that you saw water there and saw them pump water; also was there again in May and June and saw them pump water, and was there two or three times after that and saw them pump water prior to the time that the well was dry?

A. Not that I remember of.

C. Q. 291. In answer to cross-question 15 you state that you saw it (referring to dug well) when it was down 2½ or 3 feet, when they were digging it; in the next question you were asked, "When next did you see anything about it and what did you see?" Your answer was, "I saw water there and saw them pump water; that was all I saw at that time;" and the next question put to you was, "When next did you see this well and what did you see?" Your
3732 answer being, "I was over there in the latter part of May
and first of June and see them pump water three or four times; it was right close by; I was there two or three times after that, of Sundays, and see them pump water." Now, Mr. Callen, I ask you whether those answers are true.

A. I must have misspoke when I said I see them pump water. I don't remember of saying so.

C. Q. 292. Is that the only answer that you have to that question?

A. Yes, sir.

C. Q. 293. You say that you don't remember of seeing any one pump water; isn't it also true that you didn't see any one at the well when the pump was in it in condition to pump water prior to the time that you say they were driving the pipe?

3733 A. I don't remember whether I saw any one to it or not.

C. Q. 294. What was Mr. Tallman and Mr. Getman doing when you first saw them on the occasion that you say that they were driving the pipe in the well?

A. Mr. Tallman stood partly down in the well on some kind of a blocking that raised him up anywheres from three to four feet, holding the top end of the pipe with one hand; Mr. Getman was driving it; a scantling on the end of it.

C. Q. 295. Then he was driving when you first got there, was he?

A. He was; he said he had just commenced.

C. Q. 296. Did he continue to drive all the time while you were there?

A. No, sir.

C. Q. 297. Did Mr. Tallman come out of the well while you were there?

A. Not that I remember of.

C. Q. 298. Did he continue to hold the scantling on the pipe while you were there, as you remember?

3734 A. No, sir.

C. Q. 299. What did Mr. Getman do while you were there except to drive on this pipe or scantling?

A. Nothing, that I remember of.

C. Q. 300. What did Mr. Tallman do except to steady the pipe and hold the scantling while you were there?

A. He got off from his blocking and got down into the well; he took hold of the pipe and worked it around as a man would to make a hole with a crowbar; he raised it up and jammed it in again.

C. Q. 301. Then they had been driving it down some before you got there, had they not?

A. I think I see them strike the first blow, judging from the appearance, as I was off, perhaps, a rod or two rods, walking up to the well.

C. Q. 302. Then what do you mean on your direct examination
when you say that "I did not go down into the well to see
3735 whether it was on the ground or drove in," in response to
question 25, "Was the pipe in the ground in the bottom of
the dry dug well when you got there?"

A. Thinking of it more, I remember of Mr. Tallman, as I walked up, getting off from the blocking, working this pipe—raising it up and setting it back in again.

C. Q. 303. Then, you did look into the well to see when you first got there, did you not?

A. I did.

C. Q. 304. And you saw the pipe wasn't on the ground, did you not?

A. I did, by his getting down and working it and raising it out.

C. Q. 305. How far was that blocking from the top of the well that Mr. Tallman stood on?

A. From three to four feet, as nigh as I remember.

C. Q. 306. When you say "the top of the well" do you mean level with the surface of the earth on the outside?

3736 A. When I say so I do.

C. Q. 307. Was Mr. Tallman standing up when you saw him there on that blocking holding the pipe and scantling on it?

A. He was.

C. Q. 308. Then the top of the pipe came up nearly even with the top of the well, did it not?

A. No, sir.

C. Q. 309. Cross-question 305 and answer read to the witness, and he is asked if the same is true.

A. I meant, when I spoke, from the bottom of the well.

C. Q. 310. Mr. Callen, it appears here several times that you have had to correct your answers by reason of subsequent testimony given by you, where you have stated that you didn't understand the question. Is your memory defective and is your knowledge of the English language such that you don't understand the questions put?

A. I am hard of hearing, sir; at times I am not able to hear any one across the room in ordinary talk. My memory is good; I
3737 understand the questions when put in a way so that I can understand them.

C. Q. 311. Have you stated either to the notary or to counsel in presence of the notary, at any time during this examination, that you were hard of hearing or that you didn't hear the questions, and for that reason ask to have the questions put to you in a louder tone of voice?

A. No, sir.

C. Q. 312. Describe how that blocking was made.

A. I didn't go down to see.

C. Q. 313. Couldn't you see without going down?

A. I didn't take no notice of it to see how it was made; I see that there was something that he stood on there and stepped down off from.

C. Q. 314. How long was that scantling?

A. From three to five feet.

C. Q. 315. Can't you tell any nearer than that?

A. As nigh as I can remember close, it would be four feet; it might vary a little either way.

C. Q. 316. You never saw that pipe before that day, did you?

A. No, sir.

3738 C. Q. 317. Never saw it out of the well to your knowledge, did you?

A. No, sir.

C. Q. 318. How far did the scantling extend above the top of the wall when you first saw them driving?

A. It might be six to eight inches, so that a man could hit it with a maul.

C. Q. 319. You say Mr. Tallman got down off the blocking just after you got there. Did he get back again before you left?

A. He did.

C. Q. 320. How long was he off from the blocking?

A. From three to five minutes, as nigh as I remember.

C. Q. 321. Did he stop to talk with you?

A. I don't know as he stopped; we talked.

C. Q. 322. When did he borrow the maul?

A. Sunday, late in the afternoon, perhaps five or six o'clock.

C. Q. 323. What day was this pipe driven which you have testified to?

A. Tuesday, as nigh as I remember.

C. Q. 324. Describe that trough that you say you first saw there at the well.

A. I should think the trough was about eight feet long,
3739 not far from fifteen inches high, and, I should think, about eighteen inches wide.

C. Q. 325. Did Mr. Tallman take the maul home with him or only to the well that Sunday?

A. I don't know.

C. Q. 326. Mr. Tallman had a grist-mill or a saw-mill at that time, didn't he?

A. Yes, sir.

C. Q. 327. What time of the year was this? State as near as you can, giving the month and day that you were there at the well, when Mr. Tallman was putting the pipe in.

A. It was about the 10th or 15th of September, as nigh as I remember.

C. Q. 328. Didn't you state on your direct examination that it was the last of July or the first of August?

A. Not that I remember.

C. Q. 329. The first time that you saw the well when it was dry was when they were putting the pipe in, wasn't it?

A. I might have seen it before and I might not.

3740 C. Q. 330. That was the first time that you now remember, wasn't it?

A. That I think of now. I might have seen it before; I was across the lot quite often.

C. Q. 331. I ask you for your present recollection, not what you might have seen. Question repeated.

A. Yes.

C. Q. 332. On your direct examination, in referring to this well, you say, "Yes, sir; it was dry. I should say it was not far from the last of July or the first of August that it was dry." Is that true?

A. Yes, sir; for they took and put a pump into the other well and said it was dry, and watered their stock at the other well.

C. Q. 333. About how many blows was given to this scantling before Mr. Tallman got off from this blocking that you saw?

A. Three or four blows.

C. Q. 334. What had you been doing that day?

A. Am I obliged to answer that question according to law? I
was getting ready to go off to thresh. I went to see Mr. Tall-
3741 man about my maul was the way that I happened to be there.

C. Q. 335. Where did you get that maul?

A. I think I bought that *to* McLean.

C. Q. 336. Did you get your threshing-machine there, too?

A. Part of it.

C. Q. 337. What part?

A. The horse power.

C. Q. 338. When and who of?

A. I bought two or three powers of him—Mr. Wakely.

C. Q. 339. I am referring to the power that you had in 1859?

A. I think I bought it in 1858 of Mr. Wakeley, or near that time; it might be a year before.

C. Q. 340. And you got the maul at that time?

A. I think I did.

C. Q. 341. Where did you get the threshing machine that you had in 1859?

A. My brother bought it of Perrigo and Avery.

C. Q. 342. Give your brother's name & the date of purchase.

3742 A. Martin L. Callen; 1856, I think; the last of July.

C. Q. 343. Was that the first horse power or threshing machine that you or your brother owned?

A. No.

C. Q. 344. How many blows was given this pipe or scantling after Mr. Tallman got up on the blocking?

A. Three to five blows.

C. Q. 345. Then what did they do?

A. I couldn't say, as I left then.

C. Q. 346. Did you take the maul with you?

A. No, sir.

C. Q. 347. When did you get it?

A. That night or the next night; he fetched it home.

C. Q. 348. About how far would he drive the pipe each blow?

A. From an inch and a half to two inches.

C. Q. 349. Was the well in the same condition then, excepting as to the water in it, as it was when you saw it the second time?

A. It was; all but the pump was taken out and the plat-
3743 form was off from over, as I remember.

C. Q. 350. Don't you know, Mr. Callen, that just before the time that you say this pipe was put in that the stones were taken out of the well and it was dug deeper?

A. Not, only by hearsay.

C. Q. 351. How long was it before you went to this well after the fourth time that you have mentioned?

A. A week or ten days, as I swore on my straight examination, according to the way I take it, from my count.

C. Q. 352. What do you mean "from my count?"

A. From when the windmill was put up; the first time I was there after the windmill was put up it was about a week or ten days.

C. Q. 353. You have testified on your cross-examination that you was there when they were digging the well, first; second, on the Sunday when it was completed; third, when you came across from the depot, and fourth when they were putting in that pipe.
3744 Now, from the time of putting in the pipe how long was it before you were there again?

A. A week to ten days.

C. Q. 354. Is the answer true, then, that you gave to question 28, when you say "It was some two or three weeks after, I should think?"

A. I don't remember giving that answer as to the second time after the well was drove.

C. Q. 355. Question repeated and the witness is requested to pay strict attention and see if he can understand one question put.

A. It might have been a week or ten days or a fortnight.

C. Q. 356. Question 354 repeated, and insert at the end of the question that I was there first after the pipe was put in.

A. I might have spoke so.

C. Q. 357. If you did speak so was it true?

A. It was true; it was near the time.

C. Q. 358. What day of the week was it?

A. I think it was Sunday.

3745 Proceedings here adjourned until 8.30 o'clock a. m., Friday, April 23d, 1880, at this place.

FRIDAY, *April 23d*, 1880—8.30 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of DE WITT B. CALLEN resumed:

C. Q. 359. Have you experienced any difficulty in hearing the questions put to you on this examination?

A. I have.

C. Q. 360. Why haven't you stated that fact to the notary and requested him to read them louder, then?

A. Because I thought I could get along without asking any such thing of the notary.

C. Q. 361. Then you have been giving testimony under your solemn oath when you haven't but partially understood the 3746 questions or some of them, when you have been unable to fully hear the question, and at the same time haven't said a word to any one connected with the examination in regard to it. Is not that true?

A. No, sir. I have tried to understand the questions before answering and had them read over to understand them.

C. Q. 362. Will you swear positively that you have made answer to a single question that you did not hear it fully so as to enable you to make an intelligent and correct answer?

A. I couldn't say. I have had them read over so as to understand it.

3747 C. Q. 363. You have had them read over so as to understand the meaning of the question, haven't you; and also haven't counsel and notary assisted you in that by explaining to you many of the words and giving you their meaning?

A. They have on some of them.

C. Q. 364. You say this well in question became dry the last of July or the first of August; can you give the date any nearer when it became dry first?

A. Not that I remember of now.

C. Q. 365. The pump wasn't put in the well by the road until the well in question became dry, was it?

A. I couldn't say exactly as to the date.

C. Q. 366. Can you tell the date when the pump was put in the well by the road?

A. No, sir.

C. Q. 367. Give me the date as near as you can?

A. Not far from the first of July. It might have been a month before, or a month after, or six weeks before.

3748 C. Q. 368. Then, what do you mean when you have testified heretofore that the well in question became dry the last of

July or the first of August, when they put a pump in the well by the road, which they used about a month, when that well became dry?

A. I mean that I have answered him and told him as nigh as I can recollect.

C. Q. 369. Mr. Callen, will you please explain the inconsistancies in your answers to the questions above?

3749 A. I might vary a little on these answers at different times.

C. Q. 370. Which one of those answers are true, according to your best recollection?

A. I think the answer where I said the last of May or first of June is as near the answer as I can get—trying to tell the time.

C. Q. 371. Then, the pump was put into that well by the road about four or five weeks before the other well became dry, wasn't it?

3750 A. Not that I know of.

C. Q. 372. Will you please explain in your own way, without the aid of any question, fully and at large, just when those pumps were put in, when the wells became dry, where the pumps were taken from, and where they were taken to, and any words that you do not understand their meaning please ask the notary to explain them to you?

A. The first one, where the windmill afterwards was, was put in about the first of May, not far from that time; the next one was put in not far from the last of July; the well where the windmill afterwards was became dry about the time the pump was put in the well by the road; the well by the road became dry some time in July, I think; the well by the road became dry not far from thirty days after the pump was put in it. I couldn't say where
3751 the pump that was put in the well where the windmill afterwards was was taken from. I don't know where it was taken to. I don't know where the pump that was put in the well by the road was taken from, nor where it was taken to afterwards.

C. Q. 373. Then, as I understand, the well that was dug in 1859 became dry about the last of June or the first of July, instead of the last of July or the first of August, as you have heretofore testified. Am I correct?

A. It was near that time.

C. Q. 374. In answer to direct question 73 you say they laid the block on top of the pipe and struck on top of the block to drive the pipe; also in answer to question 72 you say one stood and held the block and the other drove with the maul. Now, what do you mean on your cross-examination by changing your testimony and now say it was a scantling?

3752 A. I meant a scantling in the first place, for they couldn't reach a block on the pipe and stand on the ground at that depth—some four or five feet.

C. Q. 375. Do you know the difference between a block and a scantling?

A. Yes, sir.

C. Q. 376. And now you solemly swear it wasn't a block used, but a scantling, do you?

A. I have sworn to it once before.

C. Q. 377. Question repeated.

3753 A. To the best of my knowledge.

C. Q. 378. On your direct examination you say it lay on top of the pipe; on your cross-examination you say the end of the scantling stood on the end of the pipe. Why did you change your answer?

A. Because I merely spoke so.

C. Q. 379. Question repeated.

3754 A. When we wish to pound on an iron to save battering we often say we want to lay a block on when we have to stand it on the end in using it. As setting a box in a wheel, we often speak that we've got to put a block on the end, and I might have said "laid on the pipe."

C. Q. 380. Did you ever have drunken men work for you; and, if so, when?

A. Yes, sir; in 1859.

C. Q. 381. Any other years?

A. Not men; I have had one man at a time since.

C. Q. 382. What were the names of these men that were drunk in 1859 there?

3755 A. Pete More and Miles Topping.

C. Q. 383. Where do they now live?

A. I don't know.

C. Q. 384. How long did they work for you that summer?

A. One worked longer than the other one did; one worked not far from two weeks; the other one, I think, about two months at this time.

C. Q. 385. When did the one commence to work for you that worked two months?

A. From the first to the tenth of August, as near as I remember.

C. Q. 386. What would he get drunk on?

A. Liquor and cider.

C. Q. 387. When did the other man commence work for you?

A. In September, I think; he worked through the time of camp-meeting and a little more.

C. Q. 388. What were — to work at for you?

A. Threshing and taking care of horses and other chores.

C. Q. 389. When was this windmill erected?

A. In September, I think; the latter part of September, as nigh as I remember now.

3756 C. Q. 390. How long was it after you saw the pipe in the ground before the windmill was erected?

A. It might have been a week or ten days before I see the frame standing over there.

C. Q. 391. How long after you saw the pipe before you went over to the well and saw the windmill?

A. Ten or fifteen days; it might have been a little longer or a little shorter.

C. Q. 392. Who went with you?

A. No one that I remember of now.

C. Q. 393. How long were you there?

A. Five to twenty minutes.

C. Q. 394. Who did you see there?

A. I don't know as anybody.

C. Q. 395. Was the well in working order?

A. For all—anything that I see.

C. Q. 396. Describe the platform as you saw it at that time over the well.

A. The plank laid across north and south, if I remember
3757 right, and the stringers laid east and west. As far as stringers
to the north and south, I don't know whether there was any
or not—as ordinary platforms is fixed.

C. Q. 397. How many plank were there, and were they laid close together?

A. Not far from five plank, as nigh as I remember; laid as close as a man would naturally lay down plank together.

C. Q. 398. What was the length of the pitman of the windmill?

A. Not far from sixteen feet, as nigh as I can remember. It might have been a little longer, or a little shorter.

C. Q. 399. How was it fastened at the lower end, and what to?

A. There was a round piston shaft to the pump, fastened onto the end of it.

C. Q. 400. How long was the iron piston shaft?

A. I couldn't say.

C. Q. 401. How much of it came up above the top of the pump, as near as you can tell?

A. From six to eight inches I should think, standing on
3758 the platform above, looking down into the well.

C. Q. 402. State the size of this pitman.

A. Not far from an inch through and an inch and a half the other way. I think it was of ash.

C. Q. 403. What arrangements were there where the pitman went into the well through the platform?

A. I don't know as there was any arrangements there.

C. Q. 404. Describe how the plank were fixed with reference to this pitman.

A. Nothing but a hole in the plank, as I see.

C. Q. 405. How large was that hole?

A. I think it was bored with an inch and a half auger, or near that size.

C. Q. 406. Was it a round hole through the plank?

A. I think not, after it was finished. It was a hole large enough
to let a pitman about one by one and a half inches play up and
3759 down without rubbing much on the sides. That's about as
near as I can get it.

C. Q. 407. How was the pump fastened in the well?

A. I don't know.

C. Q. 408. Was there any other holes through the plank than the one which the pitman went through?

A. I don't remember of any other.

C. Q. 409. What was the pump fastened to?

A. I couldn't say.

C. Q. 410. Why couldn't you say?

A. I wasn't down in the well to examine it.

C. Q. 411. What did you see in the well?

A. A scantling or a plank running from the platform down onto the ground and what they called a pump in there on top of this pipe.

C. Q. 412. Was there anything fastened to this stick of timber, and, if so, what?

A. It looked as though the pump was fastened to it; it set up close to one side of the pump.

C. Q. 413. How far was the pump from the platform of the well?

3760 A. From seven to nine feet, as nigh as I remember; it might vary a little either way.

C. Q. 414. When were you at the well next after that, that you now remember of?

A. Not far from two weeks; it might have been three.

C. Q. 415. What was your business there then and who was with you?

A. No particular business, more than to see the pump work, and nobody was with me that I remember.

C. Q. 416. How long were you there?

A. Five to twenty minutes.

C. Q. 417. How and where did the water come from the pump and go to the trough?

A. Up through a pipe through the edge of the platform & bent over into a trough three or four feet or more from the well.

Proceedings here adjourned until Friday, April 23d, 1880, at 1.30 o'clock p. m., at this place.

FRIDAY, *April* 3d, 1880—1.30 o'clock p. m.

Convened pursuant to adjournment.

Present: As before.

3761 Cross-examination of DE WITT C. CALLEN resumed:

C. Q. 418. Describe the pipe that you saw in that well, fully.

A. It was a round iron pipe as nigh like a gas pipe as anything I could say; it had a thread cut on the top end of it.

C. Q. 419. That's all you saw about it, was it?

A. That I remember now.

C. Q. 420. Have you seen since that time what was represented to you as being that pipe?

A. No, sir.

C. Q. 421. When did you first observe the screw on the top of that pipe?

A. When they was driving it that day.

C. Q. 422. Inside or outside screw?

A. Outside the pipe.

C. Q. 423. You say it was when they were driving it; was it before or after Mr. Tallman got off from the blocking?

A. He took the scantling off and got down into the well, and I see it.

3762 C. Q. 424. And that you will swear to positively, will you, and that you cannot be mistaken?

A. Yes, sir.

C. Q. 425. How was the end of the pitman fastened to the windmill, and what to?

A. I couldn't say how it was fastened; the crank, as nigh as I remember.

C. Q. 426. Did the well have the appearance of having been dug deeper at the time they were working at this pipe?

A. I didn't take no notice, as I was there but a few minutes.

C. Q. 427. How many times were you at the windmill after it was erected?

A. I couldn't say.

C. Q. 428. State as near as you can.

A. Perhaps two, three, or four times right along within a month or six weeks; I was frequently across the lots from that time to this.

C. Q. 429. How many times did you observe the well and 3763 the way it pumped after that during that year?

A. I couldn't say.

C. Q. 430. Tell me about how many times, as near as you can.

A. Five or six times.

C. Q. 431. On your direct examination you say three or four times in answer to a similar question; are you answering these questions from your recollection, or is it merely guess-work and supposition that you are making such answers under oath?

A. From recollection; it was not far from three to six times that I crossed the lot; I never counted the times.

C. Q. 431½. How many times will you swear positively that you were there and observed the pumping of water at this well after the windmill was erected that fall?

A. From twice to half a dozen.

C. Q. 432. Was the trough full of water at each time?

A. Once it was; the remainder I couldn't say.

3764 C. Q. 433. How long or how many years after this was it before driven wells became of public use in the town of Preble?

A. I couldn't say.

C. Q. 434. State as near as you can.

A. Not far from five years, as nigh as I remember; it might have been longer.

C. Q. 435. Did you ever know of a driven well being made by reason of any one's having seen this well of Tallman's?

A. No, sir.

C. Q. 436. You were asked on your direct examination to state how the pump was arranged and secured. You say, "I can't say whether it was a plank or a platform that steadied it." Describe that platform.

3765 A. Laid down as any usual platform is for a well; not far from five feet one way and six the other—or seven.

C. Q. 437. Who lived in Mr. Tallman's tenement house at that time?

A. Mr. Perry, I believe.

C. Q. 438. Do you know of your own knowledge where Mr. Tallman got the windmill?

A. No, sir.

C. Q. 439. Where was this well situated with reference to the lots?

A. It was in the corner of one large lot—near the corner, three other lots coming up and cornering close by; it was in the southwest corner of the lot it stood in; I think there was nothing around to protect it, except the lot fences; there was no pasturing in the lot that year.

3766 Cross-examination closed.

Redirect examination:

R. D. Q. 440. You were asked on your cross-examination the following question: "You were asked on your direct examination to state how the pump was arranged and secured. You say, 'I can't say whether it was a plank or a platform that steadied it.' Describe that platform.' You answered: 'Laid down as any usual platform is for a well; not far from five feet one way and six the other—or seven.'" You did not mean that there was a platform down in this dry dug well, did you?

A. No, sir; it was a mistake; it run from the platform down into the bottom of the well which the pump was fastened to.

R. D. Q. 441. Then the only platform that was used after the windmill was put up was the one which was laid over the dry dug well, was it not?

3767 A. I couldn't say whether the same plank was used or not.

R. D. Q. 442. Was there any stream of water or lake or pond on the west side of the railroad on William E. Tallman's land where his cattle could obtain water, or did he depend entirely on wells for obtaining water for his cattle?

A. There was no water on the west side of his farm, excepting perhaps a week; as the snow was going off a little stream run down through these lots—of surface water; he had no other way of watering his stock but by wells or driving his stock to the creek.

R. D. Q. 443. Is there a lake or stream of water on your farm?

A. Yes, sir.

R. D. Q. 444. Previous to making this well by driving this pipe into this dry dug well and attaching a pump and operating it 3768 by a windmill, did William E. Tallman make application to you to buy a piece of your land so as to water his stock at the lake on your land?

A. He did.

R. D. Q. 445. Did you sell him any land for that purpose?

A. No, sir.

R. D. Q. 446. Why?

A. We couldn't agree on the price.

R. D. Q. 447. And after you could not agree, was it then that he went on and drove this pipe?

A. Yes.

R. D. Q. 448. You have been asked, on your cross-examination, as to whether or not anybody in the town of Preble made any driven well or wells similar to this one made by William E. Tallman. State whether or not you then knew or now know of any person who talked of or contemplated at that time driving a pipe as Tallman had done and obtaining water substantially by the methods he then practiced.

3769 A. No, sir.

R. D. Q. 449. Did William E. Tallman, after you had refused to sell him this land, tell you how he was going to get water?

A. He did.

R. D. Q. 450. How did he tell you he was going to do it?

A. Three different ways. The first was by digging a well; then he said he thought he should buy a spring and fetch running water to his lots, from the Harris farm, or put down a pipe.

R. D. Q. 451. Did he say how he was going to put down this pipe?

A. No, sir.

3770 R. D. Q. 452. How far is Preble from Cortland village?

A. Not far from ten miles.

R. D. Q. 453. You have stated in your testimony that there was a well by the road; that was the well that was dug previous to the one dug in 1859, in which this pipe was driven, was it not?

A. Yes, sir.

R. D. Q. 454. How long did the complainant, William B. Andrews, and his astute counsel here talk with you in the road?

A. In the road and side of the road, not far from twenty minutes.

R. D. Q. 455. Have you any driven wells?

A. No, sir.

Redirect examination closed.

Recross-examination:

R. C. Q. 456. On your direct examination you have testified that this windmill was used that season. It was also used a portion of
the next season, wasn't it, and some of the wings blew off, in
3771 that season—one or two—and the field in which the well was
situated was ploughed, and it wasn't used after that season
(meaning the year 1860) that you remember of, and the well was filled up somewhere about twelve years ago? Isn't that substantially true?

A. Them questions, all of them, haven't been put to me. The first question, as to the use of the windmill that season, was asked me. It was used in 1859 and part of 1860. I think the well was filled up about twelve years ago, and I think the well was ploughed the next year (1860). In the fall of 1860, I think, one wing blowed off. I don't remember whether the windmill was used after that season or not (1860).

R. C. Q. 457. Is your well higher than the one there by the road—I mean the surface of the ground?

3772 & 3773 A. I think it is.

(Signed) D. C. CALLEN.

Subscribed and sworn to before me this 23d day of April, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

Proceedings here adjourned until Monday, April 26th, 1880, at 10 o'clock a. m., at this place.

3774 MONDAY, *April 26th,* 1880—10 o'clock a. m.

Convened pursuant to adjournment.

Present: Hon. Milo Goodrich and D. M. Hurlbut, Esq., for complainants, and John W. Suggett, Esq., for defendant.

JAMES C. CARMICHAEL, being duly sworn for defendant, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. J. C. Carmichael; 50 years; manufacturer and dealer in furniture; residence, Cortland.

Q. 2. How long have you resided in the village of Cortland?

A. About twenty-nine years; since I took up my residence here.

Q. 3. Did you reside here in 1861?

A. I did.

Q. 4. In the year 1861, state whether or not a regiment of soldiers was raised here. State the number of the regiment, about
3775 when it was commenced to organize it, and when it left for the seat of war.

A. There was a regiment raised here. It was the 76th Regiment of New York Volunteers. The organization was commenced, I think, in September of 1861, and it left for Albany in December of that year en route for the seat of war.

Q. 5. Where was that regiment stationed while here?

A. On the Cortland county agricultural fair grounds, within the present corporate limits of the village of Cortland.

Q. 6. Who was colonel of that regiment at that time?

A. Colonel Nelson W. Green was the highest officer in command. He was acting colonel.

Q. 7. What — your relation to the regiment?

A. Second in command—acting lieutenant colonel.

Q. 8. Was Byron Mudge connected in any way with that regiment?

A. He was acting lieutenant.

Q. 9. In 1861, while this regiment was stationed here, state
3776 whether or not you were present at an experiment made here for the purpose of making a well.

A. I was.

Q. 10. Where was that experiment made?

A. On the ground occupied by Colonel Green; in his garden, near a creek.

Q. 11. Where were these premises of Colonel Green's situated, with reference to the village and the camp of the regiment?

A. About midway between the camp and the center of the village.

Q. 12. Who were the parties who made or assisted in making this experiment?

A. Byron Mudge, Heman F. Robinson, and myself.

Q. 13. What tools did you use in making the experiment?

A. A crowbar, a large one, a rope and pulley attached to an arm at right angles to an upright scantling, and a tin boat pump.

Q. 14. Describe that crowbar, giving its length, diameter, and approximate weight.

A. The length was from five to six feet and the usual shape of a crowbar. It was an extra large bar. I am not able to state the exact weight or diameter. It was sharpened in the usual form.

3777 Q. 15. Describe the upright post or scantling, giving its dimensions and length and how it was secured to or in the ground.

A. It was a 4 x 4 hemlock scantling, twelve feet long, secured in the ground in a hole, with dirt pounded around it.

Q. 16. How far from the ground, after the upright post had been inserted, did the horizontal arm project out from said upright post?

A. I should think eight or nine feet; I would not be positive.

Q. 17. How was the horizontal arm fastened to the upright post?

A. I think it was morticed and braced.

Q. 18. Describe the pulley.

A. It was inserted in the end of the arm.

Q. 19. Describe the pump, giving its length, diameter, and construction.

A. I think the length was from six to seven feet; diameter, inch to inch and a half, constructed with a tunnel-shaped top, with a spout near the top, with a wooden plunger and a leather valve. It was made of tin. That is my best recollection.

Q. 20. How long was the wooden plunger?

3778 A. A little longer than the pump.

Q. 21. Of what material was the valve made, how was it made, and where situated on this wooden plunger?

A. It was made of leather in the usual way, and situated on the end of this plunger. The valve was in the shape of an inverted cone.

Q. 22. Was there any other valve in this pump? If so, how made, and where was it situated?

A. I have no recollection of any other.

Q. 23. What was the diameter of the rope or cord used?

A. A quarter to a half inch, I should think.

Q. 24. What did you first do after having erected this frame that you have described?

A. We attached the rope to the end of the bar and placed it over the pulley.

Q. 25. What next did you or any of you do?

A. We inserted the bar in the earth by pulling the cord and taking hold of the bar, raising it up and letting it fall down in the hole until we reached water.

Q. 26. How far did you make a hole with the bar before you struck water?

3779 A. From four to five feet.

Q. 27. Was the water then visible in the hole from the surface?

A. It was.

Q. 28. Was this bar, during the process of making the hole, pulled from one side of the hole to the other, so as to increase the size of the hole?

A. It was.

Q. 29. What was the shape of this hole after it had been made at the top?

A. It was round or nearly round.

Q. 30. About what was its diameter at the top?

A. Between three and four inches.

Q. 31. What was and what is the nature of the soil where this hole was made?

A. I think it was a dark muck on the surface.

Q. 32. How far down was it from the surface of the ground to the surface of the water in this hole?

A. From four to five feet.

Q. 33. What would you say was the diameter of this hole made by this crowbar, as you have testified, at its narrowest place above the surface of the water?

3780 A. I should think two inches.

Q. 34. After having made the hole what next was done?

A. The tin pump was inserted in the hole and water was pumped out.

Q. 35. How far was the tin pump inserted in the hole from the surface of the ground?

A. I think from five to six feet.

Q. 36. Describe how you or any of you operated this pump when in the hole.

A. It was held in the hole below the surface of the water, and the plunger worked up and down by hand.

Q. 37. Was it necessary that the pump should be held in the hole by the operator or another person; and, if so, why?

A. It was necessary, the hole being larger than the pump and the pump being so very light that the friction of the valve on the side of the pump would draw it out.

Q. 38. Then the pump did not fill the hole, did it?

A. It did not.

3781 Q. 39. Was there anything to prevent the air from passing freely down in the space left between the pump and the sides of the hole?

A. I know of no reason.

Q. 40. How long did you operate this pump in this hole?

A. A short time; it might have been an hour, more or less.

Q. 41. Which one of you acted as superintendent of the experiment?

A. Byron Mudge.

Q. 42. Was the complainant, Nelson W. Green, there any of the time? If so, when?

A. After the hole was completed he was there.

Proceedings adjourned until 2 o'clock p. m., Monday, April 26th, 1880, at this place.

MONDAY, *April 26th,* 1880—2 o'clock p. m.

Convened pursuant to adjournment.

Present: As before.

Examination of JAMES C. CARMICHAEL resumed:

3782 Q. 43. How long did he remain there at that time?

A. A short time; it might have been half an hour.

Q. 44. What was was the object of this experiment? Please describe briefly.

A. The object was to see if by making a hole in the ground down to the water and applying a pump we could get a continuous flow of water.

Q. 45. Was there any special end or purpose in view?

A. There was, with particular reference to supplying the regiment with water on its marches from place to place.

Q. 46. Was it then and there discussed as to what the apparatus should be and how the wells should be made for this purpose?

A. There was some conversation there in reference to the construction of a well, but nothing more than what had been talked of previously.

Q. 47. What was the conversation in reference to the construction of a well which took place at or about the time of this experiment?

3783 A. Being satisfied by this experiment that water could be procured, it was proposed by Mudge to make tubing or curbing of some sheet-iron or zinc to keep the well from caving in, so that the pump could be kept clear from dirt, which curbing I afterwards understood he procured.

Q. 48. How was this curbing to be used?

A. Put together in sections.

Q. 49. Was it then to be put into the ground?

A. It was.

Q. 50. How was the water to be obtained from the well made by this curbing?

A. By inserting a pump inside of the curbing the same as in the first instance.

Q. 51. Then the pump was not to be attached directly to the curbing, was it?

3784 A. It was not.

Q. 52. And there was to be a space between the outside of the pump barrel and the inside of the curbing, was there not?

A. The curbing was to be sufficiently large to admit of the pump and protect the well from dirt or caving.

Q. 53. What kind of a pump was it then thought or discussed it would be necessary to be used?

A. I have no recollection of discussing any other pump, only the kind used at this experiment.

Q. 54. Have you any knowledge of the apparatus and materials which Mudge had prepared to take with the regiment?

A. He had tubing or curbing made for that purpose, but I have no positive knowledge of the amount taken.

3785 Q. 55. Did you see any of this curbing that Mudge had so prepared?

A. I saw some short pieces.

Q. 56. Why did you not use the metallic curbing at the experiment? State the reason

A. The distance being so short before we reached the water that the ground did not cave and it was not necessary.

Q. 57. Why did you go to Colonel Green's garden to make this experiment?

A. Because it was easy of access and near a creek.

Q. 58. Was there any other significance in going there?

A. I know of no other.

Q. 59. Did any one suggest going there; if so, who?

A. I have no recollection of any suggestion made farther than going up to Dibble's creek.

Q. 60. Are you acquainted with the mode of construction of driven wells as made at present in Cortland village?

A. I am.

Q. 61. Do you know that as made at present only one tube
3786 is used and the pump is attached directly to it.

A. I do.

Q. 62. Now, taking your knowledge of the construction of driven wells in Cortland, as made at present, and also your knowledge of what was done and what was said and the discussions had in relation to obtaining water for the regiment in 1861, how does the present driven well differ from the wells which it was intended to make for the regiment in pursuance of the experiment?

3787 A. They differ the same as the well I have described put down by Mudge, Robinson, and myself differs from the present driven well.

Q. 63. Then the difference was this, that in the present driven well but one tube is used, whereas in the wells to be made in pursuance of the experiment for regimental purposes two tubes were to be used—one for a curbing, the other to be inserted and a pump attached to it for drawing water; is this not so?

A. I so understand it.

Q. 64. When did you first see a driven well made as they are made at present?

A. I have no recollection when.

Q. 65. Did you see a well made on the fair ground by Mudge subsequent to this experiment, or do you know of one being made on the said fair ground in pursuance of the plan adopted by you at this experiment?

3788 A. I have no personal knowledge of any other well put down by Mudge than this experiment already testified to.

Q. 66. Did you go to the seat of war with this regiment?

A. I took it to Albany and commanded it for one month while there, when my connection ceased with the regiment.

Q. 67. Did Nelson W. Green return to Cortland in 1862?

A. He did not.

Q. 68. Was he in Cortland, more or less, in 1862?

A. I have no positive recollection of Green in 1862.

3789 Q. 69. Did you subsequently become connected with or raise another regiment? If so, state when it was, and the capacity in which you acted.

A. I did; the 157th New York Volunteers in 1862, in August. I raised a company, assisted in raising four others in this county, and entered the regiment as major, came out as colonel at the close of the war; was mustered out July 31st, 1865.

Q. 69½. Where did you get the boat pump that you used at this experiment?

A. At Malmberg and Kohler's liquor store.

Examination closed.

Cross-examination:

C. Q. 70. At the time of this experiment, made in Colonel Green's garden, as you have testified to, was Byron Mudge a resident of this county; if so, in what town did he reside?

A. He was a resident of the town of Cortlandville.

3790 C. Q. 71. Do you know, from public notoriety or otherwise, that Mudge, subsequent to that experiment and based upon it, obtained a patent for the so-called driven well?

A. So I have understood from public notoriety; I have no personal knowledge by an examination of the papers.

C. Q. 72. Do you know that there was subsequently to his obtaining his patent a controversy here in Cortland which was made the subject of a public hearing here between Byron Mudge, Colonel Green, and James Suggett, residing in Cortland, as to which one of the three was the true discoverer and inventor of this driven-well process for well making?

A. I do.

3791 C. Q. 73. Heretofore have you expressed your own convictions freely that Byron Mudge was the true inventor of the driven well, and that he was entitled to the patent he had obtained therefor?

A. I might have used words that conveyed that meaning.

C. Q. 74. Did or did not, according to your knowledge and information, the driven well now in general use have its origin here in Cortland in the fall of 1861 and springing from this very experiment that you say you assisted in making in the garden of Colonel Green?

A. As far as my knowledge extends it did.

C. Q. 75. Was such a thing as a driven well ever heard or known of here in Cortland or in the surrounding country, to your knowledge, prior to that experiment?

3792 A. I have no knowledge of any.

C. Q. 76. Had you ever heard of such a process of well making prior to that experiment?

A. I have no knowledge of any.

C. Q. 77. You have been examined before, have you not, here in Cortland, in a case involving the priority of the invention of the driven well?

A. I have.

C. Q. 78. More than once? If so, how many times?

A. Three or four times, and perhaps more; I was examined in the case of Andrews *et al vs.* Carman, in 1873, I think.

C. Q. 79. Do you remember that in the controversy that existed in respect to which of the three persons—Green, Mudge, or Suggett—was the true inventor of the driven well, you, Barker, and others, at the request of Mudge, gave your name as certifying to the correctness of Mudge's statement of his own connection with and experiment or experiments in the invention of the driven well?

Complainants' counsel here shows the witness the alleged statement.

3793 A. I do not remember.

C. Q. 80. Did you there certify to the truth of this fact included in the statement that you so certified to, that in the first experiment made, which produced the driven well, Mudge was assisted by Adjutant Robinson and yourself with Mudge?

A. I have no recollection of this specified time, nor have I any knowledge of signing any such statement.

C. Q. 81. How came this experiment, which you say was made at Colonel Green's garden, to produce a well to be made, and in whose suggestion was it made in the first instance? 3794

A. This was at a time when the rebels were poisoning springs in Virginia; we were coming down from the fair ground—the officers who were in charge at the camp, all of them—and the conversation turned on the poisoning of springs by the rebels in Virginia, when Colonel Green suggested that there might be some way of procuring water by driving a bar in the ground and by having an apparatus which we could take along with us; turning to Mudge he said: " You are an ingenious man; you get something up; you can have Robinson and Carmichael to help you.

C. Q. 82. Was the surrender of Mulligan in the West for want of water, which had then recently occurred, also mentioned in that conversation as leading to Green's suggestion about the well?

A. I have no recollection of it; I could not say that it was not so.

C. Q. 83. Did not Colonel Green in that conversation distinctly

say that he thought that water could be easily obtained
3795 by driving or forcing some iron rod or instrument down
through the earth to water, thus making an aperture into
which a pump could be inserted?

A. I have no recollection.

C. Q. 84. Do you say that was not so? Please answer yes or no.

A. I cannot answer that question yes or no.

C. Q. 85. Can you say that you have any recollection now sufficient to enable you to say that it was not so, or that Colonel Green did not say that?

A. I have no recollection of his using the word "aperture," but he might have used it.

C. Q. 86. Do you recollect that Colonel Green, in his conversation
with his officers to which you have testified, did speak
3796 of driving or forcing down an iron rod into the earth as the
means for making the hole for the insertion of a pump to
produce a well?

A. He used words to that effect.

C. Q. 87. Did he express a confident opinion of his own that a well could be made in that way and that by the use of such a well the danger of poison to the regiment when in the field could be avoided?

A. He used words to that effect.

C. Q. 88. Did the idea strike you at the time as a novelty, and did you then express your opinion there that a successful well could not be thus made.

A. I have no recollection of the impression or the expression that I made at that time.

C. Q. 89. Did you not testify in the Carman case that it struck you as a novelty?

A. I don't recollect whether I did or not.

3797 C. Q. 90. In the conversation did Colonel Green go on to
state that a well could be made in the way he described, and
that that would enable the regiment to take the tools for making the
well and for operating it along with the regiment from place to place
in the field?

A. He spoke of making a well by driving an iron bar in the ground and taking the apparatus along with the regiment so we could make our own wells when we camped for the night.

C. Q. 91. What did he say as to the means to be used in operating the well when thus made; whether by the use of a pump or otherwise?

A. It was to be operated by a pump. I think the word "pump" was used, but I cannot recollect the details. He spoke of an iron rod and a pump.

C. Q. 92. Did he say in substance that when a hole was made by the rod down to water a pump could be inserted and thus water be easily obtained.

3798 A. I have no recollection.

C. Q. 93. Can you say that Colonel Green did not say that, in substance, at that time in that conversation?

A. I cannot say positively that he did not.

C. Q. 94. Do you now recollect all that Colonel Green did say about the method for making the proposed well?

A. No.

C. Q. 95. What did you say then in reply to Colonel Green as to his proposed method for making a well?

A. I have no recollection.

C. Q. 96. Now state whether or not any of the other officers expressed doubts as to the possibility of making wells that would produce water in the way Green was proposing.

A. The officers expressed themselves *pro* and *con*, but I have no recollection of their conversation.

C. Q. 97. Did not every one of the officers present distinctly express themselves as doubting that wells could be made by the method that Green was then suggesting? 3799 & 3800

A. I have no recollection.

Proceedings here adjourned, by stipulation to that effect, until Friday, April 30th, 1880, at 10 o'clock a. m., at this place.

3801 FRIDAY, *April 30th*, 1880—10 o'clock a. m.

Convened pursuant to adjournment.

Present: Hon. Milo Goodrich, for complainants; John W. Suggett, Esq., for defendant.

Cross-examination of JAMES C. CARMICHAEL resumed:

C. Q. 98. Are you able to give all that was said among the officers and by each of them when, as you say, Colonel Green suggested his new method for obtaining water for the use of the regiment in the field? Please answer directly whether you are or are not able to give all that each officer, including Colonel Green, said on that occasion.

A. No.

C. Q. 99. Can you give anything that Mr. Mudge said in reply to Colonel Green's suggestion?

A. No; nor no other officer present.

C. Q. 100. Please state who were the officers present on that occasion, as far as you are able.

3802 A. Colonel Green, Lieutenant Mudge, Adjutant Robinson, Ami Todd, I think, and myself.

C. Q. 101. Do you remember whether or not the question as to the want of atmospheric pressure was raised by any one present as an objection to Green's proposed method of making a well; if so, by whom was that objection raised?

A. I have no recollection one way or the other.

C. Q. 102. Who suggested that an experiment should be made to test the practicability of making a well in the way Colonel Green then suggested?

A. Colonel Green.

C. Q. 103. Who designated the place and time when and where the experiment had better be made?

A. I think it was Mudge.

C. Q. 104. Did not Colonel Green himself suggest his own garden near the creek as the proper place upon which to make the experiment? Please answer yes or no.

A. I can't answer yes or no. I have no recollection.

3803 C. Q. 105. Are you prepared to say, Colonel Carmichael, that Green did not himself designate his garden as the place where the experiment should be made? Again please answer directly, yes or no.

A. My best recollection is that he did not, as there was no significance in the place selected, except to be near the creek.

C. Q. 106. Will you testify positively that Colonel Green did not himself designate his own garden as the place for the experiment? Please answer directly now whether you will or will not so testify positively.

A. I have no recollection whether he did or did not.

C. Q. 107. Did or did not Colonel Green request Mudge to prepare the means for making the experiment?

A. Yes, sir; he did.

C. Q. 108. Colonel Green suggested, did he not, an iron rod, to be driven into the ground to make the hole preparatory to receiving the pump barrel?

3804 A. Yes; he suggested it at the time he was coming from the fair ground, in the conversation referred to.

C. Q. 109. Did not Colonel Green also suggest the kind of pump that could be employed in the experiment, and did he not designate an ordinary boat pump with its barrel lengthened out?

A. I have no recollection of Colonel Green's discussing pumps at this time.

C. Q. 110. But the question I ask is whether Colonel Green did not himself, in the interview with his officers referred to, suggest that an ordinary boat pump with its barrel lengthened out would be sufficient for the purposes of the experiment to be made. Now, be kind enough to answer this particular question directly, whether he did or did not.

A. I have no recollection whether he did or not.

C. Q. 111. Did or did not Colonel Green in that interview suggest that the rod could be driven down with an ordinary beetle and say to Mudge that he would find such a beetle in his wood-house, in rear of his dwelling? 3805

A. I have no recollection in reference to that conversation about the beetle.

C. Q. 112. Are you prepared to testify positively that Colonel Green did not so suggest?

A. I am not; I have no recollection.

C. Q. 113. Did Colonel Green suggest the size of the iron rod to be used in the experiment?

A. My best recollection is that he did not.

C. Q. 114. Are you prepared to testify positively that he did not?

A. I am not.

C. Q. 115. You assisted Mudge, did you, in preparing the instrumentalities for making this experiment in Green's garden that you have spoken of?

A. I did.

C. Q. 116. What part of the preparations did you make yourself?

A. I procured the bar, the pump, and the scantling for the upright frame.

C. Q. 117. Did you have the barrel of the pump lengthened out at some tinner's shop here?

3806 A. I think it was Mudge that had it lengthened out.

Proceedings here adjourned until 1.30 o'clock p. m., Friday, April 30th, 1880.

FRIDAY, *April 30th*, 1880—1.30 o'clock p. m.

Convened pursuant to adjournment.
Present: As before.

Cross-examination of JAMES C. CARMICHAEL resumed:

C. Q. 118. Can you give the size of the iron bar or rod used in the experiment in Green's garden accurately?

A. I should say from my present recollection it was about an inch and a half in diameter; it might have been a quarter of an inch larger or smaller; I cannot give it accurately.

C. Q. 119. Can you give the size accurately of the barrel to the pump used in the experiment?

A. It might have been an inch or an inch and a quarter; I cannot give it accurately.

3807 C. Q. 120. At the time of this conversation between Colonel Green and his officers, in which, as you say, he suggested this new method of making a well, was Green's time engrossed in the affairs of the regiment constantly from day to day?

A. It was.

C. Q. 121. How far was the place of the experiment from the camp ground where the regiment was quartered, stated in rods?

A. About one hundred and twenty rods.

C. Q. 122. That was a period of unusual excitement and interest in matters connected with the regiment, was it?

A. It was.

C. Q. 123. Was Colonel Green devotedly given up in time and interest in the affairs of the regiment at that time, according to your observation?

A. He was.

C. Q. 124. Was he a considerate or an impulsive, intuitive man, as you know him?

A. He was an impulsive man; he was a man that acted upon what he perceived without stopping to reason.

3808 C. Q. 125. Was he in military and other matters, as far as you could observe, a person who had views of his own often peculiar from other people?

A. In military matters he followed the customs of the service; in other matters he was rather peculiar; he had views of his own, which were often peculiar.

C. Q. 126. As a man was he reliant upon other men's views or persistent and often stubborn in following his own?

A. He was a persistent man in his own views.

C. Q. 127. Was he, at the time to which your evidence relates, an intensely loyal man to the flag of his country?

A. He was.

C. Q. 128. You say that during the experiment made in putting down a well in his garden he came there. Can you state precisely at what point of time in the experiment he came?

3809 A. After the pump had been put into the hole.

C. Q. 129. What did he say and do when he came? State as far as you are able.

A. He rode on his horse; I am not able to state what he said, and do not recollect of his getting off his horse.

C. Q. 130. Do you say he did not get off his horse and come and examine the work of the experiment?

A. He might have got off his horse, but I have no recollection of it.

C. Q. 131. Was not the first effort made in pumping water in the experiment made after his arrival?

A. No.

C. Q. 132. Was he not present when the first effort in pumping water in the experiment was made, and did he not then exclaim in substance, "There, I told you it would work?"

A. I have no recollection of such an expression.

C. Q. 133. Do you say positively that it was not so, as stated in the last preceding question?

A. My best recollection is that he was not there when it was first completed.

3810 C. Q. 134. Colonel Carmichael, was not Colonel Green present after the hole was made, when the pump was first inserted in it, and didn't you so testify when you were examined in the Carman case?

A. I have no recollection of so testifying at any time.

C. Q. 135. Can you state anything that was said by any of the parties engaged in the experiment after Colonel Green came there?

A. Only in a general way that it was satisfactory; I could not state what any one said.

C. Q. 136. Can you state anything that Colonel Green said after he came?

A. Only in a general way that the experiment was satisfactory, as I have already said; but the words or terms he used I am not able to state.

C. Q. 137. Did he in substance say that?

A. He did.

C. Q. 138. How long after this experiment was it that the shooting of McNett by Colonel Green in the camp of the regiment occurred?

3811 A. It might have been sixty days, more or less; I should think it was sixty days.

C. Q. 139. McNett was a member of the forming regiment, was he not?

A. He was.

C. Q. 140. Was the shooting of him by Colonel Green for alleged mutiny occurring in camp?

3812 A. It was.

C. Q. 141. Did that circumstance lead to great excitement here in Cortland and vicinity, which continued here for a long period of time, involving Colonel Green in difficulty?

A. It did for some time; for two or three years.

C. Q. 142. Did not the excitement continue until after Colonel Green's trial here in Cortland, in 1865?

A. It did; somewhat modified.

C. Q. 143. Do you know how long the pump, inserted in the ground at the experiment you have spoken of, remained there before it was removed?

A. From thirty to sixty minutes.

C. Q. 144. Was you present when it was removed?

A. My recollection is that I was.

C. Q. 145. Are you certain about that?

A. I am as certain as my memory will serve me.

C. Q. 146. Will you swear positively that you was present

3813 when that pump was removed from the ground?

A. As positive as any recollection I have in regard to any part of the experiment.

Cross-examination closed.

Redirect examination:

R. D. Q. 147. Were you and Mudge and Robinson appointed as a committee to make this experiment?

A. We were detailed to make it.

R. D. Q. 148. You have spoken on your direct examination in reference to a continuous supply. Do you mean by that that you could pump water from this hole, or what do you mean by it?

A. I mean by raising and lowering the plunger inside of the pump a continuous stream runs out of the spout.

R. D. Q. 149. When the plunger of this pump was operated state whether or not the valve on the end of it, as you have described, would at any time come up above the surface of the water in the ground.

A. I think not.

3814 C. Q. 150. Then this plunger at each upward stroke lifted up the water, did it not?

A. It operated the same as all pumps of that kind, with an inverted cone-shaped valve placed on the lower end of the plunger.

C. Q. 151. You have spoken of a conversation with Green and the rest of the officers. Where did that conversation take place?

A. Between Green's house and the camp ground on the road.

Redirect examination closed.

Recross-examination:

R. C. Q. 152. You say you, Robinson, and Mudge were detailed to make this experiment. By whom were you thus detailed?

A. Colonel Green.

(Signed) J. C. CARMICHAEL.

Sworn and subscribed before me this 30th day of April, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

3815 Proceedings adjourned until Saturday, May 1st, 1880, at 9 o'clock a. m., at this place.

FRIDAY, *May 1st*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

EBENEZER MUDGE sworn for the defendant and testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is Ebenezer Mudge; my age is 64 years; my residence is Cortlandville, and my occupation a miller.

Q. 2. How long have you resided here?

A. Since 1839.

Q. 3. Did you reside here in 1861?

A. I did.

Q. 4. Did you then know the complainant, Nelson W. Green?

A. I did.

Q. 5. Do you know Byron Mudge?

A. I do.

Q. 6. Where did he reside in 1861?

3816 A. He resided here.

Q. 7. Was Byron Mudge connected in any way with a regiment of soldiers that was raised here in that year?

A. I think not, except as voluntary services.

Q. 8. Do you know of Byron Mudge, James C. Carmichael, and H. F. Robinson making an experiment on the premises of said Green for the purpose of testing a proposed new method for obtaining water?

A. I only know what I have been told; I was not present.

Q. 9. Who told you anything about it, and when?

A. Byron Mudge told me, soon after the experiment was made.

Q. 10. Subsequently to the time he told you about this experiment, and in the year 1861, were you present at other experiments which said Mudge made for the purpose of further testing this proposed plan or method of obtaining water?

3817 A. I was.

Q. 11. Where were those experiments made?

A. Near the mill that I owned at the time a short distance from the town.

Q. 12. Were you present?

A. I was.

Q. 13. What was done at the first experiment?

A. A rod was driven into the ground and withdrawn and a pipe inserted, and I think what is called a common boat pump was inserted in that pipe and water pumped from it.

Q. 14. What was the size of the rod that was used?

A According to my recollection now, it was about a two-inch rod.

Q. 15. What was its length?

A. I should say it was somewhere about twelve feet.

Q. 16. Of what material was it made and what was its shape?

A. Of round iron, with the end of it sharpened or pointed.

Q. 17. Who were present when this experiment was made?

3818 A. I don't know that I can give the names of all, but there were quite a number present—Mr. Townley, Mr. Sykes, and, I think, Albert Rollo, and several men who were employed in the cooper shop just across the way from the mill.

Q. 18. What was the diameter of the tubing used?

A. I think that was about a two-inch pipe.

Q. 19. Of what material was it made?

A. I think it was tin; a common conductor pipe.

Q. 20. What was the diameter of the barrel of this boat pump?

A. I don't know that I can give the diameter of it; it was small enough to go inside this tube loosely and give it plenty of room.

Q. 21. What was the length of the boat pump?

A. I think it was somewhere about eight or ten feet.

Q. 22. How was the bar driven?

A. I think by a common sledge or post-driver.

Q. 23. How far into the ground was the bar driven?

A. I think it was driven about six or eight feet.

Q. 24. How was it then drawn up?

3819 A. I think by hitching a chain to it with a lever.

Q. 25. How was the tubing inserted in this hole made by the bar?

A. I think the bar made the hole sufficiently large, so that the tubing went into it easily.

Q. 26. How far into the ground was the tubing pushed?

A. I should think nearly to the bottom of the hole.

Q. 27. How far was it to water from the surface of the ground?

A. I should think about six or seven feet.

Q 28. After the boat pump had been inserted in this tube was there a space between the outside of the barrel of the pump and the inside of the tubing, extending the entire length of the tubing?

A. There was.

Q. 29. How long was water pumped from this well?

A. But a short time.

Q. 30. Did it furnish a good supply of water?

A. It did.

Q. 31. Did Byron Mudge make another experiment shortly
3820 after this, at which you were present?

A. He did.

Q. 32. For what purpose was that experiment made?

A. To test the working of the well at different depths.

Q. 33. Where was that experiment made?

A. Near where the first one was made, on the same premises.

Q. 34. About how long after the first one?

A. I couldn't say exactly, but I think within a week or two.

Q. 35. How was that experiment made?

A. I think similar to the first.

Q. 36. Was a boat pump used?

A. I think it was.

Q. 37. Were two pipes used at this second experiment?

A. There was.

Q. 38. Was the boat pump inserted in the tubing, as in the first experiment?

A. I think it was.

Q. 39. How deep was the pipe forced into the earth in this second experiment?

A. I think the length of the rod, whatever that was. It seems as though it was twelve feet or more.

3821 Q. 40. Did Byron Mudge subsequently to this make a third experiment?

A. He did.

Q. 41. Where was that?

A. On Mr. Townley's premises.

Q. 42. Did you see that experiment made?

A. I did not see it made. I saw it after it was made.

Q. 43. Describe fully what you saw—when you viewed it.

A. It was like the experiments he had made first.

Q. 44. Subsequently to this did Byron Mudge make a well after the plan of these experiments on the fair ground?

A. He did.

Q. 45. Did you see that well after it was made?

A. I did.

Q. 46. What did you see when you viewed it?

A. I think it was similar to those experiments he made when I was present.

Q. 47. Do you know for what purpose this well made by Byron Mudge was used?

3822 A. For the use of the regiment while it was organizing on the fair ground.

Direct examination closed.

Cross-examination:

C. Q. 48. Byron Mudge is a brother of yours, is he?

A. He is, and is still living.

C. Q. 49. Older or younger than yourself?

A. Younger.

C. Q. 50. Is he the same Byron Mudge that, subsequently to the time of the experiments that you speak of, obtained a patent for the driven well?

A. He is.

C. Q. 51. You were not present, were you, when the well on the fair ground you have spoken of was put down?

A. I was not.

C. Q. 52. How long after it was put down was it before you were there to view it, as you say?

A. I think but a few days. I should think within a week.

C. Q. 53. The well was then in use, was it?

3823 A. It was being used at the time, I should think.

C. Q. 54. Was this well operated by an ordinary hand pump?

A. I think it was.

C. Q. 55. Whereabouts on the fair ground did you find this well?

A. It was near or in the cook-room.

C. Q. 56. Was it in the cook-room, or some room adjacent to it, or not?

A. I think it was.

C. Q. 57. Was there a floor to the room in which the pump stood?

A. I couldn't say.

C. Q. 58. Was not the pump standing above the flooring of the room where it was, supported from the floor by a stooling of wood or boards?

A. It was supported by something of the kind, but I couldn't say whether it was supported from the flooring or the ground.

C. Q. 59. Why not?

A. I don't recollect whether there was a floor where the pump stood or not.

C. Q. 60. Was the pump attachment to its pipe that went 3824 into the ground open to your view when you viewed it?

A. I think it was.

C. Q. 61. The well itself, all except the pump, was covered by the flooring of the room, was it not, when you were there?

A. I have said I didn't recollect whether there was a flooring to the room or not.

C. Q. 62. Do you recollect whether any portion of the flooring was removed to give you a view of the well beneath when you were there?

A. I think my brother showed me the well and told me how it was made.

C. Q. 63. Will you testify positively, Mr. Mudge, that you had any personal view of so much of the well as was beneath the flooring of the room where the pump stood, if there was a flooring there at the time?

A. I couldn't say positively.

C. Q. 64. Had Colonel Green anything to do with these experiments which you have testified that your brother, Byron Mudge, made, to your knowledge?

3825 A. He hadn't to my knowledge.

Cross-examination closed.

Redirect examination:

R. D. Q. 65. What did your brother, Byron Mudge, tell you as to how this well was constructed on the fair ground, and when did he first tell it to you?

A. I think at the time I saw it on the fair ground he showed it to me and told me it was made like the experiments at which I assisted him, except that he had attached an ordinary pump instead of a boat pump.

R. D. Q. 66. To what did you then understand this ordinary pump was attached?

A. To a tube or a pipe inside of another pipe.

Redirect examination closed.

3826–3829 Recross-examination:

R. C. Q. 67. Are you able now to recollect so as to detail fully and accurately at this period all that your brother thus told you as to the construction of that well on the fair ground?

A. Not all, but in substance.

Examination of the witness closed.

(Signed) EBENEZER MUDGE.

Subscribed and sworn to before me this 1st day of May, 1880.

[L. S.] M. STANLEY BIERCE,
Notary Public.

3830 MAY 25TH, 1880—1.30 o'clock p. m.

Convened pursuant to adjournment.

Present: As before.

EDWIN WILBER sworn for defendant and testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is Edwin Wilber; my age is 42 years; my residence is Preble, N. Y., and my occupation, farming.

Q. 2. How long have you resided in Preble?

A. Most 42 years; I was born there and have always lived there.

3831 Q. 3. Did you know William E. Tallman in his lifetime?

A. I did.

Q. 4. When did you first become acquainted with him?

A. I was acquainted with him all the time he lived in Preble and up to the time he died.

Q. 5. What was his business while he lived in Preble?

A. He lived on the farm all the time—farmed it part of the time and part of the time the farm was let.

Q. 6. Did he own a farm in the town of Preble?

A. It was reported that he did.

Q. 7. How near did you live to his farm?

A. Thirty rods at the nearest point, I guess.

Q. 8. State whether or not the farm upon which you lived joined his farm.

A. It joined on the north and west.

Q. 9. Do you remember of William E. Tallman's employing a method different from that in ordinary use for obtaining water on his farm?

3832–3833 A. I knew of his digging a well; I saw the well after it was dug and heard of their digging it at the time.

Q. 10. What did you see about this well after it was dug and how long after it was dug did you see it?

A. I saw it soon after it was dug; I cannot tell the time exactly; it might have been one week or it might have been four weeks; it was that season. I saw a pipe in the well and a windmill attached to it; that was all I saw of any interest to me.

Q. 11. Did you, in your last answer, answer the clause "that was all I saw of any interest to me" in response to a question of defendant's counsel or in answer to an independent question put to you by the notary?

3834 A. In response to the notary.

Q. 12. Where was this dug well situated?

A. It was on William Tallman's premises and on the west part of the farm west of the railroad.

Q. 13. Do you know when it was dug?

A. To the best of my remembrance it was dug in the spring of '59.

Q. 14. How deep was it dug?

A. I should guess maybe it was from 15 to 18 feet. It is guesswork.

Q. 15. Was there a windmill afterwards erected over this well?

A. There was.

Q. 16. State whether or not this dug well afterwards became dry.

A. William Tallman said it was dry.

3835 Q. 17. Did you at any time visit this well?

A. I did go to the well several times.

Q. 18. What did you do when you visited the well?

A. At one time I took off the cover and looked down into the well, and at another time I came up to the platform, took a stick out, and set the windmill in operation and saw it pump water.

Q. 19. State one thing that you saw when you looked down into the well.

A. I saw a lead pipe.

Q. 20. Describe that lead pipe, stating to what it was connected, if anything, and how it was situated and placed in the well.

A. I should think it was from $\frac{1}{2}$ inch to $\frac{3}{4}$ inch pipe; I
3836 couldn't say which, and I should think it was connected with
the pipe in the well and run up through the bank into a reservoir, as I supposed.

Q. 21. Where in the well was this pump?

A. It was down in the well about half the depth; it might have been more than that.

Q. 22. Tell the size of this pump, if you can.

A. I should judge it was somewheres from ten to twelve inches or such a matter long; I don't think it was over an inch and a half through at the largest.

Q. 23. Of what material was the pump made?

A. I should judge it was iron or steel.

Q. 24. To what was the pump fastened in the well?

A. I could not say whether it was fastened to anything or not, except the pipe; it was fastened to a pipe in the well.

Q. 25. You say the pump was fastened to a pipe in the well; which end of the pump was fastened to the pipe, the bottom or top end?

3837 A. The top end had a lead pipe fastened to it; that was all the pipe I saw fastened to the pump.

Q. 26. Did you see another pipe in the well besides the lead pipe?

A. No, sir.

Q. 27. You say that you saw the windmill pump water at one time. Did you look into the well at that time?

A. Yes, sir.

Q. 28. State whether or not this dug well was dry.

A. I couldn't swear that it was to my own knowledge; report said it was.

3838 Q. 29. How far across was the dug well?

A. I think likely it was two feet and a half after it was stoned.

Q. 30. Did William E. Tallman tell you in 1859 that this dug well was dry?

A. About that time. I couldn't swear positively that it was in the year 1859, but it was in 1859 or about that time that it was said in my presence that the well was dry.

Q. 30½. Did William E. Tallman tell you how he was going to get water from this dug well after it had become dry?

A. He said he was going to try an experiment.

3839 Q. 31. What did he say?

A. He had a piece of iron pipe with holes punched or drilled in it; I should judge three and one-half to four feet in length; he said he was going to drive that in the bottom of his well and try and suck water through that to save taking his well up and digging it deeper.

Q. 32. Did you see the pipe that he had at that time?

A. I did.

Q. 33. What was the diameter of its bore?

A. I should judge it was about an inch an- a half pipe; it may have been a two-inch pipe, but I shouldn't think it was.

Q. 34. Did you see him prepare this pipe or punch the holes in it?

A. No, sir; I did not.

Q. 35. Do you know whether or not, by William E. Tallman's telling you or otherwise, that this pipe was driven into the bottom of this dug well?

3840 A. As I have answered one question before, only by report; report says that it was driven in the bottom of this dug well.

Q. 36. What was this well worked by the windmill used for?

A. Watering a stock of cattle.

Q. 37. How long was it in use?

A. As near as I can remember, two or three years.

Q. 38. What makes you put the year 1859? Give your reasons.

A. There are two reasons—first, my sister was married the sixteenth of February of that year; second, there was a camp-meeting on Moses Tallman's farm the fourteenth of September of that year.

Direct examination closed.

Cross-examination:

C. Q. 39. How old were you at the time this well was dug?

A. Twenty-one years' old in May.

C. Q. 40. Where were you living?

3841 A. On my father's farm in Preble.

C. Q. 41. What were you engaged at that year?

A. Farming.

C. Q. 42. To work for your father?

A. Yes, sir.

C. Q. 43. By the month or how?

A. I had my board, clothes, and some spending money.

C. Q. 44. What time in the year did you first see the well spoken of?

A. I think it was in May or June; in the fore part of the season, anyway?

C. Q. 45. When next did you see it in that year; about how long aftewards?

A. The next time that I remember of being at the well was after they had got the windmill up and were pumping water by wind, but whether that was that season or not I couldn't say.

C. Q. 46. Then you weren't at this well once prior to the erection of the windmill as you now remember, were you?

A. I wouldn't swear positively that I was; I may have been there more times.

C. Q. 47. Question repeated.

3842 A. That is all I now remember distinctly of.

C. Q. 48. Who was at the well with you at either of the times you have mentioned, if any one?

A. I don't think there was any one; at one time there was not, certainly.

C. Q. 49. You don't remember now distinctly of any one being at the well on either of those occasions with you, do you?

A. I do not.

C. Q. 50. What was the occasion of your going there the first time?

A. I cannot tell you how I came to go there the first time.

C. Q. 51. Describe the pump that was in the well when you were there the first time.

A. I don't know as there was any pump in the well the first time.

C. Q. 52. Do you mean to be understood that there was not?

A. I would not swear whether there was or was not a pump there.

C. Q. 53. What is your best recollection?

A. I have no recollection of seeing any pump at all till I
3843 saw the one that the windmill was attached to.

C. Q. 54. How long were you at the well the first time?

A. I couldn't tell how long I was there.

C. Q. 55. What were you doing?

A. I couldn't say, any more than that I went across those fields quite often to go to Preble. It may have been at one of those times or it may not have been.

C. Q. 56. Was there any trough or other receptacle for water there at that time?

A. Not as I remember of.

C. Q. 57. Was it covered over with anything?

A. There was a square box made of plank, with a wood cover over the box, set on top of the stones.

C. Q. 58. About how deep was the well at that time?

A. I should think it was from fifteen to eighteen feet.

C. Q. 59. You could see the windmill from where you lived, could you not?

A. Yes, sir.

C. Q. 60. You say you were there in May or June. About
3844 how much water was there in the well then?

A. I would not swear that there was any.

C. Q. 61. You don't mean to be understood as testifying that there was not any in it, do you?

A. I wouldn't swear whether there was or was not any in it.

C. Q. 62. Do you know how long the well had been dug when you were there at that time?

A. I couldn't swear how long it had been dug from my own knowledge; I only know from what has been told me.

C. Q. 63. About what season of the year did you first see the windmill?

A. I couldn't answer that question. I have no date or knowledge of what time that windmill was put up.

C. Q. 64. Was it put up that fall or that year after you was at this well?

A. I couldn't swear whether it was put up that year or not.

C. Q. 65. What finally became of the windmill?

A. A northwest gale blew it to pieces.

3845 C. Q. 66. And was it repaired or used after that?

A. Not to my knowledge.

C. Q. 67. Are you prepared to state just how long it was operated there?

A. No, sir; I am not.

C. Q. 68. Do you know the fact that shortly after it was erected one or two of the wings blew off and it was repaired?

A. No; I do not; I think one or two of the wings blew off and it was run after that, but I have no knowledge of its being repaired in any way whatever.

C. Q. 69. Will you swear positively that this windmill was ever used after April, 1861?

A. I couldn't swear that it was for pumping water; I think it stood there for four or five years, and ran off and on.

C. Q. 70. Do you mean to testify after the first of April, 1861, that this windmill was used for pumping water?

A. I never saw that windmill pump water only that one 3846 time, and that was the time when I climbed up on the platform and started it, to my knowledge.

C. Q. 71. You say that you think two of the wings blew off. About how long was it after the windmill was erected that they blew off?

A. It may have been a year or it may have been two years; I could not state the exact time.

C. Q. 72. Where were you when you first had a conversation with William E. Tallman with regard to this well?

A. In his door yard, north of his house.

C. Q. 73. Who was present?

A. Father and I and Mr. Tallman were the only ones present that I have any remembrance of.

C. Q. 74. What was the occasion of your being there at that time?

A. I don't know how it was that we were in the yard or why we were there, but we were there. I have no recollection of what our business was there at that time.

3847 Further proceedings adjourned until Wednesday, May 26th, 1880, at 9 o'clock a. m., at this place.

WEDNESDAY, *May 26th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

The examination of the witness Wilber is here suspended, by mutual consent, and Dr. H. A. BOLLES, sworn for the defendant, and testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. My name is Henry A. Bolles; my age is fifty-three years last March; my residence is Cortland, N. Y., and my occupation, physician and surgeon.

Q. 2. How long have you resided in the village of Cortland?

3848 A. I came here in 1852.

Q. 3. Have you any driven wells?

A. I have.

Q. 4. When was the first driven well made?

A. I think it was in the spring of 1863.

Q. 5. Where was it made?

A. On a lot on Vinette St., in this village.

Q. 6. By whom was it made?

A. By Byron Mudge, with the assistance of another man.

Q. 7. Give a brief description of the process of constructing this well.

A. I was building a tenant house. The cellar was dug and the workmen sent over to me to know where they were to get water for constructing the masonry. A rod was driven into the ground and then a tube was put down, to the best of my recollection, and 3849 a pump attached to the top of this pipe.

Q. 8. To whom did you make application to make this well? Give a statement of the causes which led to its being made.

A. The question came up among the workmen as to how they
were going to get water to lay that wall without bringing it too far.
I said I expect to build another tenant house on the adjoining lot,
and I will dig a well right on the line between the two lots. They
thought they could not wait, as they were ready to advance the wall,
and I think they suggested to me that Green had driven a pipe in
the ground and had got water on the fair ground. I didn't know
of it at the time. It is so long ago that I cannot recollect all the con-
versations, but according to the best of my recollection they sug-
gested that we have such a one for water if we could get it, as they
were in a hurry. My impression is that one of the men sug-
3850 gested that Mudge was putting them down; that Mudge was
then living on Railroad St., near by. (I mean Byron Mudge.)
According to the best of my recollection, I started out (I cannot remember distinctly) and did not find him (Mudge) at home. My impression is that he was not at home. I found him after a little while, but think I saw Green somewhere before I found him. I don't remember much about the conversation with Green, but found Mudge soon. He came with help and put down the well right along, and we had water within two or three hours. I was not there all of the time they were putting it down. I remember going away part of the time—think I was called.

Q. 9. State the substance of the conversation which you had with Green as near as you now can recollect it.

3851 A. I can't recollect. My impression is that he referred me to Mudge.

Q. 10. Referred you to Mudge for what?

A. As a man that would put the well down.

Q. 11. State, as near as you can now recollect, where it was that you saw Green on this occasion.

A. My impression is that it was between the creek near the carding-mill and his house.

Q. 12. State, as near as you can, the substance of the remarks which you addressed to Green.

A. I couldn't give the conversation. My impression would be that I asked him about such a well, and he referred me to Mudge.

Q. 13. Did you then state to Green in substance the necessity of having a well made quickly for you?

A. I can't recollect.

3852 Q. 14. Do you know positively that this driven well made by Mudge, as you have testified, was made in 1863? If yea, state the reasons.

A. I remember going to Philadelphia that year and spending the winter, and the house was completed during my absence. I think the well was completed in April—in the spring.

Q. 15. How long was this well used?

A. I should say about eight or ten years before it was taken up and put into the west house.

Q. 16. Before it was put into the house and from the time it was put down did it furnish an abundant supply of water?

A. It did.

Q. 17. You have spoken of a person by the name of Green; do you mean Col. Nelson W. Green, who was colonel of the 76th regiment and is one of the complainants in this case?

A. I do.

Examination closed.

Cross-examination:

3853 C. Q. 18. Do you remember the shooting of McNett by Col. Green, in the fall of 1861?

A. I heard the rumor soon after. I saw McNett's wound and saw Green, the next day, but was out of town when it occurred.

C. Q. 19. You will not swear positively that you saw Green just before the well was put down, will you?

A. I cannot. Still, my impression is that I did.

C. Q. 20. Your evidence as to seeing Green is based upon an impression that you have, is it not?

A. It is.

C. Q. 21. What time of day was it that you saw Mudge in regard to making the well?

A. My impression is that it was in the forenoon.

C. Q. 22. Do you remember the men that suggested the
3854 making of the well to you, and their names?

A. I can't recollect distinctly now.

C. Q. 23. Do you know of your own knowledge whether Colonel Green ever saw the well at your house, or not?

A. I do not.

C. Q. 24. You would not swear positively but what you saw Mudge when you first went to his house, would you?

A. I can't recollect. My impression is that I did not.

C. Q. 25. How many driven wells have you at the present time?

A. I have five.

C. Q. 26. And how many have you paid a royalty on?

3855 A. Five.

C. Q. 27. And was the royalty paid to these plaintiffs or their agent or some of them?

A. I supposed Mr. Dibble was the agent of Green and Andrews.

C. Q. 28. Has there been meetings on the part of well owners in this village in relation to this patent or the collection of royalties under it?

A. I remember of being present at one.

C. Q. 29. Do you remember that in 1871, 1872, or 1873 evidence was taken here in this village for some considerable time in relation to this patent and that a number of your townsmen were sworn as witnesses?

A. I was absent most of the time then, but heard such a rumor

Cross-examination closed.

Redirect examination:

3856 R. D. Q. 30. Have you any feeling, directly or indirectly, against the complainants in this case or either of them?

A. The question came up among the workmen as to how they were going to get water to lay that wall without bringing it too far. I said I expect to build another tenant house on the adjoining lot, and I will dig a well right on the line between the two lots. They thought they could not wait, as they were ready to advance the wall, and I think they suggested to me that Green had driven a pipe in the ground and had got water on the fair ground. I didn't know of it at the time. It is so long ago that I cannot recollect all the conversations, but according to the best of my recollection they suggested that we have such a one for water if we could get it, as they
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Q. 16. Before it was put into the house and from the time it was put down did it furnish an abundant supply of water?

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Examination closed.

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A. I was absent most of the time then, but heard such a rumor

Cross-examination closed.

Redirect examination:

3856 R. D. Q. 30. Have you any feeling, directly or indirectly, against the complainants in this case or either of them?

A. I don't know that I have.

R. D. Q. 31. Have you an acquaintance with Mr. Eastman, of the firm of Rickel, West and Eastman, of Cedar Rapids, Iowa, the complainants' solicitors in this case?

A. I have.

R. D. Q. 31½. Has Mr. Eastman acted as your attorney in various transactions?

A. He has.

R. D. Q. 32. Has he visited you at Cortland, and have your relations with him been pleasant?

A. Yes, sir.

Redirect examination closed.

Recross-examination:

R. C. E. 33. Have you ever consulted with him in regard to your driven wells?

A. He has not. I had paid before I saw him.

Examination of the witness here closed.

3857 (S'g'd) H. A. BOLLES, M. D.

Sworn and subscribed to before me this 26th day of May, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

Further proceedings here adjourned until 1.30 o'clock p. m. this afternoon at this place.

WEDNESDAY, MAY 26TH, 1880—1.30 o'clock p. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of witness, EDWIN WILBER, resumed:

C. Q. 75. How many different conversations did you have personally with William E. Tallman in regard to that well that you now remember of?

A. One only that I now remember of.

C. Q. 76. Where was that had?

A. In Mr. Tallman's yard.

C. Q. 77. That is the one you referred to on your cross-examination the other day, isn't it?

3858 A. It is.

C. Q. 78. Did you have any other conversation at that time that you now remember of aside from the conversation in regard to the well?

A. No other conversation that I remember of aside from speaking about putting this pipe in the well.

C. Q. 79. Did you go to Mr. Tallman's with your father at that time?

A. We were in his yard together.

C. Q. 80. Question 79 repeated.

A. I could not say that we went from home to Mr. Tallman's together.

C. Q. 81. Have you any recollection as to that?

A. I have not.

C. Q. 82. How far from Mr. Tallman's house was your father's house, where you were living at that time?

A. It was called half a mile.

C. Q. 83. Did you go to Mr. Tallman's at that time with a horse and wagon, on foot, or how?

A. It is my impression that I was there on foot; I could not be positive.

C. Q. 84. Have you any recollection as to that?

A. I have not.

3859 C. Q. 85. Do you know that your father had any business there at that time with Mr. Tallman?

A. I do not.

C. Q. 86. Do you know whether you and your father left M. Tallman's together or not?

A. My impression is that we did, but I would not be positive.

C. Q. 87. Have you a recollection on that point? And hereafter in answering questions please do not give your impressions.

A. I have no recollection; I do not remember as we did.

C. Q. 88. How long were you there?

A. I could not state the number of minutes we were there.

C. Q. 89. Can you give me any idea of about how long you were there?

A. No more than I have just said; I may have been there five, ten, or fifteen minutes.

C. Q. 90. What time of day was it that you were there at Mr. Tallman's on that occasion?

A. I cannot say what time of day it was.

3860 C. Q. 91. Can you give the month?

A. No, sir.

C. Q. 92. Can you give the year positively?

A. To the best of my remembrance it was in the summer or fall of 1859.

C. Q. 93. Where was Mr. Tallman when you first saw him on that occasion?

A. North of his house.

C. Q. 94. What was he doing?

A. He either had this piece of pipe in his hand or he stood with the pipe lying on the ground near him.

C. Q. 95. Was he at work at anything?

A. I think not, as I never saw him do a bit of work, to my remembrance, in my life.

C. Q. 96. Was he standing near any building when you first saw him on that occasion?

A. I think he may have been a rod or a rod and a half from his house, on the walk from his house to the mill.

C. Q. 97. Do you know whether he was going from the house to the mill?

A. I think that he was standing still when we came up to him.

3861 C. Q. 98. Was the conversation there had that you now remember of between Mr. Tallman and your father or between Mr. Tallman and yourself?

A. I would not say positively whether the conversation was directed to me or to my father in my presence.

C. Q. 99. When you went to Mr. Tallman's at that time from what place did you go?

A. That I can't say.

C. Q. 100. Where did you go to from there?

A. I cannot say where I went from there positively.

C. Q. 101. Did you leave with your father?

A. I think very likely I did, but I would not be positive.

C. Q. 102. Who spoke first on that occasion?

A. I could not tell you.

C. Q. 103. Who spoke first, that you now remember of?

A. I couldn't say which of the parties spoke first.

C. Q. 104. Who said the first thing that you now remember?

A. I couldn't say. All the conversation I remember was what I stated yesterday.

3862 C. Q. 105. Who spoke first, that you now remember of?

A. Mr. Tallman.

C. Q. 106. Who did he speak to?

A. That would be supposition; he would be more apt to speak to father first as an old man, but I would not swear positively which he spoke to first.

C. Q. 107. What were the first words he said on that occasion?

A. I couldn't say.

C. Q. 108. What were the first words he said that you remember?

A. The first that I remember of his saying was that he was going to drive that pipe in the well.

C. Q. 109. What next did he say that you now remember?

A. I don't remember that he said anything further, or that there was any further conversation aside from concerning his putting the pipe into the well.

C. Q. 110. Please state all that you now remember that Mr.
3863 Tallman said on that occasion, giving his language as near as you can.

A. As near as I can remember, it was like this: That he had got this piece of pipe and was going to drive it in the well and try and draw water and save taking his well up and digging it deeper.

C. Q. 111. Will you swear positively that he used the word "drive" instead of the word "put" or "place" in the well?

A. I think that was his exact language, to the best of my remembrance.

C. Q. 112. Question 111 repeated. Please answer — or no.

A. I cannot answer any different from what I answered before.

C. Q. 113. Will you swear positively that you have given the same words that Mr. Tallman used on that occasion? Please answer yes or no.

3864 A. I will not swear positively that those were the exact words.

C. Q. 114. Then will you swear positively that he used the word "drive" instead of some other word or words, such as "put" or "place?" Please answer directly.

3865 A. I will swear that he used the word "drive" or the same in substance.

C. Q. 115. Then do I understand you as testifying that you won't be absolutely positive that the word "drive" was used?

A. I think that the word "drive" was used and no other.

C. Q. 116. You have stated several times that you thought the word "drive" was used. Now I ask you if you will swear absolutely positive that that word was used? Please answer yes or no.

A. I answer as I did before—that I think that was the word used and no other.

O. Q. 117. Do you refuse to answer the question either yes or no?

3866 A. I shall answer as I have before—that I think that was the word used and no others.

C. Q. 118. Do you refuse to answer the question either yes or no?

A. I refuse to answer it any differently from what I have already answered.

C. Q. 119. Then do you mean to be understood that you refuse to answer it by either yes or no?

3867 A. I mean to be understood that I shall answer it no differently from the answer already given.

C. Q. 120. Do you refuse to state to this examiner for the information of the court, on the final hearing of this cause, whether you are absolutely positive that the word "drive" was used in that conversation?

A. I mean to be understood that to the best of my remembrance the word "drive" was used and no other was used.

C. Q. 121. Your answer is entirely irresponsive to the question. Will you pay attention to the same when the notary repeats it and answer the question put?

(Question repeated.)

A. Those were the words used, to the best of my remembrance, and no others.

C. Q. 122. You have testified in answer to cross-question 114 that to the best of your remembrance *that* he used the word "drive" or the same in substance. Now, after giving that testimony, will you swear that you cannot be mistaken as to whether the word
3868 & 3869 "drive" was used by Mr. Tallman or not?

A. I won't say but what I might be mistaken, but I will say that I think the word "drive" was used and no other.

C. Q. 123. Have you now stated to me, on your cross-examination, all that you remember of the conversation or any conversation that you had with Mr. Tallman with regard to the well?

A. I don't think of any conversation at the present time that I had with Mr. Tallman, aside from what I have stated.

C. Q. 124. What reply, if any, did you make to Mr. Tallman?

A. I don't remember as I made any reply.

C. Q. 125. Do you remember whether or not your father made any reply?

A. I do not.

C. Q. 126. Did you leave Mr. Tallman standing there when you left on that occasion?

A. I don't remember whether we left him standing or whether he went with us.

3870 C. Q. 127. What were you or your father doing in relation to your farm-work a few days before or a few days after your conversation with Mr. Tallman?

A. I don't know as we did anything but lay around and eat for a week before or a week after the conversation referred to.

C. Q. 128. Who did you first speak to in regard to this conversation?

A. The first conversation that I had in regard to this well or pipe was in Carr's store, at Preble Corners, in the winter of 1880. It was a general conversation one evening. I presume there were eight or ten persons in the store.

C. Q. 129. Were they all discussing in regard to this well, more or less, at that time?

A. A portion of them were talking concerning this well, but not all of them.

C. Q. 130. Have you had conversations upon the same subject in the store at other times?

3871 A. At one time since then. I think I have had a conversation with Abram Van Denburgh and Jefferson Getman. I think it was in the same store.

C. Q. 131. Have you had conversations in other places upon the same subject?

A. I have with other parties, aside from those mentioned.

C. Q. 132. Hasn't there been considerable talk in your neighborhood in regard to this suit and this well of Tallman's within the last year?

A. Within the last three months it has been spoken of frequently in the store and once in the hotel, to my knowledge. Before that I have no recollection of hearing anything said about it.

C. Q. 133. In the conversations that you have had within the last three or four months haven't you heard expressions from persons against the claim of the patentee and plaintiff in this suit?

3872 A. I can't say that I have. I have no remembrance of hearing anything said against the suit or against the patentee.

C. Q. 134. When did driven wells first come into public use in your town?

A. I could not tell you how many years ago it was.

C. Q. 135. Where was the first driven well that you saw in use that you know of your own knowledge was such?

A. There were several wells put down in the neighborhood at about the same time, and which of them was the first one I saw in use I couldn't say.

C. Q. 136. State who had those several wells put down that you say were put down at about the same time.

A. Charles Squires, William Tallman, Moses Tallman had each one well on their premises said to be a drove well, and there was a pipe put down in a dug well where the cheese factory was.

3873 C. Q. 137. Now, you have stated four that were put down at about or nearly the same time. Did you see the pipe in each of these wells?

A. In one well I did not (on the Squires property).

C. Q. 138. Where was the William E. Tallman well that you saw the pipe in?

A. North of his dwelling-house, maybe forty feet from the west wing, and stood by the platform of a former milk-house.

C. Q. 139. When was the last time you saw it there?

A. I think it was a year ago last winter.

C. Q. 140. Do you know who put that well down?

A. No, sir.

C. Q. 141. Do you know of two other dug wells on Mr. Tallman's farm situated southerly from the well where the windmill was?

A. No, sir; I do not.

3874 C. Q. 142. Did you know of any dug well situated southerly from the well where this windmill was located in 1859 or thereabouts?

A. Years ago there was a dug well in a southwesterly direction, and it was used at one time for watering stock, but whether it was so used after Tallman bought the property I could not say, but I don't think it was.

C. Q. 143. How far was that well from the dug well in question?

—. This well was about fifty-five rods in a southwesterly direction from the windmill well.

C. Q. 144. And how far from the road fence leading east and west?

A. Perhaps two to four feet.

C. Q. 145. Did you know or hear that there was litigation or evidence taken in this village some seven or eight years ago in regard to patent on driven wells?

A. I never heard of it until to-day.

3875 C. Q. 146. On your direct examination you say, "At one time I took off the cover and looked down into the well." What did you see in the well at that time?

A. I saw a lead pipe when I took the cover off.

C. Q. 147. Was that the time that you set the windmill in motion?

A. I think it was.

C. Q. 148. Did you take the cover off at any other time?

A. I don't think now of any other time that I took the cover off; I was to the well at one other time when there was no cover to it.

C. Q. 149. Please state, then, what you mean in answering question 18, which answer is as follows: "At one time I took off the cover and looked down into the well and at another time I came up to the platform, took a stick out and set the windmill in operation, and saw it pump water."

A. I refuse to answer the question. At some other time I
3876 had just as soon answer it as not, but I don't propose to
answer it now.

3877 C. Q. 150. The first time that you were at this well, in May
or June, as you say, was there a cover over it?

A. I am not positive as to whether there was or was not.

C. Q. 151. Was there the next time?

A. I think that at the time I took the stick out and set the windmill going there was a cover on the well, and I raised the cover and looked in.

Further proceedings here adjourned until Thursday, May 27th, 1880, at 1 o'clock p. m., at this place.

THURSDAY, *May 27th*, 1880—1 o'clock p. m.

Convened pursuant to adjournment.
Present: As before.

Cross-examination of EDWIN WILBUR resumed:

3878 C. Q. 152. Did you ever know of any one making a well
from seeing or getting any ideas from this well of Tallman's
where the windmill was?

A. No, sir.

C. Q. 153. You say you think the first time that you were at this well there wasn't any cover over it or pump or pipe with it. Are you quite positive of that?

A. I have no remembrance of seeing any cover over or pump or pipe in the well the first time I was there.

C. Q. 153½. Have you any recollection of being at this well more than once prior to the time that you set the windmill in motion?

A. I don't think of any more times.

C. Q. 154. Describe the cover that was over the well at the time that you set the windmill in motion.

A. To the best of my remembrance, it was a square, rough, hemlock plank box, I should think, perhaps two feet square and twelve to fifteen inches high.

C. Q. 155. Was it over the mouth of the well?

A. I think it was.

3879 C. Q. 156. How did the shaft from the windmill or pitman
go into the well?

A. From the windmill right straight down into the well, to the best of my judgment.

C. Q. 157. How was the pitman connected with the pump as you saw it at that time, and did the pitman go down about to the center of the well?

A. To my best remembrance, it was a straight shaft that run down into the center of the barrel of the pump. I would not be positive as to whether it went down in the center of the well or at one side.

C. Q. 158. What was the upper end of the pitman attached to?

A. What they called at that time the main shaft of the windmill.

C. Q. 159. Did the pitman go down through or one side of this box that was over the well?

A. I would not be positive which. I think the box set on another plank covering over the well.

3880 C. Q. 160. Were there any stays or guides to this pitman, that you remember of?

A. Not as I remember; I don't remember of anything to hold it in its place between the windmill and the mouth of the well.

C. Q. 161. How was it between the windmill and pump?

A. I have no recollection of any stays or guides between the windmill and the pump.

C. Q. 162. What did you go to the well for at that time?

A. Curiosity as much as anything.

C. Q. 163. Was any one with you, and how long did you stay there?

A. I was alone; I cannot say exactly how long I was there; it might have been ten or fifteen minutes; long enough to see the windmill pump water.

C. Q. 164. Was that the first windmill you ever saw working?

A. I would not be positive.

C. Q. 165. That was quite a curiosity, was it not?

A. It was to me.

3881 C. Q. 166. And that curiosity led you to examine it, did it not?

A. Curiosity led me to set the windmill running.

C. Q. 167. Was you ever at the well after that, that you now remember?

A. Yes, sir; I was there once.

C. Q. 168. When was that?

A. Some time after.

C. Q. 169. About how long after?

A. As I said, I refuse to answer that question as to when it was or what my business was.

C. Q. 170. Do you refuse to state what you saw in connection with this well, and done, and how long you were there?

A. It was dark and I could not see much; how long I was there I couldn't say, and what I did I refuse to answer.

C. Q. 171. Was any one with you?

A. Yes, sir.

C. Q. 172. Who was it?

A. George H. Aldrich.

3882 C. Q. 173. Did you take the cover off from the well at that time?

A. I did if there was one on.

C. Q. 174. Was there one on?

A. I would not be positive whether there was or not at that time.

3833 C. Q. 175. If there was one on what did you take it off for?

A. I shall answer no more questions concerning what I did at this last time spoken of at the well.

C. Q. 176. Do you refuse to state all you saw there at that time?

A. It was dark, and I wouldn't swear that I saw any one thing while I was there.

C. Q. 177. Did you go into the well that night?

A. I shall not answer the question.

C. Q. 178. Were you at that well after the year 1864 and before it was filled up?

A. I think I was there after the windmill blew down and the frame was broken and before the well was filled.

C. Q. 179. Was there any pump at the well then?

A. I have no knowledge of my own of any pump in this well, except the windmill pump.

C. Q. 180 Was there any water in the well at that time?

3884 A. I wouldn't say that I looked into the well at that time.

Cross-examination closed.

Redirect examination:

R. D. Q. 181. You have spoken in your cross-examination of a well being made near the house, said to be a driven well. Was that well made before or after William E. Tallman left the farm?

A. I am not positive.

R. D. Q. 182. Do you know when William E. Tallman left the farm?

A. I could not state the number of years ago. I helped move his goods to the depot.

R. D. Q. 183. Did William E. Tallman live on the farm some time after he had sold it?

A. I think he sold the farm in the winter and moved away the fall after.

R. D. Q. 184. Did he rent the farm previous to moving away?

3885 & 3886 A. think he rented or let upon shares his farm for two or three years before he sold.

C. Q. 185. How was this method of obtaining water as practical by William E. Tallman considered in the neighborhood at the time?

A. I have no knowledge of ever hearing anything heard of it. I have lived thirty-eight years neighbor to that farm, up to a year ago last April.

Examination of witness closed.

(S'g'd) EDWIN WILBER.

Sworn and subscribed before me this 27th day of May, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

3887 Thursday, *June 17th,* 1880—10 o'clock a. m.

Convened pursuant to adjournment.

Present: John W. Suggett, Esq., for defendant, and D. L. Hurlbut, Esq., for complainant-

Charles F. White, being duly sworn for defendant, deposes as follows:

3888 Q. 1. What is your name, age, residence and occupation?

A. My name is Charles F. White, my age is 55 years, my residence is Preble, N. Y., and my occupation is a mechanic.

Q. 2. How long have you resided in Preble?

A. Forty-two years, with the exception of about three years while I was in army and lived on a farm in Tully, N. Y. I lived in Preble until 1862.

Q. 3. Did you know Wm. E. Tallman, now deceased, in his lifetime?

A. Yes, sir.

Q. 4. State whether or not you worked for him in 1859.

A. I did.

Q. 5. What was his business then?

A. Farming and running a grist & saw mill.

Q. 6. Where?

A. In Preble, N. Y.

Q. 7. What did you do for him then?

A. My main business was running the sawmill. I worked
3889 on the farm occasionally, when I could not run the mill on
account of water.

Q. 8. How did he obtain water for stock on the farm in that year?

A. From a pump or well.

Q. 9. Where was the well situated?

A. On the west part of the farm.

Q. 10. When was the well made.

A. In the spring of 1859.

Q. 11. How?

A. I should think it was a dug well in the first place; then it was taken up and what we called a drove well made of it.

Q. 12. How was this drove well made?

A. By driving a pipe into the ground.

Q. 13. Did you see the pipe before it was drove?

A. I did.

Q. 14. Where?

A. At Mr. Tallman's.

Q. 15. Who had the pipe?

A. Mr. Tallman and myself.

Q. 16. How long was it?

A. To the best of my recollection it was about four to six feet; I could not tell positively.

3890 Q. 17. What was it made of?

A. Iron.

Q. 18. What was the diameter of its bore?

A. I never measured it, but should think about an inch and a half.

Q. 19. Where did you and Wm. E. Tallman have this pipe?

A. I could not answer directly; it was either in his own shop or the shop of John Earl; I think his own shop.

Q. 20. What were you doing with it?

A. We were fixing to have it sharpened and punched.

Q. 21. Did you see it sharpened and punched?

A. Yes, sir.

Q. 22. Tell how it was done.

A. It was punched with a horseshoe punch; the end of the pipe was pounded together.

Q. 23. Where on the pipe was it punched?

A. About a foot up from the end, I should think; I never measured it.

Q. 24. What was it punched for?

A. To drive into a well.

3891 Q. 25. About how many holes were punched in it?

A. Quite a number.

Q. 26. What was the object of these holes?

A. To let the water into the pipe.

Q. 27. Was Wm. E. Tallman present all the time the pipe was being prepared?

A. I think he was.

Q. 28. Did he then state what he was going to do with this pipe?

A. He did.

Q. 29. Tell what he said at that time.

A. He said he was going to drive it and make a well of it.

Q. 30. Did he say how he was going to drive it?

A. I could not answer that question any more directly than I did.

Q. 31. Did he tell how he was going to get water from this pipe after he had driven it?

3892 A. By attaching a pump to it.

Q. 32. How long were you preparing this pipe?

A. It took us two or three hours, I should think.

Q. 33. Do you know, of your own knowledge, whether this pipe was driven or not?

A. I did not see it drove.

Q. 34. The pipe in possession of notary and shown by photographs introduced by defendant in evidence at Cortland, N. Y., which photographs were marked by the notary, Edward S. More, is here shown witness, and he is asked: Do you identify it as a part of that pipe which you helped to punch and sharpen or was present when it was done?

A. I should think it was the very pipe.

Q. 35. Did you make anything to drive this pipe with for Wm. E. Tallman?

3893 A. I was to work in the saw-mill the day the well was drove, and one of the men came over and wanted a hard-wood block; I think I sawed off a 4 x 6 inch maple scantling to drive the pipe.

Q. 36. Where did you understand at that time that the pipe was being driven?

A. In this well, as they told me; I did not drive it or see it drove.

Q. 37. Were you at the well after that?

A. Yes, sir.

Q. 38. What did you see?

A. I saw the pump in operation; I may be a little too fast; I went over to see the pump; that is what I meant by being a little too fast; I got over there and they had the pipe drove; I think there wasn't a pump attached to it the first time I was there; I couldn't say how long after I was there again and they had the pump attached and to work.

3894 Q. 39. Was it pumping water?

A. Yes, sir.

Q. 40. What power pumped the water?

A. The windmill power.

Q. 41. How long do you know of the well being used and operated by the windmill?

A. I should think it was three or four years in operation.

Q. 42. Was it in operation when you enlisted?

A. Yes, sir.

Q. 43. When did you enlist?

A. November 10th, 1862.

Q. 44. What was the water used for which was obtained from this well?

A. Principally to water stock.

Examination closed.

Cross-examination:

C. Q. 45. You say that you worked for Wm. E. Tallman in 1859. Have you worked for him before or since that time?

3895 A. I haven't worked for him before that time; I worked for him after that; I went there in the spring of 1859, and worked there until I enlisted, in the fall of 1862; then I came back in the spring of 1863 and worked again for him until he sold the farm the same spring to Mr. Klines, and then I worked for Mr. Klines until the next spring.

C. Q. 46. Have you seen and examined the pipe referred to in question 34 here to-day before you were sworn as a witness?

A. I saw it here this morning.

C. Q. 47. And how long has it been since you have seen it before to-day?

A. Twenty years, certainly.

C. Q. 48. And now do you swear positively that that is the same pipe that you saw twenty years ago? Please answer directly.

A. I should think it was, to the best of my recollection, from the looks of the pipe and the way that it is punched, and the way the point is pounded down.

3896 C. Q. 49. I did not ask you for any reasons, nor for what you thought, my question being whether you will swear positively that that is the same pipe that you saw twenty years ago. Please answer yes or no.

A. No, sir; I will not swear positively.

C. Q. 50. Then you haven't any personal knowledge whether that pipe was ever driven in the bottom of any well or not, have you ?

A. No, sir.

C. Q. 51. Did you see the well before you had the conversation with Mr. Tallman first testified to by you?

A. Yes, sir.

C. Q. 52. How deep was it dug?

A. I never measured it; I should think it was somewheres from eight to twelve feet.

C. Q. 53. What kind of a pump was used then?

A. To the best of my recollection it was one of the first patent cast-iron pumps then in use; I don't know what kind of pipe was used.

3897 C. Q. 54. Did you ever examine to see what kind of pipe it was?

A. No, sir.

C. Q. 55. Who fixed that pipe that you have referred to as being done at Mr. Tallman's or Mr. Earl's shop?

A. Mr. George Way, I think.

C. Q. 56. How came you to be there?

A. I was at work for Mr. Tallman, and if it was fixed in his shop at home I was there often. If it was fixed in the other shop I hitched up his horse and went with him.

C. Q. 57. Did you, as you now remember, have any business at either of those shops at the time the pipe was punched; and, if so, what?

A. I couldn't say; I don't remember of anything.

C. Q. 58. Then, as you now remember, you first saw the pipe in the shop, didn't you ?

A. I couldn't say where I first did see it.

Further proceedings here adjourned until 1 o'clock this afternoon, at this place.

3898 THURSDAY, *June 17th*, 1880—1 o'clock p. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of the witness, CHARLES F. WHITE, resumed:

C. Q. 59. Do you remember of seeing the pipe before you saw it at the blacksmith shop?

A. I think I did.

C. Q. 60. Where?

A. I think I saw it at Wm. E. Tallman's house.

C. Q. 61. How long before?

A. I couldn't say.

C. Q. 62. Just what did Mr. Tallman say to you at the blacksmith shop? Give the conversation in full.

A. I couldn't say as he directed any special conversation to me any more than he did to others in the shop at the time concerning the punching of the pipe and what he was going to do with it.

3899 C. Q. 63. Please give the conversation that any one had with Mr. Tallman at the blacksmith shop:

A. I couldn't remember a word to tell what was said.

C. Q. 64. Who was in the blacksmith shop at the time?

A. Mr. Tallman and myself and Mr. George Way, if it was done in his shop; that is the best of my recollection. I don't remember of any more being present, anyway.

C. Q. 65. Who took the pipe away from the shop?

A. I couldn't say.

C. Q. 66. What time of the year was this?

A. I should think it might have been in June, July, or August; to the best of my opinion it was July or August.

C. Q. 67. Of your own knowledge, are you able to swear positively that you saw the pipe after it was taken from the shop?

A. I don't know that I ever saw it afterwards until I saw it here to-day.

C. Q. 68. What became of the pump that was used at that well prior to the erection of the windmill?

A. I could not say.

3900 C. Q. 69. Was it at the well after the erection of the windmill?

A. I never saw it there—the same pump.

C. Q. 70. How many times were you at this well to notice it, after the erection of the windmill, during the year 1859?

A. I couldn't tell the number of times.

C. Q. 71. After they abandoned the pump that you first saw used at this well what next did you see at this well?

A. The next that I see of it the windmill was in operation.

C. Q. 72. Did you look into the well and examine it particularly after the windmill was in operation so as to be able to describe fully what you saw?

A. I never looked into the well at all or examined the machinery to see how it was attached together.

C. Q. 73. Please state, as near as you can, what was said by Wm. E. Tallman at the blacksmith shop, giving his language as near as you can.

3901 A. All that there was said was that he was punching this pipe and was going to drive a well to see if he couldn't get water that would last; that was the substance of it—or that would be durable.

C. Q. 74. Will you swear positively that he used the words "was going to drive a well?"

A. No, sir.

C. Q. 75. Will you swear positively that he used the word "drive" at all?

A. No, sir.

C. Q. 76. Do you remember of the windmill having some of the wings broken at one time?

A. No; I don't remember anything about it, so far as that is concerned; I remember it was out of repair occasionally.

C. Q. 77. Have you stated all the conversation that you had with Mr. Tallman at the blacksmith shop, as near as you now remember?

A. I think I have.

C. Q. 78. Did you talk upon any other subject that you now remember?

A. Not anything as I remember of now.

3902 C. Q. 79. When was your attention first called to what you saw as having any significance in regard to the controversy over the patent driven well?

A. To the best of my recollection it was about a month ago, by Moses Tallman.

C. Q. 80. Did he ask you what you knew about it?

A. He did. He came where I was at work and asked me about it.

C. Q. 81. Who subpœnaed you?

A. Mr. Suggett.

C. Q. 82. Then, as I understand, you haven't heard that well spoken of from about the time it was made until Mr. Tallman spoke to you, had you?

3903 A. I have not.

C. Q. 83. Who dug the well?

A. I don't know, nor who erected the windmill, nor where he got it.

Cross-examination closed.

Redirect examination:

Q. D. Q. 84. Did this well, before the windmill was erected, become dry?

A. I think it did.

R. D. Q. 85. Do you know?

A. I don't know of my own knowledge.

R. D. Q. 86. Did you hear Wm. E. Tallman talk anything about making a well by driving a pipe into the ground until it was projected down into the water and attaching thereto a pump prior to the time that you were present at the blacksmith shop, when 3904 the pipe was punched and sharpened? If yea, state what he said, as near as you can recollect the substance thereof.

A. I don't recollect anything.

Redirect examination closed.

Recross-examination:

R. C. Q. 87. Who asked you to saw the scantling so as to make a block, as you have testified?

A. I can't tell.

R. C. Q. 88. Can you state just what was said to you by that person?

A. No, sir; I couldn't.

R. C. Q. 89. Did you ever know of a driven well as now in use being made from ideas gathered from this well of Tallman's, where the windmill was?

3905 A. No, sir; I never did.

R. C. Q. 90. When did driven wells first become of general use in the town of Preble?

A. They were quite a common thing about 16 or 18 years ago, I should think.

Recross-examination closed.

Redirect examination:

R. D. Q. 91. Was this way of getting water, by sharpening a pipe, punching holes in it, driving it into the ground, and attaching a pump, as practiced by Wm. E. Tallman in 1859, as you have testified, a subject of common and public talk in and about the town of Preble at the time, and was it then and there considered a new thing, and was Wm. E. Tallman given the credit of the invention or discovery?

3906–3910 A. I don't remember of hearing any talk about it.

Examination of witness closed.

(S'g'd) C. F. WHITE.

Subscribed and sworn to before me this 17th day of June, 1880.

[L. S.] (S'g'd) M. STANLEY BIERCE,
Notary Public.

3911 In the Circuit Court of the United States, District of Iowa.
In Equity.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS *et al.*
vs.
GEORGE LELAND.

And now, to wit, on this 20th day of April, A. D. 1880, came Rickel, West & Eastman, solicitors for complainants, and Lake & Harmon, solicitors for defendant, and, waiving service of notice and time of hearing, consent to proceed to take the testimony of the witness for the defendant before me, I. H. Kuhns, a notary public in and for Black Hawk county, State of Iowa, at my office, in the city of Waterloo, in said county.

A. BUTTERFIELD, being produced, cautioned, sworn, and examined, testified as follows:

Q. 1. What is your name, age, occupation, and where do you reside?

A. A. Butterfield; am seventy-four years old; am a farmer; reside at Raymond station, Black Hawk county, State of Iowa.

Q. 2. How long have you resided in Black Hawk county, Iowa?

3912 A. 'Twas twenty-one years last June since I came to Iowa, and came to Black Hawk county in September following.

Q. 3. What has been your business since you came to this county?

A. Farming and real estate business.

Q. 4. Have you heard of driven wells during that time; and, if so, when did you first hear of them?

A. I have heard of such wells. I think in August, 1865, was the first that I heard of them.

Q. 5. Did you see or know of one being made at that time; if so, where was it made, and how? State fully.

A. I did see one made at that time; it was at my place at Raymond station, in Black Hawk county. It was made by driving a rod of gas pipe; the gas pipe then was a plug made of iron and turned to a point; then holes drilled in the gas pipe above the plug; quite a number; well, this was drove into the ground, and after being drove it was examined whether they had struck water; that was done by a piece of lead attached to a line, and that was dropped into — and they could tell how deep the water was in the pipe. When it was ascertained that there was water enough in depth to supply the demand, then the driving was stopped and a pump attached to the gas pipe; then they pumped water; that was the making of the well.

3913 Q. 6. State whether there was any screen over the holes drilled in this gas pipe at the lower end.

A. No, sir; not any.

Q. 7. What was the size of the holes drilled in the gas pipe?

A. From an eighth to three-sixteenths of an inch in diameter.

Q. 8. How long was this well used in that way?

A. O, probably four hours.

Q. 9. What became of it then?

A. It was drawed out of the well. I mean the gas pipe was drawed out of the well.

Q. 10. In what condition was the pipe when it was taken out of the well?

A. There was from three to five feet of sand in the bottom of the gas pipe.

Q. 11. Could water be pumped through this sand while the pipe was in the well?

A. Very little.

Q. 12. State what you did with the pipe when you had it out of the well.

A. There was a tube-like — of cast iron that was screwed on at the end of the gas pipe; not one that was taken out, but another like it, except the drilled holes; this piece of cast iron was cast in bars, I think; four divisions; might have been more; that 3914 was screwed onto the gas pipe; then a perforated tin case drawed over that cast-iron tube and held by a shoulder at the top; then it was put down in the same hole again; then the pump was put on and pumped water and sand for a short time.

Q. 13. How long was this well used in that condition?

A. From eight to ten years.

Q. 14. Have you, since August, 1865, made or seen made other wells known as driven wells?

A. I have seen and made such wells since that time.

Q. 15. What years did you make wells of that kind?

A. I made in 1866 some wells of that kind, and I think I made some in 1867.

Q. 16. Who made this first well that you have described?

A. His name was Hazzard; I don't know his full name.

Q. 17. State whether he claimed to have a patent on this process of making wells, as you say he made this one.

A. He told me he had.

Q. 18. Did you see him make any other well or wells than the one you have described?

A. No, sir.

Q. 19. Did he attempt to make any other well at your place?

A. He did.

3915 Q. 20. State what he did in that attempt and how he succeeded; describe fully what was done and the result.

A. He undertook to drive a well the same as that of mine; he drove his rod into the ground about twenty feet, and the result was the rod is there now.

Q. 21. Was it a rod or a hollow tube that he drove in this attempt?

A. It was a tube.

Q. 22. Did he attach a pump to it and pump water?

A. No, sir.

Q. 23. Did he drive it down into water in that ground?

A. That I am not able to answer.

Q. 24. When you made these wells, in 1866, state how you made them; describe the process fully.

A. I took a gas pipe sixteen or eighteen feet long, and took it to the foundry here and had a very nice plug made to put in the end so it would drive nicely, and I had a few holes bored in it to let water in it so I could sound it; then I would go to work and drive this down, and keep driving until I struck water by adding pieces of pipe; when I struck water I had a cast-iron tube made to put — end of the gas pipe with bars; then I had a casing of perforated tin made to cover this cast-iron tube; that was screwed onto the end of
the gas pipe and put down into the hole that was made by
3916 driving this first pipe; after this pipe was put down I put the
pump onto pump the water and sand at first; that completed the well; made a perfect well after pumping; all the sand and water would come at first.

Q. 25. Did you, in making these wells, pump anything out of the first tube that you drove down?

A. No, sir.

Q. 26. How much sand did you have to pump out after the second tube was put in before the water come clear?

A. That would vary very much; where it was drove into gravel or coarse sand it would not come through the perforated tin very much; about three pailsful-; the 4th pailful would be clear; in fine sand it would take several pailsful- before it would come clear.

Q. 27. In your making wells did you ever have this perforated tin break or tear so as to let sand into the cast-iron tube?

A. Very frequently; sometimes 2 or three in putting down — well.

Q. 28. What would be the result when these tins broke or tore?

A. The result would be the pipe filling up with sand and stopping the flow of water.

Q. 29. How long would you generally pump after the perforated tin broke before the pipe would get so full of sand that you could not pump water through it?

A. That is a point I cannot answer, because you could pump a little water through the sand if your suction was good; if the case was broken I could tell, by pumping a minute, by the appearance of sand.

3917 Q. 30. When your perforated tin case remained whole why did not sand continue to come up as long as you pumped?

A. Because it would pump all the fine sand out at first and leave a coarser grade around the tin, and the coarse sand would form a filter around the tin and keep the fine back; when the tin case was broken grains of sand would be pumped out that could not come through the tin.

Q. 31. In case the point was left in with the broken tin would the tube fill with sand and stop the flow of water?

A. Not entirely.

Q. 32. What effect would it have on the flow of water in that condition?

A. Well, that is a point I could not get exactly at, but I should judge not more than $\frac{1}{12}$th of the water could be drawed, and then it would be in a state unfit for use.

Q. 33. In how many places did you make wells in 1866 and 1867?

3918 A. That is a question I can't answer; I don't know; I could not tell.

Q. 34. In how many different counties did you make them?

A. I think not any except in Black Hawk county.

Q. 35. In how many towns in Black Hawk Co. did you make then?

A. 4, 5, or 6 towns. I could not tell exactly how many.

Q. 36. Did you ever see a copy of the specifacation and drawing attached to the patent reissue 4372, dated May 9th, 1871, issued to Nelson W. Green?

A. I never saw one until the one shown me to-day, as I remember.

Q. 37. Now, examine the drawing shown you and state whether from your experience in making wells in Black Hawk county, Iowa, a well could be made in the soil in this county that would be a successful well by driving an open-ended tube into a hole made into a water-bearing stratum by driving a rod into such stratum and then withdrawing the same.

A. O, I can answer that question very readily. I don't think it would — a possible thing to make with these things a successful well in the soil of Black Hawk county; am sure it would be a forlorn hope with me to make one.

Q. 38. State, if you can, why you could not make a successful well with the implements shown in the drawing in the soil of Black Hawk Co.

A. Well, that pipe would immediately fill up with sand and gravel and stop the flow of water.

Q. 39. Give the names of the different towns in which you have made wells in this Co.

3919 A. In Waterloo township, Eagle township, Payner township, Lester township, Big Creek t'ship, Spring Creek township, & E. Waterloo township.

Q. 40. How is the soil in those different townships in which water is found? State whether it is about the same as to the fineness of the sand.

A. Well, sir, it is variable; in some parts it is coarse and some very fine indeed, so that a common perforated tin would not answer at all.

Q. 41. Did you find any place in either of those townships where a successful well could have been made with the tools shown in the drawings as attached to the patent here shown you?

A. No, sir.

Q. 42. Could you approximate in any degree nearly to the number of wells that you did make in 1866 & '7? If so, state as nearly as you can.

A. I cannot tell; it is 14 or 15 years ago, & it has passed out of my mind. By thinking it up a little I could refer to a good many wells I have put in; probably I have put in from 15 to 20 wells.

Q. 43. In making these wells did you drive a solid rod to make the holes in any of them?

A. No, sir.

Q. 44. Was the hole in all cases made by driving a tube?

A. Yes, sir.

Q. 45. Did you make any wells — the number named by you, after 1867?

3920 A. Not any, I think.

Direct rests.

Cross-examination:

X Q. 1. How do you fix the date of making this first well?

A. Because I recollect it was right off after wheat harvest.

X Q. 2. Is that the way you fix the year.

A. No, sir.

X Q. 3. Please state by what data you fix the year.

A. I fixed it in this way: in 1865 I had this well put down; I thought it a humbug at first. After trying the experiment for one season in 1866 people had heard of this well and called to see it, to see the operation of it and see whether they could have a well put down. I have a memorandum of some wells that I put down in 1866, and this one of mine was put down the year before.

X Q. 4. When did you last refer to these memorandums in order to refresh your recollection as to the date of the first well?

A. Well, I was called on the time these men were through here getting their royalties. I was called on by one or two or three gentlemen from this place — what time that this well that I had put down was put down, and I found a contract for a deed for putting down these wells partly drawn, with the dates attached to it.

X Q. 5. What was this date?

3921 A. 1865.

X Q. 6. Did you purchase of this man Hazzard the right for any territory or the right to use any of these wells put down by you?

A. I did not buy any territory. I agreed to pay a royalty of a certain amount for any well I would put down. The royalty was one dollar apiece for what I would put down in a certain length of time.

X Q. 7. Where was this man Hazzard from?

A. He was from Otsego Co., N. Y.

X Q. 8. Did he show you any letters patent or deeds of tenure?

A. He showed me papers he called patents of tenure.

X Q. 9. Did you ever ascertain or not whether they were genuine?

A. To my own satisfaction I did ascertain that they were not.

X Q. 10. How long did he remain in this section of the country?

A. I could not tell; probably not more than two or three months; perhaps not that length of time; perhaps not more than three or four weeks.

X Q. 11. Now state, as near as you can remember, the language used by this man Hazzard in explaining to you the philosophy or process of making a well according to the method he claimed to have patented.

A. He showed me the philosophy by driving the tube into the ground and then putting his pump on. He says after putting the pump on and pumping out the sand awhile you keep on pumping and in a day or two it will come clear.

X Q. 12. What did he claim were the advantages by this method or process of constructing wells?

3922 A. That it was a great deal cheaper and the water better, because it was not subject to anything that was bad to get into the well.

X Q. 13. In your direct examination you say that a successful well could not be made after the manner described in the specifications and drawings #4372, issued to Nelson W. Green; did you ever try to make a well in that manner in the soil of Black Hawk Co.?

A. I have not exactly.

X Q. 14. Suppose a tube, such as is represented in the drawings referred to, should be driven or placed in a water-bearing strata composed of any coarse gravel, the diameter of the pipe being $1\frac{1}{4}$ inches, with a pump attached to the top of the tube, could water be obtained or would that be a successful well?

A. No doubt it would be a successful well.

X Q. 15. Then if you had large experience in making this kind of wells, being an educated expert in that line, would it not at once occur to you in making one of that kind of wells in a stratum of fine sand that it would be necessary to put a plug in the bottom of the tube, and either have the perforations in the sides very fine or else have them covered with a screen?

A. It would occur to me that it would be necessary to put a plug into the tube and cover it with a screen or have fine holes.

X Q. 16. Could you make a well by driving a solid, blunt point on the end of a tube into the ground?

3923 A. I do not see why you could not if the other attachments were all right.

X Q. 17. Did you ever try to make one in that manner?

A. I never did.

X Q. 18. Are you in any manner interested in this suit pending?

A. I am not.

X Q. 19. Have you heard a good deal of talk on the driven-well subject within the last year & a half?

A. Oh, I have considerable.

X Q. 20. Has there not been a good deal of excitement in this county caused by the attempt to collect royalty on the driven wells?

A. I think there has—yes; there has been a good deal.

X Q. 21. Is there an organization in this county for the purpose of preventing the collection of royalties on driven wells or has there been such an organization?

A. I have heard that there was such an organization, but how it is I don't know.

X Q. 22. Was you subpœnaed to appear and testify in this case?

A. I was not.

X Q. 23. Then you came voluntarily to testify in this case?

A. I came because Col. Lake requested me to come and testify.

Cross rests.

Redirect:

Q. 1. What was the date of the contract you found which you say was partly drawn in regard to this territory which Hazzard claimed?

A. Aug., 1865.

3924 Q. 2. When was that contract made with reference to the time that Hazzard made your well?

A. It was made about the same time.

Q. 3. Did Hazzard claim that he had patented a process or that some one else had and that he owned the territory from them?

A. He claimed that some one else had the patent—a man that, he claimed, lived in Cortland village, N. Y.

Q. 4. State, if you know, who the man was that Hazzard claimed had a patent on this process of making wells.

A. He told me his name was Suggett.

Q. 5. Did he claim that his manner of putting in wells was in accordance with Suggett's patent?

A. He did.

R. D. Q. 6. How long did the first well he put in for you work before it was taken up and fixed over?

A. He came there and put in the well and it first throwed up a good deal of sand; we kept on pumping; the longer we pumped the less water came up. He says, You let it stand and settle a few hours and then pump again. Well, he did not stay till I commenced pumping again and it threw up sand and water. He called again towards night and said, You keep on pumping, and in the course of 2 or 3 days the water will come clear and nice. It was probably in 8 or 10 days he came around again. It became dead, so you could not pump at all; then we took a log chain and pulled it up.

3925 R. D. Q. 7. What was the condition of the sand in the tube when you took it up?

A. Well, sir, I think the sand was 8 or 10 feet deep in the tube.

R. D. Q. 8. Was it after this that he put in the cast-iron point covered with a perforated tin screen over it, as you have testified?

A. Yes, sir.

R. D. Q. 9. How long after that?

A. Well, probably 2 or 3 days; he went off and said he would have something fixed so it would be all right.

R. D. Q. 10. Would it occur to you to put a plug in the end of a tube and a screen over the holes in the pipe if you had never heard of that method, but had been shown the implements shown in Green's patent, without any previous experience in making wells where the sand was fine in the water-bearing stratum?

A. No, sir.

R. D. Q. 11. Did the 1st well you ever saw made of this kind have a plug in the end of the pipe when it was put into the ground?

A. Yes, sir; it did.

R. D. Q. 12. Was the second well you saw made of this kind—made with a tube that had a plug in the end and a screw over the holes?

3926 A. Yes, sir.

R. D. Q. 13. Was it from the fact that you knew such appliances were used that you say it would occur to you to put a plug in the end of the pipe and a screen over the holes when you was asked that question in reference to the drawings in Green's patent?

A. Well, it did occur to us, the first well we put down, to put the plug in and a screen over the holes, and we did do it, and it effected a cure. It made a grand well.

R. D. Q. 14. Did not Mr. Hazzard put a plug in the pipe before he put it down the first time?

A. He or I done it; I don't know which; it was done.

R. D. Q. 15. Did not Mr. Hazzard have this plug with him for that purpose?

A. No, sir; I think I made the plug myself.

R. D. Q. 16. Who suggested putting in this plug, Mr. Hazzard or you?

A. Mr. Hazzard.

R. D. Q. 17. Who got the screen made to put over the holes or slots in the cast-iron point?

A. Mr. Hazzard.

3927 R. D. —. 18. Without the assistance of Mr. Hazzard would you have thought of putting these things on the pipe to make the well?

A. I don't think I should, and it is very simple, too.

Redirect rests.

Recross-examination:

R. X Q. 1. You state in your redirect that it was eight or ten days after the first tube was put down before it was taken up again. Did you not make a mistake in that answer?

A. I think not.

R. X Q. 2. In your direct examination you testified it was not used over four hours in that position, and was then taken up. Were you mistaken then?

A. I meant to have stated in this way which is the way it was: After the pipe was put down and the pump put on then we pumped, both of us, a spell, and there came up a good deal of water and sand. Then he says, I want to go away, and you let this stand three or four hours; then you pump again, and continue to pump occasionally for two or three days, an hour or so each day, and it will all come right; and if it did not he would come around again in a week or ten days. Well, the second day after he had gone away I tried to pump and got out very little water and some sand. The next 3928 day I tried it the same way again, and finally gave it up as a dead thing. When he came around again we pulled it up in six or eight days.

R. X Q. 3. With the experience you have now had, if you were required to make a well in a water-bearing stratum composed of fine sand and you had just such tubes or implements as were shown you in Green's specification, would it not occur to you that it would be necessary to put a plug in the end of the pipe and either very fine holes or a screen to keep the sand out?

A. Why, of course, it would occur to me.

Recross rests.

Re-redirect examination:

2 R. D. Q. 1. Why would it occur to you to do so? Explain fully.

A. Why, the knowledge that I have from practice and experience.

(Signed) A. BUTTERFIELD.

Subscribed by the above-named A. Butterfield and sworn to by him before me and in my presence this 20th day of April, A. D. 1880.

(Signed) I. H. KUHNS,
Notary Public.

Adjourned to April 21st, 1880, at 8 o'clock a. m.

3929 And now, to wit, April 21st, 1880, at 8 o'clock a. m., all the parties are present.

A. R. HIGHSMITH, *was* produced, cautioned, sworn, & examined on part of the defendant, testified as follows:

Q. 1. What is your name, age, place of residence, and occupation?

A. My name is A. R. Highsmith; my age is forty-seven years; my residence is Waterloo, Iowa; my occupation is a common laborer at present.

Q. 2. How long have you lived in Waterloo, Iowa?

A. Eighteen years this fall.

Q. 3. What has been your business since you lived there?

A. For about seven (7) years I was in the well business; two years I was farming; I was in the army twenty-seven months.

Q. 4. Did you at any time make what is known as driven wells?

A. Yes, sir.

Q. 5. How long did you make those kind of wells?

A. Well, I have put them in, off and on, since 1868.

Q. 6. When did you first put in that kind of a well?

A. It was in the spring of 1868.

Q. 7. State your method of putting them in at that time; describe it fully.

A. Well, in the first place we would dig down about five feet, three by three and a half feet; then we would screw the point 3930 into the gas pipe, then we had a plug that screwed into the top of the gas pipe, then we drove with a wooden maul until we reached water, then we attached the pump; the well was complete, provided it was in sand and gravel.

Q. 8. How many wells did you make in that way?

A. Well, sir, I could not state the number.

Q. 9. State, as nearly as you can, about how many you made in the manner above described.

A. I don't know how to come anywhere near it; I made a good many; I am certain I put in as many as one hundred.

Q. 10. In making these wells, did you use a rod or tube to drive down before you drove down the tube to which you attached the pump?

A. No, sir.

Q. 11. What kind of a point was it that you put on the end of the gas pipe before driving it?

A. Well, we used three or four different kinds; the first one I used was about eighteen inches long; it was called a slot point; it had holes, I should judge, three inches long; they were sawed in the sides of the pipe. The next, I think, was called the Bignell point, that was about two feet and a half long, with holes bored in the side of the pipe, and screens over each hole. Then I used Eureka point; that was about two and a half feet long, the pipe was perforated, then there was wire screening over the whole length 3931 of the point, then there was a fine brass wire wrapped over that the whole length of the point. I believe that was all that I used.

Q. 12. In how many counties, and what are their names, have you made this kind of wells in Iowa?

—. One in Floyd, Chickasaw, Hamilton, Butler, Black Hawk, Grundy; that is all I can think of at present.

Q. 13. About how many wells in all of the kind known as driven wells have you put down in the State of Iowa?

A. Well, I should say between two hundred and five hundred.

Q. 14. Have you seen the drawings attached to Green's patent, reissue No. 4372, or a copy of the same?

A. I think this is the first time I ever saw it.

Q. 15. Look at the drawings as shown you and state whether, in your opinion, a well could be made in the soil where you have made these wells, and be a successful well, by using an open-ended tube as shown in said drawings, a copy of which you now have.

A. I should say not.

Q. 16. State fully the reasons why you think such a well would not be successful.

A. Well, because the sand would run into the pump; I mean would be drawn in by the suction and wear out the valves.

3932 Q. 17. State whether in your opinion the sand would fill the pipe full, so that water could not be drawn through it.

A. Well, it would in most places.

Q. 18. Have you, in your experience in making wells in Iowa, had any difficulty in the working of them that was occasioned by the sand getting into the pipe?

A. Yes, sir.

Q. 19. State what means you took to overcome that difficulty; state fully.

A. Well, we tried several experiments. I have dug down; sunk a curb into the water, then filled around the tube with coarse gravel; then I used what was known as Tillollson Bros.' reservoir. These are the only two methods, I bel*ei*ve, I used where the screen would not work.

Q. 20. Did you make any wells without using a screen over the holes in the point?

A. Yes; I made a few of those slot points.

Q. 21. How did those work. State fully.

A. Well, they would work in coarse gravel; in fine sand they would not work, because the fine sand would get into the pump and valves; very fine sand would stop up the pipe entirely; I have had that happen.

3933 Q. 22. When you used the screen point, did they ever break or tear the screen; if so, what would be the effect on the well?

A. I have had them tear in driving. I would have to take them up and put on new screens, because they would let in too much sand.

Q. 23. In how many towns in Black Hawk county have you put in these wells? Give the names of the same.

A. I can think of but four—Waterloo, East Waterloo, Poyner, and Cedar Falls.

Q. 24. In the soil as it is in either of those townships could you make a successful well by putting down a tube with the lower end open and no screen over the holes drilled in the tube?

A. Not in those places where I put wells.

Direct rests.

Cross-examination:

X Q. 1. Would not a well made as described in the last question work well in very coarse gravel?

A. Well, it might be made to work, provided the gravel was coarse enough.

3934 X Q. 2. Suppose that you had constructed a large number of wells in a stratum where the gravel was very coarse by putting down just such a tube as is described in Green's specifications and then should attempt to make a well in a stratum composed of fine sand, not having had any experience in putting in plugs in the end or a screen over the holes, would it not occur to you, as a practical mechanic in that line, that this change of formation would necessitate putting a plug in the pipe and either make the holes very small in the pipe or use some kind of a screen?

A. Well, I don't know whether it would or not, if I had not seen them used.

X Q. 3. Then you mean to be understood that you would not know that it would be necessary to stop up the end of the pipe under just such circumstances as has been explained to you in the last question to keep out the fine sand?

A. Well, the plugging up the end of the pipe would not keep out the sand with the holes in the side; I should pull it out and give it up as a bad job.

X Q. 4. Then, with your experience as a practical mechanic in the art of making wells, you state that you would not know what to do to this end and point to prevent the sand getting in and would abandon the work, would you?

A. I should; without putting in a plug and putting over a screen I should have to abandon it.

X Q. 5. Then it would occur to you that it would be necessary to put in a plug and a screen over it, would it, in order to keep the sand out?

A. It would, with what experience I have had in the drive-well business.

3935 X Q. 6. But if you had never used a plug or screen and had only put down wells in very coarse gravel you would not know that it was necessary to put in a plug and use the screen where there was fine sand, but would abandon the effort to make a well, would you?

A. Well, I don't know. I have not had the trial of that kind, because since I commenced using those points we have had other methods of making wells.

X Q. 7. Is that as fair and intelligent an answer as you can or will give to the question?

A. Well, I think it is as fair a one as I can give at present.

X Q. 8. Are you in any manner interested in the result of this action?

A. Not that I know of.

X Q. 9. Are you or have you been at any time a member of any organization having for its object the prevention of the collection of the royalties of the driven wells or defending actions brought in connection with the driven-well business?

A. No, sir.

X Q. 10. Do you know of such an organization?

A. I do not.

X Q. 11. Have you not been present at meetings held in opposition to the driven-well interest?

A. I have not.

X Q. 12. Do you know of such meetings having been held?

A. Only by hearsay. I have no knowledge of my own.

3936 X Q. 13. Has there not been a good deal of excitement in this locality, caused by the attempt to collect royalties within the last year or two?

A. There has been considerable talk; I don't know whether you call it excitement or not.

X Q. 14. Were you subpœnaed here to testify in this case, or did you come voluntarily?

A. I was asked if I would come without a subpœna; I told them yes.

X Q. 15. Who asked you?

A. Mr. Andrew Thompson.

X Q. 16. What did he say to you? State fully.

A. He came to me last Saturday; asked me if I could be present Tuesday afternoon to testify in this case of the driven wells, and whether I would come without a subpœna. I told him I would, provided I would get my fees; I told him I was unloading lumber, and would have to hire another man in my place. Well, he said the fees would be all right; by not being subpœnaed it would save them that much. I bel*ei*ve that is about all.

X Q. 17. Save who that much?

A. He did not say who; he said us; he didn't mention any names.

X Q. 18. When did you last make a driven well?

A. One week ago last Monday.

X Q. 19. Who did you make it for?

A. Mrs. M. H. Vaughn.

3937 X Q. 20. Give the location and describe how you made it.

A. One block north of the Illinois Central depot, in the city of Waterloo; I dug down four feet, three by three and a half; I screwed the point into the gas pipe; I had a fence post I laid across the top of the pipe, and drove with a sledge on top of that; I drove it down about seventeen feet, then I put the pump on, and the well was complete, and we pumped water out of it.

X Q. 21. When did you make the last well prior to that, and who for?

A. Well, I forget the date; it was for the Illinois Central Railroad Company.

X Q. 22. Please locate this well as near as you can, and state, if you can, if it was similar to the one last described. If not, describe how it was made?

A. In Charles City, Floyd county, Iowa; well, we drove it a little different; that was all the difference.

X Q. 23. State, if you please, when, where, and for whom you made the last well prior to the last one you described, and if it was made substantially the same as the last two.

3938 A. I was working for the company about two years, but cannot recollect the order in which I put them in.

X Q. 24. About how many wells did you make for the Illinois Central of that kind?

A. I can think of but five at present.

X Q. 25. Who did you make the last well for prior to making the one for Mrs. Vaughn, leaving out those you made for the Illinois Central? Locate it, give the date as near as you can, and state if it was made substantially the same as the one you made for Mrs. Vaughn.

A. It has been about three years that I put any down, except for Mrs. Vaughn and the company, and I cannot remember who for.

X Q. 26. Have you any books of account, memorandum, or data by which you can furnish information as to the wells you have put down that you have testified to in your direct examination?

A. I have not.

X Q. 27. State, then, if you can, please, for whom you have put down wells in East Waterloo other than the Vaughn well.

A. Peter Rief, John Tynan, Merrill & Co., Thompson & Bro., S. A. Berroval, C. S. Blodgett, H. B. Giford, W. F. Starr, John Crone, W. J. Ackley.

X Q. 28. Were these wells that you have referred to as having
3939 been put down in East Waterloo all made substantially in the same way as the Vaughn well?

A. They were not all put down in the same way.

X Q. 29. Please explain what the difference was—that is, any material difference.

A. The difference was in a good many instances; I bored down to the water with an auger—with a three-inch auger—in place of driving; that was all the difference.

X Q. 30. In cases where you used the auger and bored to water did you do any driving or forcing of the tube that had the point on it?

A. I did.

X Q. 31. About how far did you force it below the surface of the water strata?

A. Well, I would leave that to the person for whom I was putting in the well; from four to eight feet.

X Q. 32. State for whom you made wells in Waterloo township; give the names and location as near as you can, and state the kind of well, whether bored or driven, in each case.

A. I don't remember of — one in Waterloo township; I don't
3940 remember the name; it was eight or nine years ago; it is on the corner of Fifth St. and Commercial street, on southeast corner, at a brick house; it was a driven well.

X Q. 33. State now, if you please, for whom you made wells in Poyner township; give the location and kind of wells.

A. I don't remember of putting in but one in Poyner township successfully; his name was Carey; it is one mile north of city of Waterloo limits and seven miles east, I think; it was a driven well.

X Q. 34. State for whom you put in wells in Cedar Falls township.

A. I don't remember the names; it was in 1868.

X Q. 35. When did you put in the well for Thompson & Bro. in East Waterloo, and state how it was made.

A. I am not positive about the date; I think it was in 1869; I would not be positive; I think I bored down to the water and then forced the pipe down; I don't remember how many feet; it was not less than four feet.

X Q. 36. How late had you made any of these wells aside from the Vaughn well and the Illinois Central wells and the wells you have testified to in Black Hawk county?

A. Well, I don't know of any others except what I have mentioned.

3941 X Q. 37. You stated in your direct examination that in some instances you used a reservoir or filter; now state, if you please, for whom you put in a well that you used this filter or reservoir—that is, the last one.

A. I believe the last one was for Mrs. Updike, in East Waterloo?

X Q. 38. Now, state particularly, if you please, how you made that well?

A. We had a ten-inch auger that we used to bore down to the water; then we had an iron curb fastened together in sections with buckles; then we had an eight-inch auger that we bored inside of the curbing, and we settled the curbing as we took the sand from the inside with this eight-inch auger until we had a sufficient quantity of water; then we screwed the gas pipe into the top of the filter and lowered it down in the inside of the curbing; then we drew the curbing out and attached the pump to the top of the gas pipe; then we threw the sand that we had taken out back and filled the hole up; that completed the well.

X Q. 39. Why did you use this method in making that well instead of making it in the usual way?

A. Well, it was recommended to us for keeping out the quicksand, out of the tube.

3942 X Q. 40. Did you place this filter as far below the surface of the water-bearing strata as you usually place the screen point to other wells?

A. Yes.

X Q. 41. What was the object in putting back the dirt and filling up the hole?

A. It was in order to stay the pipe, to keep it from swaying.

X Q. 42. Are you familiar with the principles employed in obtaining water from the earth as it is obtained by the use of driven wells?

A. Yes; I believe I understand the principle.

X Q. 43. Is there any difference in the principles employed in obtaining water by means of the well that you described with a filter in it or a well made by driving a tube with a point on it and a screen to the same depth?

A. I think the principle is the same.

Adjourned to 1½ o'clock p. m.

And now, 1½ o'clock p. m., pursuant to adjournment, all the parties are present.

Testimony of A. R. HIGHSMITH continued on cross-examination:

X Q. 44. Have you had any conversation with any one on the subject of your testimony before this examinor since the last adjournment?

A. There has been several questions asked me by different parties.

3943 X Q. 45. Who has conversed with you aside from Col. Lake, and what was said on the subject?

A. The first one I had conversation with was Charles Warlich. He asked me how I thought the suit was going. I told him I could not tell him. I believe N. Becker spoke to me in regard to the suit. He asked me about the same question, how I thought the suit was going. I answered it was hard to tell. The next was S. W. Feustermaker. I think he asked me if they had got through with me yet as a witness; I told him they had not. I think I asked him then if he was a witness on the case; he said he was; I think he said he was summoned in regard to one well that was put down at Independence in 1861.

X Q. 46. What year was it you put in the reservoir for Mrs. Updike?

A. That was in 1870 or 1871; I would not be sure.

X Q. 47. Were all the filtered wells which you made or helped to make made in about the same way as the one you described as having made for Mrs. Updike?

A. They were not all made that way.

X Q. 48. In what did they differ?

A. They differed in size; the largest size was twenty-one inches in diameter; those were called filters for dug wells. We dug a hole three feet in diameter, drew the dirt out with buckets and 3944 windlass until we obtained a sufficient quantity of water; then we filled the hole with sand and gravel above the water line or water mark; then we threw the soil back and filled it within five feet of the surface; then we attached the pump, and the well was completed.

X Q. 49. During the time you were engaged in making wells did you make any by driving a tube in the bottom of open or dug wells?

A. I can't remember of any at present by driving or forcing.

X Q. 50. Did you make any wells during that time in the bottom of open or dug wells? If you have, describe the manner of making them.

A. Well, I put down this ten-inch curb, took the sand from the inside of the curb with an auger, and settled the curb until we had a sufficient quantity of water; then we screwed the gas pipe into the top of the filter; then we lowered the filter in the inside of the curb to the bottom of the well; then we threw the sand that we had taken out back and drew out the curb, attached the pump, and the well was completed.

X Q. 51. About how far below the top line of the water-bearing stratum did this filter set when the well was completed?

A. I think about four feet from the top of the filter to the water line.

3945 X Q. 52. About how many of this kind of wells have you made since the spring of 1871—I mean filtered wells?

A. Well, I should not say that I have put in over ten of that kind.

X Q. 53. About how many driven and other kind- of bored wells in which you forced the tube in the bottom, as you have described, have you made since the spring of 1871? State as nearly as you can.

A. That is pretty hard to get at; I have not kept any record; I-would be safe to say between fifty and one hundred.

X Q. 54. Do you know the defendant in this action?

A. Yes; I know him.

X Q. 55. Have you put in a driven well or any kind of a well for either George Leland or Andrew Thompson during the years you state you put down wells in your direct examination?

A. I never put one down for Leland of any kind; I put one down for Thompson & Bro.; I drove one and dug two or three for Thompson & Bro.; the one I drove for Thompson & Bro. I bored to water and then drove into the water-bearing stratum; it is the same well I testified about before.

X Q. 56. Have you ever obtained a license for any of these parties for whom you have made wells or for yourself to put them in from any person or persons?

3946 A. I have not.

Cross-examination rests.

Redirect:

R. D. Q. 1. Is the principle by which you get water from the earth in a driven well any different than the principle by which you get it from an open dug well, by the use of a pump?

A. I should say not; it is the suction of the pump that draws the water from either.

R. D. Q. 2. Did you ever make a well by driving down an iron rod until it was projected into the water in the earth, then withdrawing the same and inserting into the hole thus made an iron tube, and attaching a pump to the top?

A. No, sir; I think not.

(Signed) A. R. HIGHSMITH.

Subscribed and sworn to by the above-named A. R. Highsmith before me and in my presence this 21st day of April, 1880.

(Signed) I. H. KUHNS,
Notary Public.

3947 S. W. FENSTERMAKER, being produced, cautioned, and sworn, testified as follows:

Q. 1. What is your name, age, place of residence, and occupation?

A. S. W. Feustermaker; my age is fifty-five years; reside in East Waterloo township, Black Hawk county, Iowa; my occupation at present is a carpet weaver.

Q. 2. How long have you resided in Black Hawk county, Iowa?

A. Since 1860.

Q. 3. What has been your business since you came to Iowa?

A. Farmer, the fort part; then I went into the army in 1863; came back in 1866; kept store two years in Jessup, in Buchanan county; then moved to Waterloo, in Black Hawk county, in 1868.

Q. 4. Did you know or see a well that was made by driving a tube into the ground and attaching a pump to it?

A. Yes, sir.

Q. 5. When and where did you see such a well?

A. In 1861, on the west side of the river, at Independence, in Buchanan county, Iowa.

Q. 6. Describe the well; state how it looked.

3948 A. It was drove down into the ground; a pump attached to it; it was an iron pump; there was no hole dug into the ground; it was drove right from the top; I guess they did not stick it down; though I don't know; I did not see it drove; I pumped water out of the pump myself.

Q. 7. What was the appearance above the pipe as to whether a hole had been dug before the pipe was put in?

A. It was not any dug——

Q. 8. How many times did you see this well?

A. Once.

Q. 9. Did you see any one else pump water from it?

A. Yes, sir.

Q. 10. Who and about how many persons?

A. The only one I knew of at the time was John Darr, who went down with me; I suppose there was a couple hundred men around there — folks.

Q. 11. Did you see a large number of persons use that well to get water the day you saw it?

A. Yes, sir.

Q. 12. How was the water as to being abundant?

A. It seemed there was plenty water in it.

Q. 13. What was the quality of the water?

A. Nice and clean.

Q. 14. How long did you remain in that vicinity and see the well used that day?

A. About one hour.

3949 Q. 15. Was it used pretty constantly during that time?

A. Yes, sir.

Direct rests.

Cross-examination:

X Q. 1. Who have you talked with about what — would testify to in this case besides Col. Lake?

A. No one to-day. I talked with Andrew Thompson about that well about a year ago. He spoke to me at one time since, and said I would have to be a witness on that drive pump at Independence yet.

X Q. 2. Were you subpœnaed here to testify?

A. Yes, sir.

X Q. 3. Have you a driven well on which you have not paid the royalty?

A. I have a well, but it wasn't drove.

X Q. 4. Who made it?

A. Smith—the one who lives near the foundry.

X Q. 5. How is it made?

A. It is bored down with an auger; then they put the pipe down into it, and pump attached to it, and pumped the water out.

X Q. 6. Did you see it made?

A. Yes, sir.

X Q. 7. Was the pipe forced down below where they bored to?

3950 A. No, sir.

X Q. 8. What kind of a point had it?

A. The same as all these drive wells have with a screen on it.

X Q. 9. Do you now swear that this point did not go below the water-bearing strata or into it?

A. They bored down into the water until they came on blue clay.

The question was repeated.

A. Yes, sir; it did go into the water-bearing strata and through it.

X Q. 10. Who owned this first well that you say you saw in 1861 in Independence?

A. I don't know.

X Q. 11. Who made it?

A. I can't tell.

X Q. 12. You swear it was driven in, do you?

A. Yes, sir.

X Q. 13. Did you ever see it before the time you have testified to?

A. No, sir.

3951 X Q. 14. Were there parties making it at that time?

A. No, sir.

X Q. 15. Was the well all completed?

A. Yes, sir.

X Q. 16. Did you see it made, and do you know of your own knowledge that this tube was driven right down from the top, or do you merely guess at it?

A. I did not see it made; I know from my own knowledge it was driven right down from the top.

X Q. 17. What was going on at the time you saw this well—that is, what was the occasion of so many persons being present?

A. It was a circus there at that time.

X Q. 18. Was this well a great curiosity at that time?

A. Yes, sir.

X Q. 19. When did you see the next well of that kind, and where?

A. I guess the next one I saw here at Waterloo in 1866.

X Q. 20. What circus was it that was at Independence the day that you saw that well?

A. They called it the Barnum show or circus.

X Q. 21. Did you see any well the next day after that anywhere?

A. No, sir.

X Q. 22. When did you see the next well after that day of any kind?

3952 A. The next day, in Barclay, Black Hawk county.

X Q. 23. How was that well made?

A. That was dug down into the ground.

X Q. 24. What kind of a pump did it have?

A. A wooden pump.

X Q. 25. When did you see the next well after that day with an iron pump in it?

A. I cannot tell.

X Q. 26. Where were you living at the time you saw this first one?

A. In Barclay, Black Hawk county, Iowa.

X Q. 27. Were you ever at a circus at Independence since that day?

A. No, sir.

X Q. 28. Were you ever at a circus before that time at Independence?

A. No, sir.

X Q. 29. How come you to remember so distinctly about that well? Is it because your memory is so good?

A. It was the second year I came into the State of Iowa.

X Q. 30. Can you give any different answer as to how you came to remember this well?

A. No, sir.

3953 X Q. 31. How is it, then, that you remember this particular well and can't remember when you next saw a well with an iron pump to it?

A. Because it was a curiosity to me.

X Q. 32. Can you tell when you saw the first balloon go up?

A. I never saw one go up.

X Q. 33. When did you see the first steam engine?

A. When I was twelve years old.

X Q. 34. What kind of a season was it the year that you saw this well; was it wet or dry?

A. It was dry.

X Q. 35. Did you go to Independence frequently during 1861 and 1862?

A. No, sir.

Cross-examination rests.

(Signed) S. W. FENSTERMAKER.

Subscribed and sworn to by the above-named S. W. Fenstermaker before me and in my presence this 21st day of April, 1880.

[SEAL.] (Signed) I. H. KUHNS,
Notary Public.

3954 MARTIN RUST, being produced and sworn on part of the defendant, testified as follows:

Q. 1. What is your name, age, place of residence, and occupation?

A. Martin Rust; age, thirty-six years; residence, Waterloo, Iowa; occupation, a farmer.

Q. 2. How long have you resided in Iowa?

A. About twenty-eight years.

Q. 3. Did you at any time see or know of a well made by driving an iron tube into the ground and attaching a pump to the top of it?

A. I see a well that they told me was a drive well.

Q. 4. When and where did you see this well?

A. In 1861, at Independence, Iowa.

Q. 5. What time in 1861 was it that you saw it?

A. In July, I think.

Q. 6. Where, in Independence, was the well?

A. About one block west of the bridge, on the south side of the road.

Q. 7. Describe said well.

A. Close to a big tree and close to what used to be occupied as a blacksmith shop. The well was an iron pump attached to an iron pipe; the pipe, they told me, was drove down into the ground, and the grass was not disturbed but very little around it.

3955 Q. 8. Did you pump water from this well?

A. Yes, sir.

Q. 9. Did you see others do so; if so, about how many?

A. I did; a dozen or two.

Q. 10. How many times did you see this well?

A. I saw it several times.

Q. 11. Did you use the pump to pump water each time you saw it?

A. I did not each time.

Q. 12. How was the supply of water as to being abundant in the well?

A. It was abundant; the agent pumped and run quite a stream across the street—what appeared to be the agent.

Q. 13. What was the quality of the water?

A. Pure and fresh.

Q. 14. How long did this well remain there, to your knowledge?

A. About one week.

Q. 15. Did you then know S. W. Fenstermaker?

A. I did.

Q. 16. Did you see him at Independence on any of the days that you saw this well?

A. I did at one time.

3956 Q. 17. Did you see him at or near the well?

A. I did not.

Direct rests.

Cross-examination:

X Q. 1. Which side or in what direction from the big tree was this well?

A. Northeast.

X Q. 2. What kind of a looking man was this agent?

A. A medium-sized man; a light beard, black-colored, darkish hair. I don't know his name.

X Q. 3. State, as near as you can, what he said to you during that interview.

A. He told me how the well was put down and how he got the water and made inquiry as to what the show was as to drive wells up the river. I told him there would be a good show at Littleton; somebody told him it was rock bottom; that he could not do anything; they had to drill.

X Q. 4. Where did you reside at this time?

A. Close to Littleton, in Perry township, Buchanan county, Iowa; ten miles from Independence.

X Q. 5. What business were you engaged in at that time?

—. I was hauling lumber.

X Q. 6. When did you engage in that business?

A. The first load I drawed the first time I seen the well.

X Q. 7. Is that the only data by which you can tell when you engaged in the lumber business?

A. No, sir; it is not.

3957 X Q. 8. Give any other data you have.

A. We had a wide-awake party down there that evening for volunteers for Lee's company.

X Q. 9. How do you fix the date of that party?

A. I went down because I wanted to enlist.

X Q. 10. Did you enlist?

A. Not that day, sir.

X Q. 11. When did you enlist, if at all?

A. I enlisted about ten days afterwards—I cannot tell the date; it was about ten days afterwards—and then got a thirty days' furlough to stay at home.

X Q. 12. Ten days after what?

A. I said about ten days after—after I hauled the first load of lumber; I had ten loads to haul and I hauled one load per day.

X Q. 13. Where did you haul this lumber from?

A. From Independence.

X Q. 14. Where to?

—. Perry township.

X Q. 15. Whose lumber was it and who did you haul it for?

A. It was father's lumber and I hauled it to father.

X Q. 16. What kind of lumber was it?

A. Lumber for a house; it was pine lumber.

X Q. 17. Who did your father obtain it of, what is your father's name, and who built the house?

A. I think it was Wisegar & Co.; my father's name is Joseph Rust; Jacob Frey built the house.

3958 X Q. 18. How do you remember seeing S. W. Fenstermaker; what is it that makes you remember seeing him at that time particularly?

A. I remember seeing him at a show down there.

X Q. 19. What was there connected with — interview with him that impresses your seeing him on that day on your mind particularly?

A. Because he was a deacon of a church and attended shows.

X Q. 20. Was there any building being erected near to where you saw this well?

A. Not to my recollection; there was a little box house built that season close to the blacksmith shop on the west side before I went to the army.

X Q. 21. Did this agent claim to have a patent on the kind of well you saw and did he propose to sell the territory or the right to use or put down wells?

A. He did not; he wanted to put down wells.

X Q. 22. Are you interested in the result of this suit?

A. Not any.

X Q. 23. Have you a driven or bored well upon which the royalty has not been paid?

A. Not that I know of.

X Q. 24. Have you heard considerable discussion within the last year and a half on the driven-well subject?

A. I did.

X Q. 25. Do you know of considerable opposition to the collection of the royalty?

A. I do not.

3959 X Q. 26. Do you know of an organization or do you belong to one having for its object the prevention of the collection of royalties and defending suits brought therefor?

A. I have heard of one in Waterloo; I never attended it and never belonged to it.

X Q. 27. Give the date, as near as you can, that you left Iowa for the army.

A. I think it was in August of 1861.

X Q. 28. What company and regiment did you go in?

A. Company "B," Fourth Iowa Cavalry.

X Q. 29. Where was the company when you first joined it?

A. The company was quartered at Mt. Pleasant, in this State; I entered at Independence.

X Q. 30. Who was captain of the Co.?
A. Capt. Porter at that time.

Cross-examination rests.

Redirect:

Q. 1. Was it the same year that Capt. Lee raised his company that you saw this well?
A. Yes, sir.
(Signed) MARTIN RUST.

Subscribed and sworn to by the above-named Martin Rust before me and in my presence this 21st day of April, 1880.
[SEAL.] (Signed) I. H. KUHNS,
Notary Public.

Adjourned to April 22nd, 1880, at 8½ o'clock a. m.

3960 And now, to wit, April 22nd, 1880—8½ o'clock a. m.—met pursuant to adjournment, all the parties present.

J. E. **Trexler**, being produced, sworn, and examined on the part of the defendant, testified as follows, viz:

Q. 1. Are you the same J. E. Trexler that was examined at Independence, Iowa, in February or March last, on the subject of driven wells?
A. Yes.
Q. 2. In your examination at that time the examiner wrote out that you said that the parties who put in the well you then described tied a point onto the tube before driving it. Is that what you said or intended to say? If not, now state what you did intend to say as to the point on the tube before it was driven.
A. I did not say that the point was tied in or anything of that kind. I noticed that there was a point on the tube, but how it was put on I don't know.
Q. 3. You said something at that time about there being holes in the tube above the point. Will you now state what you did say or intended to say as to your knowledge of the holes in that tube?
3961 A. I don't think that I said that I seen holes in it, but I said that there must be holes in it or else the water could not get in; it was across the street from where I lived, from where I seen it, that the well was put in.
Q. 4. Was this well put in before you moved onto the east side of the river at Independence, Iowa?
A. Yes, sir.

Direct rests.

Cross-examination:

X Q. 1. Then you did not see any holes in this pipe?
A. I don't know that I did; no, sir.
(Signed) J. E. TREXLER.

Subscribed and sworn to by J. E. Trexler before me and in my presence this 22nd day of April, 1880.

[SEAL.] (Signed) J. H. KUHNS,
Notary Public.

3962 THOMAS DOBSON, being produced, sworn, and examined, testified as follows:

Q. 1. What is your name, age, place of residence, and occupation?

A. My name is Thomas Dobson; my residence is East Waterloo township, Black Hawk county, Iowa; I am forty-four years old, and my occupation is farmer.

Q. 2. Are you the same Thomas Dobson that was examined in regard to the driven-well cases in January, 1880?

A. Yes, sir.

Q. 3. Can you now tell what is the date you put down the two wells you then testified to?

A. I put down one in the fall of 1868 and the other in the spring of 1869—I think in May, 1869.

Q. 4. Before you put down those wells had you seen other wells of a similar character put in?

A. Yes, sir; I had seen other wells that were in—I did not see them put in.

Q. 5. When and where did you see the first well of that character that you now remember of?

A. I could not state when—it was some time before that—on the west side of the Cedar river in Waterloo, Iowa, in front of the Sherman House—now called the Central House.

3963 Q. 6. State, as nearly as you can, how long before you had your first well put in it was that you saw this well in front of the Sherman House.

A. I should think it was five or six years; it must have been along in war time, anyway.

Q. 7. What was said at the time about the manner in which this well that you saw in front of the Sherman House was put down?

A. I recollect they said it was put down in a very short time and was driven down into the ground; I went to see it and got a drink of it; it was quite a curiosity.

Q. 8. From the appearance of this well, what would be your opinion as to how the tube was put down?

A. I should think it was put down as they told me; it was driven down into the ground; there was no digging around that I could see; the ground seemed to be all solid around it.

Q. 9. After that time did you see or hear of this kind of wells frequently up to the time that you had yours put in?

A. Yes, sir.

Direct rests.

3964 Cross-examination:

X Q. 1. Are you a defendant in an action brought by the complainants in this suit to recover royalty on a driven well?

A. Yes, sir; I have been sued by them.

X Q. 2. Are you or have you been a member of an organization in this county having for its object the opposing of the collection of royalties on driven wells?

A. Yes, sir.

X Q. 3. You state in your direct examination that you had seen other wells similar to the one you put down prior to the time you put down your wells, as testified to. Now, do you know of your own knowledge anything about how those wells were constructed?

A. I have no real knowledge how they were constructed; I did not see them put down.

X Q. 4. How do you fix the date of the putting down of your wells?

A. I fix the date by the time I bought my place; I bought my place on the 30th of Nov., 1867, and the next fall after that I put down the first well and the next spring I put down the other one.

Cross-examination rests.

3965 Redirect:

Q. 1. Did these wells that you saw resemble in appearance those that you made?

A. What I could see of them looked very much like mine.

(Signed) THOS. DOBSON.

Subscribed and sworn to by the above-named Thomas Dobson before me and in my presence this 22nd day of April, 1880.

[SEAL.] (Signed) I. H. KUHNS,
Notary Public.

3966 George Leland, being produced, sworn, and examined, testified as follows:

Q. 1. Are you the same George Leland that was examined in these driven-well cases in January, 1880, on part of the complainants?

A. I am.

Q. 2. Before the time that you put in your wells, as testified to then, did you ever see or hear of that kind of a well?

A. Yes, sir.

Q. 3. State when and where you saw the first one that you now remember.

A. It is either thirteen or fourteen years ago this fall, at the fair ground at Cedar City, Black Hawk county, Iowa.

Q. 4. State what you saw of that well; describe it fully.

A. The man that put it down was Elijah Balcomb, of Waterloo, Iowa, to see how quick he could put it down. In half an hour from the time he got the material there he had the water. They had a gas pipe with a perforated point, drove it down until they come to water, and attached a pitcher pump.

Q. 5. How deep did they drive it? State as nearly as you can.

3967 A. Well, in that vicinity about from fifteen to eighteen feet we get to water.

A. 6. Did you see the gas pipe before he drove it? If so, state, as nearly as you remember, how long it was.

A. I saw it; I can't remember the length; from fifteen to eighteen feet, I should think.

Q. 7. How long was this well used?

A. Only through the fair; 2 or 3 days.

Q. 8. Did you see or hear of this kind of wells frequently from that time to the time you put in your first well?

A. I did.

Direct rests.

Cross-examination:

X Q. 1. Are you the defendant in this action?

A. I am.

X Q. 2. Are you or have you been a member of an organization in this county whose object it is to prevent or oppose the collection of royalties on driven wells?

A. I am.

X Q. 3. State as near as you can the number of members composing this organization.

A. I have not seen the list for considerable over a year; seventy-five to one hundred, I should think; perhaps more.

3968–3977 X Q. 4. Do you know anything about how the wells were constructed that you say you saw prior to the time that you made your wells, except the one you saw in the fair grounds; I mean, do you know of your own knowledge?

A. Yes, sir.

X Q 5. Explain then, please, briefly what you know of their construction.

A. Because I saw them in every hardware store—the material; it is gas pipe, with a perforated point; there is only one way to make them in this soil, and that is how I know about it.

Cross-examination rests.

Redirect:

R. D. Q. 1. Had you seen any of these wells made besides the one made on the fair grounds before you made yours?

A. I did; I could not state that I saw more than one.

(Signed) GEO. LELAND.

Subscribed and sworn to by the above-named George Leland before me and in my presence this 22nd day of April, 1880.

[SEAL.] (Signed) I. H. KUHNS,
Notary Public.

Defendant now gives notice that he now closes the taking of testimony in this place at this time.

(End.:) W. D. Andrews *et al. vs.* George Leland. Deposition of A. Butterfield *et al.* Filed Oct. 19, 1880. E. R. Mason, clerk.

3978 OFFICE OF IRVING H. PALMER,
CORTLAND VILLAGE, CORTLAND CO., N. Y.

1.30 o'clock p. m.—Convened pursuant to adjournment.

Complainants appear by George L. Waters, Esq., of counsel; defendant appears by Irving H. Palmer, Esq., of counsel.

J. D. F. WOOLSTON, being called for defendant and cautioned and sworn to tell the truth, the whole truth, and nothing but the truth, testified as follows:

3979 Q. 1. What is your name, age, occupation, and place of residence?

A. My name is J. D. F. Woolston; my age is 46 years; I am a farmer and reside in Preble, N. Y.

Q. 2. Are you also a surveyor and a civil engineer?

A. I am a surveyor; not a civil engineer; I studied civil engineering when at school, but never practised it.

Q. 3. What positions of public trust have you held, Mr. Woolston, in the town of Preble, Cortland Co., N. Y.?

A. Justice of the peace and supervisor for two terms.

Q. 4. How long have you resided in the town of Preble?

A. 46 years.

Q. 5. Did you know Wm. E. Tallman in his lifetime, & from 1858 to 1864 was he your neighbor?

A. He was my neighbor for a number of years; commencing, I think, as early as 1858. On reflection, I think it was prior to that.

3980 Q. 6. Do you remember that Wm. E. Tallman obtained water for the stock on his farm in Preble by means of a windmill operating a pump?

A. I do.

Q. 7. Did you also obtain water by a windmill after Mr. Wm. E. Tallman had erected his windmill?

A. My father did. I was living with my father at that time. He owned the premises.

3981 Q. 8. Did you go to the spot where Tallman's windmill was erected and examine the pump operated by it and the machinery by which water was raised before the windmill was erected on your father's premises as you have stated; and, if so, for what purpose did you do so?

A. I went and looked at it—it was before we had a windmill—to investigate it and learn all we could about windmills, because my father wanted to purchase one for the purpose of pumping water.

Q. 9. Did you observe the pump attached to Mr. Tallman's windmill? If so, describe its location and arrangement, and whether it was in the well or outside of it.

A. I did observe the pump; it was down near the bottom of the well. I should think it was a brass or copper pump, the cylinder part of it, and located near the center of the well; it might have been a little north of the center of the well.

3982 Q. 10. Did you observe by what means the water was conducted from the pump, and into what receptacle the same was discharged? If so, please state.

A. It was conducted through a lead pipe into a large cistern or reservoir made of stone and lime, situated a little to the west of the well on a slight rise of ground. I suppose the object was to water two adjacent lots. I think the discharge pipe was about a half-inch lead pipe, inside diameter; I judged from seeing the outside of the pipe.

Q. 11. Was there any other pump used in connection with this well besides the one attached to the windmill?

A. Not to my knowledge when I was there.

Q. 12. Was there a ladder by means of which one could go into and come out of the well? If so, please describe the location and arrangement of the same.

A. There was; it was of cleats nailed on a standard and
3983 stood upright in the well; on reflection, the cleats were fastened to the standard; I do not know whether by nails or screws.

Q. 13. Did the pitman or connecting rod which operated the pump pass through the covering over the well? Please describe the same.

A. I could not say about that; there was not much covering on the well when I there; just some loose plank.

Direct examination closed at 2.30 o'clock p. m.

Cross-examination:

C. Q. 14. Have you ever been sworn as a witness on behalf of the defendant in this case before; if so, when and before what notary?

A. I was sworn about a year ago, and defendant's counsel has told me that it was in this case and before Edward S. More.

3984 C. Q. 15. And since being so sworn have you resided continuouly in Preble?

A. I have.

C. Q. 16. You stated, in answer to question 17, that your father at one time erected a windmill on his premises. Where were these premises located, with reference to the windmill of Wm. E. Tallman?

A. The windmill that we had put up was in our barn-yard, which was about three-quarters of a mile north and east of Mr. Tallman's windmill; it may be a little more or less.

C. Q. 17. When did you erect this windmill in your father's barn-yard?

A. The 18th day of October, 1861.

C. Q. 18. When did you visit the windmill of Wm. E. Tallman to examine its construction, as you have described in your direct examination?

A. Some time prior to the erection of ours. I should judge about in the year 1860.

C. Q. 19. Can you not be more definite as to the time than this?

A. I cannot.

3985 C. Q. 20. Can you tell what season of the year it was?

A. I think it was spring or fall, but I cannot tell which; according to the best of my recollection it was in the spring of 1860.

C. Q. 21. Do you know who then oocupied the farm where the Tallman windmill was?

A. I think Mr. Tallman did, but cannot state positively.

C. Q. 22. Was the windmill then in running order?

A. I think it was.

C. Q. 23. Did you then see it in operation?

A. I think it was not running at the time I was there.

C. Q. 24. Was this the only occasion on which you visited this well.

A. I think not. I have been to see it several times before we erected ours.

C. Q. 25. And did you on each of the occasions make careful observation of its construction?

A. Somewhat.

C. Q. 26. Previously to the time when you went to exam-
3986 ine it for the purpose of observing its construction in order
to get information to enable you to erect the windmill on
your father's premises had your intention ever been especially called
to this Tallman well?

A. I had seen the mill and had heard about it, but I think I had never examined it at the well.

C. Q. 27. Do you know when the Tallman windmill was erected?

A. I do not know just when; no, sir.

C. Q. 28. Was that the first windmill erected in your section of the country to your knowledge?

A. It was.

C. Q. 29. When you examined the construction of the pump in this well, state whether or not you went down into the well; I mean the Tallman well.

A. I did not; my whole examination was from the surface.

C. Q. 30. Was any one present with you at that time?

A. No, sir.

C. Q. 31. What kind of a well was this?

3987 A. It was dug and stoned up.

C. Q. 32. About how deep was it?

A. According to the best of my recollection it was about twelve feet deep down to the water. I did not measure it, except by my eye.

C. Q. 33. Did you measure the depth of the water?

A. I did not.

C. Q. 34. Was the pump all above the surface of the water?

A. Yes, sir; just above the surface of the water.

C. Q. 35. What conducted the water into the pump from the bottom?

A. I do not know.

C. Q. 36. Did you observe anything below the bottom of the cylinder attached to it?

3988 A. I did not.

C. Q. 37. Then you do not know by what means the water was conducted into the cylinder, do you?

A. I do not.

C. Q. 38. Did you observe any iron pipe there—I mean below the cylinder?

A. I did not.

C. Q. 39. Did you observe any pipe there in any place, except the lead pipe you have mentioned?

A. I did not.

C. Q. 40. How far from the Tallman well did you reside?

A. About three-quarters of a mile.

C. Q. 41. Were you well acquainted with Wm. E. Tallman, and did you frequently see him?

A. I was and did.

C. Q. 42. Did you ever talk with him in relation to this windmill and pump?

A. I have; I helped to take the windmill out of the box at the depot when it came there.

C. Q. 43. Can you tell when this was that you thus helped him?

3989 A. Well, I believe that it was in the latter part of June or fore part of July, 1859.

C. Q. 44. Did he then tell you what he was going to do with the windmill?

A. I understood that it was for pumping water at the well I have mentioned in the back lot.

C. Q. 45. Do you know how what are termed driven wells are constructed?

A. Yes; I have seen them and helped drive them.

C. Q. 46. When did you first hear of a driven well being constructed?

A. Well, sir, I could not say definitely, but, according to the best of my rcollection, it was some time during the war of 1861. It seems to me since you asked the question that I heard something about Colonel Green's putting one down on the fair ground, but I am not positive; I might have heard of it before, but, to the best of my recollection, it was about that time.

3990 C. Q. 47. When was the first, if ever, that you heard the claim made that a driven well was constructed by driving an iron pipe into the bottom of this Tallman well where the windmill was?

A. I cannot say definitely, but several years ago Mr. Moses T. Tallman and I had a talk about it; it was before I knew of any litigation here.

C. Q. 48. And was that the first that you ever heard the claim made that a pipe was driven into the bottom of this well?

A. Yes, sir; that is the first that I remember of.

C. Q. 49. Please to state, as nearly as you can, when this conversation was, and was it before or after the death of Wm. E. Tallman?

3991 A. It was several years ago and long before the death of Wm. E. Tallman; it was after the war of the rebellion, I should say.

C Q. 50. Previously to this talk with Moses T. Tallman, that you have mentioned, had you ever heard Wm. E. Tallman say anything about an iron pipe or any pipe being driven into the bottom of that well?

A. I do not remember of hearing him.

C. Q. 51. Up to the time that you had this conversation with Moses T. Tallman, after the close of the war, did you ever see or hear of anything connected with the construction or operation of this Tallman well other than that it was an ordinary dug and stoned well
from which the water was drawn by the windmill and pump
3992 which you have described?

A. Up to the time that I had this talk with Mr. M. T. Tallman I do not now remember that I did.

C. Q. 52. Was this ladder which you have mentioned in the well when you examined the pump as you have stated?

A. Yes, sir.

C. Q. 53. Did you construct or erect the windmill in your barnyard after the same model as the Tallman windmill?

A. No, sir.

C. Q. 54. Where was the pump in your well?

A. Near the bottom.

C. Q. 55. What conducted the water into the cylinder of the pump?

A. I could not say; I do not remember the construction of the pump below the cylinder.

C. Q. 56. At the Tallman well when you examined it as
3993 you have stated was there more than one pump there at that
time?

A. There was not.

C. Q. 57. Will you swear positively that there was not a hand pump there not operated by the windmill?

A. There was none that I saw—none in the well.

C. Q. 58. Was there any pipe in the well except the lead pipe which you have mentioned which conducted the water to the reservoir and run upwards from the water to the surface of the ground?

A. There was not.

C. Q. 59. Did you ever visit the well at a time when there was a pump at the well aside from the one operated by the windmill?

A. Never, in my remembrance.

C. Q. 60. Will you swear that the pump operated by the windmill was not at one time operated above the covering of the well?

A. I will not, sir. I do not know what was done when I was not there.

3994 C. Q. 61. On how many occasions will you swear positively
that you visited this Tallman well during the time that the
windmill was in working order?

A. I could not give any specified number. I visited it several times.

C. Q. 62. About how many times?

A. I could not give any definite number. I visited it a few times.

Cross-examination closed at 4.20 o'clock p. m.

Redirect examination:

R. D. Q. 63. In your answer to cross-question 23 you say the windmill was not in operation at the time you viewed it. Was there sufficient wind at that time to move it?

A. I think not.

R. D. Q. 64. In your answer to cross-question 31 you say the well was dug and stoned up. Do you mean by that anything more than
that was all that appeared or was observable?
3995 A. That was all that I observed, as far as the construction
of the well was concerned.

R. D. Q. 65. May there not have been an iron pipe, perforated at the lower end so as to admit water, driven into the bottom of the dug well so as to form a driven well within the dug well, to which the pump operated by the windmill was attached?

A. There might have been; I could not say how the pump was constructed below the cylinder, but suppose there must have been some kind of a pipe there.

R. D. Q. 66. In your answer to cross-question 32 you estimate the distance from the surface of the ground to the water in the well at
about twelve feet. Was the occasion mentioned in that an-
3996 swer in the spring of 1860 and the same occasion mentioned
in cross-question 20?

A. The time referred to was when I gave the depth of the well.

R. D. Q. 67. Did Wm. E. Tallman, prior to his death, say to you in substance that this well became dry; that he drove a pipe in the bottom of it and attached a pump, and did he ask you to look up the data on the freight books of the S., B. & N. Y. R. R. Co. as to a bundle of gas pipe?

A. He did tell me the well became dry; he told me he
3997 drove a pipe in the bottom of the well and attached a pump,
and he asked me to look up the data on the freight books concerning a bundle of gas pipe and as to when the windmill arrived. On reflection, I do not remember that he asked me to look up the data concerning the gas pipe, or that he told me that he attached a pump to the pipe in the bottom of the well.

The witness here states that he does not like the way in which the question is asked, and requests that the different questions therein be put separately.

R. D. Q. 68. Did Wm. E. Tallman, prior to his death, say to you
in substance that this well became dry?
3998 A. He did.

R. D. Q. 69. What else did he state in that conversation?

A. He stated that he drove a piece of gas pipe in the bottom of the well, and that he wanted I should look up the dates on the freight books in the depot at Preble to see if I dould learn when the windmill arrived and write him. He was in a hurry, and was just going to the depot to take the train.

R. D. Q. 70. Did you, in pursuance of his request, examine the freight books at the depot and ascertain the date?

A. I ascertained the date that there was a box came that I supposed contained the windmill.

R. D. Q. 71. Did you write him what you had ascertained from the freight books?

A. I did.

Redirect examination closed at 5.25 o'clock p. m.

3999 Recross-examination:

R. C. Q. 72. When did this conversation which you mention in your answer to R. D. Q. 67 occur?

A. In the fall before Mr. Wm. E. Tallman died.

R. C. Q. 73. Was it after the litigation over the driven-well patent had begun?

A. I am not positive, but I think it was.

R. C. Q. 74. Was that the first time that Wm. E. Tallman ever made a claim or stated to you that he had driven a pipe in the bottom of this well?

A. That was the first time that I now remember of.

R. C. Q. 75. That was subsequent, was it not, to the time when Moses T. Tallman made a claim that the pipe was driven in the bottom of this well, as you have testified on your cross-examination?

A. It was.

4000 R. C. Q. 76. Will you swear positively that on that occasion, when Wm. E. Tallman was in a hurry to take the train, that he stated to you that he had driven a pipe in the bottom of that well?

A. He did.

R. C. Q. 77. Give that conversation just as it occurred as nearly as you are able, using his language in the first person.

A. I cannot give it just as it occurred.

R. C. Q. 78. Question repeated.

A. The substance of the conversation was that his well became dry; that he drove a piece of gas pipe in the bottom of the well, and he requested me to examine the freight books to see if I could ascertain when the windmill arrived. I cannot repeat the exact language of the conversation.

R. C. Q. 79. You say you wrote to Mr. Wm. E. Tallman; did he reply by letter?

A. I do not remember.

R. C. Q. 80. About how long a time did this conversation take?

A. I do not think it exceeded ten minutes; perhaps not over five; it was very short.

R. C. Q. 81. To whom did you first relate this conversation?

4001 & 4002 A. I do not now remember.

Recross-examination closed at 5.45 o'clock p. m.

Examination of this witness closed.

(Signed) J. D. F. WOOLSTON.

Subscribed and sworn before me this 6th day of April, 1881.
[L. S.] (Signed) M. STANLEY BIERCE,
Notary Public.

4003 PERRY S. HAYNES, being called for the defendant and cautioned and sworn to tell the truth, the whole truth, and nothing but the truth, testified as follows:

Q. 1. What is your name, age, occupation, and place of residence?

A. My name is Perry S. Haynes; aged 34 years; my occupation is farming, and my place of residence is Preble, Cortland Co., N. Y. 4004

Q. 2. How long have you resided in Preble?

A. 24 years.

Q. 3. Do you know Thomas J. Getman?

A. I do.

Q. 4. For how long have you known him?

A. For 15 years or more.

Q. 5. How frequently have you met him during the last three years?

A. Quite frequently.

Q. 6. Have you heard him speak of the Tallman, well at which a windmill was erected; if so, how frequently have you heard him speak of it?

A. I have heard him speak of it, but how frequently I am unable to state.

Q. 7. Have you heard him say that he knew enough to defeat or overthrow Green's well patent or send it to hell or the devil, if he had a mind to tell it, or anything of that import?

4005 A. I have.

Q. 8. Have you heard Thomas J. Getman state that he had received twenty dollars, or about twenty dollars, from the complainants, and that he had not been sworn yet, or language to that effect?

A. I have.

Q. 9. Did you at one time hear Thomas J. Getman say that the pipe used in the construction of the well operated by the windmill was driven in the bottom of the dug well and that he helped drive it, or that in substance or effect?

A. I have heard him say that he helped drive the pipe in the Wm. E. Tallman well.

Direct examination closed at 2.30 o'clock p. m.

Cross-examination:

C. Q. 10. Where in the town of Preble do you live?

4006 A. In the western part of the town, on lot 76.

C. Q. 11. On what road?

A. On the west road, leading from Preble to Bennett Hollow.

C. Q. 12. Which side of the road?

A. West side of the road.

C. Q. 13. Who are your nearest neighbors on the north?

A. Cornelieus Vandenburgh, on the same side of the road.

C. Q. 14. Who are your nearest neighbors on the south?

A. Corwin Cummings, on the east side of the road, on the corner leading to Preble.

C. Q. 15. How far do you live from the hotel in Preble?

A. I could not tell.

C. Q. 16. About how far?

A. About a mile and a quarter or a little more.

C. Q. 17. Do you know where Thomas J. Getman lives?

A. I do.

C. Q. 18. Where does he live?

A. He lives in the town of Preble.

4007 C. Q. 19. Where in the town of Preble?

A. In the central part.

C. Q. 20. Is that as near as you can tell where he lives?

A. He lives near the mills.

C. Q. 21. Is that as near as you can tell where he lives?

A. I should think that was near enough.

C. Q. 22. Question repeated?

A. I could tell nearer by looking at the map of the town.

C. Q. 23. Is that as near as you can tell without looking at the map?

A. I should say that he lived on lot 87, as near as I can judge from memory of the location of his house.

C. Q. 24. Have you now described as nearly as you can where Thomas J. Getman lives?

A. I could tell the road and the surroundings of his place so that it would be a better guide for a stranger than the description before.

C. Q. 25. Please to state where Thomas J. Getman lives.

4008 A. In the town of Preble.

C. Q. 26. Is that as near as you can tell where he lives? If not, please to state definitely where he lives, so that I may know the location of his house; or if you do not know where he lives please to be frank enough to say so.

A. I do know where he lives; it is the first house north of Elijah Stanton's mill-yard, in the town of Preble, on the west side of the road known as the old plank road.

C. Q. 27. How far does he live from your house?

A. Three miles, or a little more, by the road.

C. Q. 28. You live northwest of Preble village and Getman lives southeast. Is not this so?

A. It is.

C. Q. 29. Do you know where the well which you have mentioned on your direct examination as the Tallman well was located?

4009 A. I do.

C. Q. 30. Where?

A. It is located on the property which, I suppose, is now owned by the Hiscock heirs; they occupy it anyway. It was formerly owned by Wm. E. Tallman. I should say the well was about three-quarters of a mile southerly from Preble village. The distances I have given are all guess-work with me. The Hiscocks traded the property with Mr. Stanton, and who the devil it belongs to now I do not know.

4010 C. Q. 31. Please to finish the answer you were making when interrupted by defendant's counsel.

4011 A. I should guess the well was fifty or sixty rods east from the main road; I have never measured it or seen it measured.

C. Q. 32. Are you married or single, and if you are how long have you been married?

A. I am; married 13 years the 12th day of last November.

C. Q. 33. Do you reside upon a farm now?

A. I do.

C. Q. 34. Are you the owner of it?

A. I am not.

C. Q. 35. Who is?

A. My father.

C. Q. 36. Do you live with your father?

A. I do.

C. Q. 37. Are you a freeholder?

A. I am not.

4012 C. Q. 38. Have you ever been?

A. I have not.

C. Q. 39. How long have you lived with your father?

A. Between 34 and 35 years.

C. Q. 40. Do you mean ever since you was born, and that you never lived away from him?

A. There has been times, a month at a time, that he has been away; but my home has been at the old homestead.

C. Q. 41. Where have you spent the most of your time since you became of age?

A. In the town of Preble?

C. Q. 42. At what point in the town of Preble when not at home?

A. About three years I was "sparking."

C. Q. 43. All the time? If so, where?

A. Not all the while.

C. Q. 44. Question 42 repeated.

A. At different places.

C. Q. 45. Please name the principal places.

A. I have been in the village at the hotel and stores and
4013 at private houses, also, through the town.

C. Q. 46. How much of your time at the hotel and how much at the stores?

A. I could not tell.

C. Q. 47. Tell as nearly as you can.

A. Well, there was a portion of my time at the hotel and a portion at the stores and a portion at private houses and other places.

C. Q. 48. Your answer is very indefinite. Please to answer question 46 more definitely.

A. It is a question that I am unable to answer.

C. Q. 49. Can you not give any estimate on the time?

A. My time at such places never has been limited by any one.

C. Q. 50. Do you mean by your last answer that you have spent an unlimited amount of time at these places?

A. I do not.

C. Q. 51. What do you mean, then?

A. I mean exactly what my answer was.

4014 C. Q. 52. Then you did not answer my question and I repeat it. Can you not give any estimate of the time spent by you at the hotel and at the stores? I do not ask for the exact time, but for your best judgment; please to answer it without evasion.

A. When I frequented such places I spent from ten seconds to five hours, as my business or inclination demanded.

C. Q. 53. Have you ever had any business in the hotel? I mean business connected with the running of the hotel.

A. I do not know as a day's work which the landlord employed me to do would be business connected with the running of the hotel.

C. Q. 54. Do you mean that you have been employed to work by the day at the hotel; and, if so, for how long a time have you been thus employed?

A. I have been employed by the day—a single day at a time—by different landlords.

C. Q. 55. Doing what?

4015 A. Drawing and packing ice and filling ice-houses.

C. Q. 56. And is that the only capacity in which you have been employed at the hotel by the different landlords?

A. I do not remember of doing any other work for a landlord in Preble or elsewhere.

C. Q. 57. What has been your business at the hotel in Preble, aside from the times when you have been filling ice-houses?

A. I merely stopped there to pass away the time.

C. Q. 58. Is it not a fact that for the last 14 years you have spent most of your waking hours at the hotels, thus passing away your time?

A. No, sir.

C. Q. 59. Please to give an estimate, as nearly as you are able, of the time you have thus passed away at the hotel.

A. I could not accurately make any such estimate, as there has
been month- at a time when I have not even seen the hotel,
4016 and an estimate for fourteen or fifteen years of a man's life I
think is more than any man can do.

C. Q. 60. What has been your business at the stores which you say you have frequented?

A. I have been to buy groceries and supplies that were sent for by the family.

C. Q. 61. And is that all?

A. For the general gossip and visits, as you might say, which country stores have to contend with.

C. Q. 62. You say that aside from the time when you were filling the ice-houses at the hotel you stopped there to pass away the time. Please to state briefly what means you employed to pass away the time.

A. Sitting around the stove, smoking a cigar, and occasionally taking a glass of beer or sometimes something stronger.

C. Q. 63. And on such occasions would you engage in "the general gossip" the same as you did at the stores?

A. It has not been shown that there was any gossip at the hotel.

4017 C. Q. 64. Your remark is quite truthful, but it does not answer my question. I therefore repeat question 63.

A. I answer the same as before.

C. Q. 65. Do you refuse to answer my question any differently than you have?

A. Until complainants' counsel shall show that there was gossip at the hotel. I shall insist upon the aforesaid answer as being sufficient.

C. Q. 66. Question 63 repeated.

A. I answer the same as before.

C. Q. 67. Do you refuse to answer differently? Please answer yes or no.

A. No.

C. Q. 68. Please to answer, then.

Question 63 repeated.

A. I would.

C. Q. 69. Why did you so hesitate to answer the question?

A. I did not consider that the counsel had got it in proper form to be answered.

4018 C. Q. 70. For what reason?

A. He had failed to show that any gossip had existed in the hotel.

C. Q. 71. I will endeavor now to show by you the missing proof which has troubled you. Is it not true that those who frequented the hotels engaged in general gossip?

A. Well, it is.

C. Q. 72. And was not this general gossip enlivened by the gossippers "occasionally taking a glass of beer or sometimes something stronger," as you have testified, and thus becoming intoxicated or partially so?

A. I do not know that it was.

C. Q. 73. Do you know whether it was or not?

A. I could not tell whether it was or not.

4019 C. Q. 74. Did the gossippers at times become wholly or partly intoxicated by partaking of the beer or "something stronger," as you have testified that they would?

A. Some of them that frequented the hotel would take a glass of ale or something stronger, if asked, and some of them would not.

C. Q. 75. You have not answered my question. Please to do so.

A. As all of the gossippers were not beer-takers or "something stronger," I am not able to answer your question.

C. Q. 76. Did such of the gossippers as were "beer-takers" or "something stronger" become wholly or partly intoxicated at times?

A. Not knowing how far a man has got to be before you would call him intoxicated, I am unable to answer your question. I never have seen any but what were able to walk away and attend to their own affairs.

C. Q. 77. I will permit you to be your own judge, not doubting
your ability, as to " how far a man has got to be " before he
4020 is intoxicated, and again repeat question 76.

A. Being a man who does sometimes indulge in a glass of beer or "something stronger," I consider myself incompetent to answer the question as to when a man is intoxicated.

C. Q. 78. Do you mean by your last answer that you " indulge " to that extent that you cannot tell whether a man is drunk or sober?

A. I mean by my last answer that I cannot tell when a man passes from sobriety to intoxication.

C. Q. 79. Mr. Haynes, you seem to try to evade my questions. I now repeat question 76 and ask of you to answer the question without evasion.

Question 76 repeated.

A. I deny the charge of evasion and claim that I have answered the question as it has been asked.

C. Q. 80. In your first answer to question 76 you stated, " I am
unable to answer your question." In your next answer you said, " I
consider myself incompetent to answer the question." In
4021 your next answer you stated in substance that you could not
tell when a man passed from sobriety to intoxication. You
now claim that you have answered my question. I have repeated
the substance of your answers to show that you have not fairly
answered my question, and I again repeat question 76.

A. I claim to answer as before that I was not put on the stand to answer when a man passed from sobriety to intoxication.

4022 C. Q. 81. Question 76 repeated.

A. I shall have to answer the question as I did before. I am a " beer-taker " and am incapable of discriminating between sobriety and intoxication.

C. Q. 82. Is that the best that you can answer that question?

A. I might answer it differently if the question was put differently.

C. Q. 83. Do you not understand the question?

A. I have thought that I did.

C. Q. 84. I desire, Mr. Haynes, to treat you entirely fair, but it seems to me that you have not answered my question and that you intentionally evade it, but that there may be no doubt but what you understand it I will, at your suggestion, put the question " differently." You have testified that you in company with others used to congregate at the hotel and engage " in general gossip " and in " occasionally taking beer or something stronger." Now, I ask of you did such of the gossippers as were " beer-takers or something stronger " become wholly or partially intoxicated?

4023 A. I deny the charge of evasion and will answer the ques-
tion that some of the gossippers that frequented the hotel
have got what I would consider too much.

C. Q. 85. And do you include your own name among those mentioned in your last answer?

A. I never saw a man yet that in his own eyes was intoxicated or drunk. I do not include my own name among the number mentioned in my last answer.

C. Q. 86. We are now about to adjourn. Will you please to refrain from talking with the defendant's counsel or with his sympathizer and adviser, John W. Suggett, Esq., as to any of the matters which you have testified to or as to any matters connected with Mr. Getman or the Tallman well until you are again present for further cross-examination?

A. The witness is ready to go on with his examination.

C. Q. 87. Question 86 repeated.

4024 A. I am ready to proceed with the examination. I have not been sworn not to hold any consultation with any man.

C. Q. 88. Question 86 repeated. Please to answer whether you will or will not refrain, as requested, and do not evade my question further.

A. If this is customary I will acquiesce in the request of complainants' counsel.

C. Q. 89. Please to answer the question without attaching any condition as to whether you will or will not refrain, as requested in question 86.

A. I will comply with the counsel's request.

Proceedings herein adjourned, at 6.05 o'clock p. m., until Saturday, April 9th, 1881, at 9 o'clock a. m., at this place.

SATURDAY, *April 9th*, 1881—9 o'clock a. m.

Convened pursuant to adjournment.

4025 Present: As before.

Cross-examination of the witness, PERRY S. HAYNES, resumed:

C. Q. 90. You have testified, on your direct examination, to certain statements which you claim to have heard Thomas J. Getman make. Were such statements made in conversation between you and him?

A. They were.

C. Q. 91. Were all of the statements which you have related on your direct made at one time?

A. They were not.

C. Q. 92. At how many times?

A. I cannot tell how many statements I have made on my direct.

C. Q. 93. Question 92 repeated.

A. Two or three different conversations, I should think, and some of the statements I have heard him make more than once.

4026 C. Q. 94. When was the first conversation in regard to it?

A. I could not tell how long ago.

C. Q. 95. About how long ago?

A. About the time the driven-well question first came up.

C. Q. 96. Do you mean about the time when Colonel Green first invented the well, in 1861?

A. I do not.

C. Q. 97. When do you mean, then?

A. It was at the time that some of them were being sued who had refused to pay royalty; the first ones that I ever heard were sued.

C. Q. 98. Please state the time as definitely as you can.

A. It was two or three years ago this month that I remember of having a conversation with Thomas J. Getman.

4027 C. Q. 97. Was that the first conversation that you had with with Mr. Getman with reference to the matters to which you have here testified?

A. I could not say whether it was or not.

C. Q. 100. Was it the first that you remember?

A. It was.

C. Q. 101. Where did it occur?

A. We were going fishing and we were on the road with a wagon. He was riding with me.

C. Q. 102. Where from and where to?

A. We had started from his house and were going up above the swamp, wading in the creek, in the spring of the year, for suckers.

C. Q. 103. How far did you go with a wagon?

A. About two miles and a half from his house.

C. Q. 104. Which conversation occurred then?

A. The one in which he said that he and Tallman knew enough about the drove well to defeat the Green patent, or that in substance, and that he helped drive the pipe.

4028 C. Q. 105. How did the conversation come up? What was first said?

A. I could not tell.

C. Q. 106. Give the first that you remember.

A. I do not know that I remember anything particular about the conversation, only the statements that he made.

C. Q. 107. Give the exact words of his statements.

A. I cannot give the exact words.

C. Q. 108. Give them as nearly as you can, putting yourself in his place and using his language.

A. I do not know that I could answer the question any nearer than I have already.

C. Q. 109. Why not?

A. I have used the words as near as I could.

C. Q. 110. Is it true that your memory is a little at fault as to the words of the conversation?

A. I could not use the exact words that he used.

C. Q. 111. Why?

A. Well, it would — hard for any man to repeat a sentence that another man has repeated; it is for me, I know.

4029 C. Q. 112. Do you remember the exact words?

A. I do not.

C. Q. 113. Do you remember all that was said on the subject?

A. No.

C. Q. 114. Then there is a portion of the conversation at that time which you have not given, is there?

A. There is.

C. Q. 115. And what that portion was or how it modified the statements that you have made you cannot tell, can you?

A. I can tell what some of the conversation was about, but cannot repeat his words.

C. Q. 116. You have stated that you have given all of this conversation that you remember, and that you cannot remember all that was said on the subject. I now repeat to you question 115, and ask of you to reply yes or no.

Question 115 repeated.

A. I did not swear that there was any portion of the conversation concerning the well that I did not remember; the conversation was not all in regard to the well. 4030

C. Q. 117. Did you not swear, in answer to question 113, that you did not remember all that was said on the subject of the well?

A. I did not understand the question, No. 113, aright. I thought that you meant the whole conversation which we had in riding about two miles and a half.

C. Q. 118. Now, let us have no misunderstanding. Do you remember all the conversation which you had with Mr. Getman at that time on the subject of the Tallman well? Please answer yes or no.

A. No; I do not think I do.

C. Q. 119. Then you think, do you, that there is a portion of the conversation with Mr. Getman at that time on the subject of the Tallman well that you have not given and cannot give?

A. I can give more.

C. Q. 120. Can you give it all? Please answer yes or no.

4031 A. I do not think I can.

C. Q. 121. Can you tell how that portion which you cannot give modified or affected the conversation which you have given? Please answer yes or no.

A. No.

C. Q. 122. Please commence at the beginning of the conversation on that subject and give all that you remember that was said by either you or him on the subject of the Tallman well.

A. I do not know that I can give it as it was conversed at that time, but I will give the substance of the conversation, as near as I can. I spoke about some one being sued—who it was I forget—and Getman said that he thought it was a humbug or a damned humbug, or to that effect, and that he and Tallman knew enough to kill the Green patent, or to that effect, and then he spoke about his having helped drive the pipe, and he went on then and gave a description of this well, which I will give, as near as I can. This 4032 well where the pipe was drove was first dug in the spring of the year and stoned up with the intention of taking it up towards fall and digging it deeper, which was done, and then that the water in the well was not sufficient for the stock, and which he afterwards got — this pipe which he had put down still deeper. I asked the question if this pipe furnished all the water that was

needed, and he said it did. He told who fixed the pipe—George Way—and he told where he lived himself at the time, but I have forgotten where it was, and that he worked for Tallman by the month and who else worked there by the month—one of the Moore boys, I think. That was in 1859, the last year that Wm. E. Tallman farmed it in the town of Preble; that Hezekiah Klock took the place next year. I am not trying to give his words, but am giving
4033 the substance of the conversation, as near as I can. I do not know that I could tell anything more.

C. Q. 123. You say that you "spoke about some one being sued." Do you mean that you spoke about some one being sued for infringement of the Green patent on the driven well?

A. For refusing to pay the royalty on the Green patent.

C. Q. 124. Was it some resident of the town of Preble?

A. I do not remember whether it was or not.

C. Q. 125. Was it some one you knew?

A. It was at the time, but I have forgotten who it was or where he lived.

C. Q. 126. You say he said "that he and Tallman knew enough to kill the Green patent, or to that effect." Did he say what part he knew and what part Tallman knew? Please answer yes or no.

A. Yes.

C. Q. 127. What part did he say he knew?

A. He said he knew all about it.

C. Q. 128. What part did he say Tallman knew?

4034 A. I do not think that he said Tallman knew any designated part.

C. Q. 129. Did he tell you how he drove the pipe?

A. I do not think he did.

C. Q. 130. Did he tell you how it was driven?

A. Only that it was driven in the old well—that is all.

C. Q. 131. Was that all he said about the pipe being driven—"that it was driven in the old well?"

A. That and that he helped drive it.

C. Q. 132. Were these his words: "The pipe was driven in the old well and I helped drive it?"

A. That is the substance as near as I can quote his words.

C. Q. 133. And is that all he said about the pipe?

A. I do not remember of his saying anything more.

C. Q. 134. You say that he told you that the well was put down in the spring of the year and stoned up "with the intention of taking it up towards fall." Is this so?

A. It is.

4035 C. Q. 135. And did he say that it was the intention in the spring to drive the pipe in the fall?

A. He did not.

C. Q. 136. Did he say that the pipe was put in at the time when the well was dug deeper in the fall?

A. He did not.

C. Q. 137. How long after it was dug deeper, did he say, before it was put in?

A. He did not say how long.

C. Q. 138. Did he say when the pipe was put in?

A. He said the same fall.

C. Q. 139. Did he tell you what the pipe was attached to?

A. He told what drew the water attached to the windmill.

C. Q. 140. Question repeated.

A. I think he did.

C. Q. 141. What did he say it was attached to?

A. To the windmill.

C. Q. 142. Did he say how it was attached to the windmill?

A. I do not think he did.

C. Q. 143. Did he tell you how long it was? I mean the pipe?

A. I do not think he did.

4036 C. Q. 144. Did he tell you how many feet it was driven into the earth?

A. I think not.

C. Q. 155. Did he tell you where the pipe was got?

A. I think he did.

C. Q. 156. Where?

A. I am not sure, but I think he said that Tallman sent to Syracuse.

C. Q. 157. Did he tell you what kind of a pump pumped the water?

A. I think not.

C. Q. 158. He told you that the windmill was over the well, did he not?

A. I do not know that he said that.

C. Q. 159. Where did you understand from his conversation that the windmill was?

A. I do not know that there was anything in the conversation about the situation of the windmill any more than that they drawed water from the well by wind—a windmill.

C. Q. 160. You did not understand from that conversation, did you, anything about how far the pipe was driven into the earth?

A. I did not.

4037 C. Q. 161. Then, from that conversation, you cannot say, can you, that Mr. Getman said anything that would contradict the statement that the pipe was only driven into the earth far enough to steady it? Please answer yes or no.

A. No.

C. Q. 162. Question 86 repeated.

A. I will.

12 O'CLOCK M.

Proceedings adjourned until 1.30 o'clock p. m., at this place.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

By mutual consent of counsel present, proceedings are adjourned until Monday, April 11th, 1881, at 10 o'clock a. m., at this place.

4038 MONDAY, *April* 11*th*, 1881—10 o'clock a. m.

Convened pursuant to adjournment.

Present: George L. Waters, Esq., for complainants; Herbert Huntington, Esq., for defendant.

Defendant's counsel states he appears in the place and stead of Irving H. Palmer, Esq., and asks that the proceedings herein be held open for the arrival of Mr. Palmer by the 10.15 a. m. train.

Proceedings held open.

10.45 O'CLOCK A. M.

Present: George L. Waters, Esq., for complainants; Irving H. Palmer, Esq., for defendant.

Cross-examination of the witness, PERRY S. HAYNES, resumed:

4039 C. Q. 163. When was the next conversation which you had with Thomas J. Getman relative to the matters to which you have here testified on your direct examination?

A. I could not tell.

C. Q. 164. Tell as nearly as you can.

A. It was after the conversation which we had while going a fishing, but how long after I could not tell.

C. Q. 165. Cannot you fix the time any more definitely than that?

A. Not as to the next conversation.

C. Q. 166. Was it soon after the other?

A. There had not a great deal of time elapsed; a few weeks perhaps.

C. Q. 167. Where was it?

A. I do not remember.

C. Q. 168. Who was present?

A. I could not say whether there was any one present or not.

C. Q. 169. What season of the year was it?

A. During the next summer after the first conversation.

C. Q. 170. Can you remember what the conversation was?

A. I do not.

4040 C. Q. 171. Do you mean by that that all you remember is that you had some talk about the Tallman well, but what it was you cannot tell?

A. I do.

C. Q. 172. When was the next conversation that you had with him relative to these matters?

A. I have heard him speak of the well at different times, but as to fixing the times and the dates I am unable to do so, up to a conversation which we had this last winter.

C. Q. 173. And can you give the conversation that occurred at any time except the one which you have given when you went fishing and the one which you mention as having taken place last winter in your last answer?

A. I do not think I could.

C. Q. 174. If you cannot give any other conversation than these two I will pass to the one which occurred last winter and
4041 ask you when that conversation took place.

A. It was after the election in November, last fall, and before the first of January, 1881.

C. Q. 175. Where was it?

A. In Preble village.

C. Q. 176. Where in Preble village?

A. On the hotel premises.

C. Q. 177. Where on the hotel premises?

A. There was some talk in the hotel bar-room, and more outside, between the hotel and the hotel shed.

C. Q. 178. What were you doing there at the time?

A. I had no particular business.

C. Q. 179. Was it on one of those occasions that you have mentioned when you were there as one of a group of "gossippers and beer takers and something stronger?"

A. I could not say as I had participated in gossip or beer taking that day.

C. Q. 180. How about "something stronger?"

A. I should make the same answer to that.

4042 C. Q. 181. You say that you cannot say as you had participated that day in gossip, beer, &c. Can you say that you had not thus participated?

A. I cannot say whether I had or had not.

C. Q. 182. Were you sober or otherwise?

A. To the best of my ability, I was sober.

C. Q. 183. And do you make the last answer in view of the statement which you have already made, that you never saw a man accustomed to drinking intoxicating liquors that could see he had himself taken too much?

4043 Question 183 withdrawn.

C. Q. 184. Do you make your last answer in view of the statement which you have already made in answer to C. Q. 85, that you "never saw a man yet that in his own eyes was intoxicated or drunk?" Please answer yes or no.

A. No.

C. Q. 185. Please, then, to answer C. Q. 182, in view of the answer to C. Q. 85, which I will here read to you.

Question 184 repeated.

A. I think I was sober, and I was not accused by any one 4044 of being intoxicated; I do not remember of a taking a single drink of beer or "anything stronger" that day.

C. Q. 186. Who was present and heard the conversation between you and Getman?

A. I do not know that there was any one present to hear the whole of it.

C. Q. 187. Was there any one present to hear any part of it; and, if so, which part—that which took place in the hotel or that which took place between the hotel and the barn?

A. There was at that part which took place between the hotel and the barn.

C. Q. 188. No one was present at that in the hotel; is this so?

A. There might have been and might not. I could not
4045 say as to that. I do not remember whether there was or not.

C. Q. 189. How did the conversation arise in the hotel?

A. I could not tell exactly what started the conversation.

C. Q. 190. What is the first of the conversation that you remember?

A. I think that it was spoken of as being a big thing by some one—I do not know who—and that there was lots of money being spent over it. I mean the driven-well suit.

C. Q. 191. What is the next thing that you remember, and who said it? I mean in the hotel.

A. I think I spoke to Mr. Getman about his being a witness. He said that both sides wanted to swear him, and that either party did not dare put him on the stand, and that he had received about twenty dollars and had not been sworn. I do not remember of anything more being said in the hotel.

C. Q. 192. Did he say from whom he received the twenty dollars?

4046 A. I do think he did at that time in the house.

C. Q. 193. What next was done?

A. I think both he and I started to go home.

C. Q. 194. Where did you go?

A. We started and went out of the front door of the hotel. At the front door I met my father, J. D. Haynes. We all moved towards the shed together after our horse or team or whatever we had. On the way my father spoke something to him about his being a witness on the driven-well suit, and he repeated the substance of the hotel conversation with me.

C. Q. 195. Did Getman say anything further?

A. He told there which side he had received the money from.

C. Q. 196. What did he say?

A. The question was put, which side was he a witness on, and he said on the Andrews side, I think it was, or on the Green
4047 side. I would not be certain which; and that they had paid him about twenty dollars and he had not been sworn yet.

C. Q. 197. He did not claim, did he, that they had paid him any money in excess of regular fees for witnesses?

A. I do not think that he did.

C. Q. 198. C. Q. 86 repeated.

A. Yes.

12 o'clock p. m.—Proceedings adjourned until 1.30 o'clock p. m., at this place.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.
Present: As before.

Cross-examination of PERRY S. HAYNES resumed:

4048 C. Q. 199. Did Mr. Getman say whether or not he had received any money from the defendants in the driven well cases?

A. He did not.

C. Q. 200. Have you now given on your cross-examination all that you can remember ever to have heard Mr. Getman say in regard to the Tallman well or in regard to having received any money from the complainants in this case? If not, please to give any conversation in regard to those matters which you have not already given.

A. I think I have given all of the conversation that I can remember.

C. Q. 201. To whom did you first repeat these conversations?

A. I could not tell.

C. Q. 202. Do you know how it came to the knowledge of the defendants that you had heard these statements by Mr. Getman?

A. I do not.

4049 C. Q. 203. Did you ever inform any one before you were subpœnaed that you had heard these statements?

A. I have.

C. Q. 204. Who?

A. Well, different ones; I have talked on the subject at home.

C. Q. 205. Who?

A. My family—my wife and children; my father and mother were present; there might or might not have been some neighbor present; I have mentioned it in the hotel; who was present I am unable to state; I have spoken with David O. Crofoot, Moses T. Tallman, Dewitt C. Callen, Richard Egbertson, Calvin H. Haynes; that is all that I remember so that I could call their names.

C. Q. 206. How many interviews have you had with Irving H. Palmer, Esq., upon the subject before you were put upon the stand?

A. One.

C. Q. 207. How many with John W. Suggett, Esq.?

A. Not any.

C. Q. 208. How many with John W. Suggett since you were put upon the stand?

A. Not any.

4050 Cross-examination closed, 2.05 o'clock p. m.

Redirect examination:

R. D. Q. 209. Did Mr. Getman say in any of the conversations you have had with him that the pipe which he assisted to drive in the well in question was driven only far enough into the earth to steady it, or did he make any statement of that import or from which you derived that idea?

A. He never did.

Redirect examination closed, 2.10 o'clock, p. m.

4051 Examination of this witness closed.

(Signed) PERRY S. HAYNES.

Subscribed and sworn before me this 11th day of April, 1881.

[L. S.] (S'g'd) M. STANLEY BIERCE,

Notary Public.

4052 1.30 O'CLOCK P. M.

Present; Irving H. Palmer, Esq., for defendant; Joseph E. Eggleston, Esq., for complainants.

CALVIN H. HAYNES, being called for the defendant and cautioned and sworn to tell the truth, the whole truth, and nothing but the truth, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Calvin H. Haynes; aged 58 years the 13th day of October last; I am a farmer, and reside in Spofford, Onondaga Co., N. Y.

Q. 2. When did you remove from Preble, Cortland Co., N. Y., to Spofford?

A. The first day of April last.

Q. 3. How long had you resided at Preble previous to your removal to Spofford?

A. About eight years.

Q. 4. Do you know Thomas J. Getman, of Preble?

A. I do.

4053 Q. 5. How long and how intimately have you known him?

A. For the past eight years we have been intimately acquainted; I knew him before, but do not know just how long; I knew his father and the whole family.

Q. 6. About how frequently have you met him during the last three years?

A. Two or three times a week; sometimes oftener.

Q. 7. Have you heard Thomas J. Getman say anything about the Tallman well near which a windmill was erected?

A. I have heard him speak of the Tallman well where the windmill was.

Q. 8. Have you heard him say, in substance, that he knew enough
to defeat or overthrow Green's driven-well patent and send it
to hell or the devil if he had a mind to tell it, or anything of
4054 that import? Please state what *what* you have heard him say
on that subject.

A. I heard him say that if tested the Tallman well would knock the prop out of Green's patent and would knock the devil out of it, if tested, for this well was driven long before he obtained his patent, and he helped drive it.

Q. 9. Have you heard him say this, in substance, on more than one occasion? If so, about how many occasions?

A. I could not state just how many occasions, but on a good many different occasions until within the last year; within the last year I have not heard him say so.

Q. 10. If you remember anything further which Thomas J.
4055 Getman said in your presence respecting this Tallman well
please state it, or the substance of it, if you are unable to give
the language.

A. Well, he said he dug the well and it became dry, and they took it up and dug it over, and it then dried again, and they then drove this pipe, and that he helped drive it; I do not now call to mind anything further.

Q. 11. Have you ever said anything to Getman about his changing his statements respecting this well? If so, please give the conversation between Getman and yourself on that subject.

A. I have talked with him about it and asked him why he did not talk as he did before; he said he did not deny but what the pipe was drove into the ground, but claimed that it was only 4056 driven to steady the pipe, and he would get mad and call me a damned fool. I asked why the holes were in the pipe if it was to be driven into the ground. He said that he could not tell why that was, and that he would not say whether it was driven six inches or a foot, but claimed that it was only driven for the purpose of steadying the pipe. That is the substance of what I remember of the conversation at present.

Q. 12. When for the first time, to your knowledge, did Mr. Getman claim the pipe was driven for the purpose of steadying it?

A. Some time last fall, I think, but at what time or how early in the fall I do not remember; it was after he had been subpœnaed here last fall by the complainants; it was some two weeks afterwards—the first time afterwards that I saw him, at any rate.

4057 Q. 13. Is it or is it not a fact that Mr. Getman changed his statements and story from what he had before related to you respecting the driving of the pipe in the Tallman well about the time he was subpœnaed by the complainants last fall?

A. I could not say that he did at that time; afterwards, when I had this conversation with him, he had changed it.

Direct examination closed.

2.40 O'CLOCK P. M.

Cross-examination:

C. Q. 14. Where in the town of Spafford do you reside?

4058 A. Near a place called Shawville.

C. Q. 15. In what part of the town of Spafford?

A. Near the southeast corner, I think.

C. Q. 16. How far is it from where you now reside to where the William E. Tallman well is located?

A. Near six miles.

C. Q. 17. How large a farm is it that you live upon?

A. It is called a hundred and fifty acres.

C. Q. 18. Do you own the farm?

A. No, sir.

C. Q. 19. Who does own the farm?

A. I suppose H. F. Kendal, of Syracuse, owns the farm.

C. Q. 20. Do you occupy the farm under an arrangement with him?

4059 A. I do.

C. Q. 21. Do you lease the farm of him?

A. Under certain conditions I do.

C. Q. 22. Is the farm leased of him in your name?

A. Yes, sir.

C. Q. 23. Is it a dairy farm?

A. Yes, sir.

C. Q. 24. Do you own the stock upon the farm?

A. I do not own the dairy stock upon the farm.

C. Q. 25. Who does own the stock upon the farm?

A. H. F. Kendal, I suppose.

C. Q. 26. Do you own any of the stock or implements used upon the farm?

A. I do.

C. Q. 27. What portion of it?

4060 A. I own the farming tools and a pair of horses.

C. Q. 28. Is there any incumbrance upon the horses and the farming tools that you own?

A. A portion of them; yes, sir.

C. Q. 29. Whereabouts in the town of Preble did you live before you went to Spafford?

A. I lived about a quarter of a mile south of Preble village, a little west of the main road, on what is now known as the George Pelton farm.

C. Q. 30. How large a farm is that?

A. Said to be one hundred and sixteen acres.

C. Q. 31. How long did you live there?

A One year.

C. Q. 32. Did you own that farm?

4061 A. I did not.

C. Q. 33. By what arrangement did you occupy that farm?

A. I furnished one-half of the stock and one-half the seed grain and one-half the feed for stock, and had one-half the proceeds.

C. Q. 34. Did you own one-half the stock upon that farm?

A. I did not. I hired a portion of it from my neighbors and owned two cows.

4062 C. Q. 35. Where did you live before you moved upon the George Pelton farm, so called?

A. I lived on what was known as the Collyer-Van Hoesen farm.

C. Q. 36. How far is that from Preble village.

A. It is called one mile.

C. Q. 37. In what direction from the village?

A. Easterly direction.

C. Q. 38. How long did you live upon that farm?

A. Three years.

C. Q. 39. Did you own that farm?

A. I did not.

C. Q. 40. Did you own the stock upon that farm?

A. I did not.

C. Q. 41. Of whom did you get the stock upon that farm?

A. I rented it from C. C. Van Hoesen.

C. Q. 42. Where did you live before you went upon that farm?

A. Preble village; in Mr. Doud's house. I forget his given name.

C. Q. 43. Did you rent the house of him?

A. I did.

C. Q. 44. How long did you live there?

4063 A. One year.

C. Q. 45. What was your business when you lived there?

A. I worked land and teamed it.

C. Q. 46. Where did you live before you lived upon the Doud premises?

A. In Eben Daley's house, in Preble village.

C. Q. 47. How long did you live there?

A. One year.

C. Q. 48. Where did you live before you moved into Daley's house?

A. I lived on what was known as the Ben. Merry farm when I moved onto it.

C. Q. 49. In what direction and how far from Preble village was that?

A. One mile west; it lay back from the main road.

C. Q. 50. Did you own that farm?

A. I did not.

C. Q. 51. Did you rent or lease it in your name?

A. The first year I was there I rented it with Eben Daley;
4064 that is eight years ago this spring. The next year it was sold and belonged to another man, and I worked it on shares.

C. Q. 52. Where did you live before you moved onto the Ben. Merry farm?

A. I lived in a place called Christian Hollow, on what was known as the Sniffen farm.

C. Q. 53. In what county is Christian Hollow?

A. Onondaga county.

C. Q. 54. And how far from Preble village?

A. The Sniffen farm is about ten miles or a little over.

C. Q. 55. How long did you live upon that farm?

A. One year.

C. Q. 56. Did you own that farm?

A. I held a deed for that farm.

C. Q. 57. How long did you own that farm?

A. Two years.

C. Q. 58. Did you sell the farm?

A. I did.

C. Q. 59. And gave a deed of it?

A. I did.

4065 C. Q. 60. Previous to eight years ago did you ever live in the town of Preble?

A. Yes, sir.

C. Q. 61. When before that did you live in the town of Preble?

A. Fifteen years ago in March I moved to Preble, I think.

C. Q. 62. Where did you move from when you moved to Preble?

A. About a quarter of a mile this side of Cardiff.

C. Q. 63. How far is that from Preble?

A. It is a little short of eleven miles—so called.

C. Q. 64. Where did you move to when you moved into the town of Preble?

A. I moved onto the Haynes farm, formerly known as the old Beeman farm.

C. Q. 65. How long did you live on that farm?

A. Three years.

C. Q. 66. Did you own the Beeman farm—so called?

A. I did not.

C. Q. 67. Where did you go to when you left the Beeman farm—so called?

4066 A. I moved into the Charlie Huntington house, about half way betwixt Baltimore and William N. Etz', known as the old Lacey house.

C. Q. 68. How far is that from Preble village?

A. A little over a mile and a half.

C. Q. 69. How long did you live there?

A. About one year.

C. Q. 70. Did you own that place?

A. I did not.

C. Q. 71. What was your business when you lived there?

A. I bought sheep, lambs, & fat cattle.

C. Q. 72. Where did you move to from there?

A. On what is known as the Giant farm, in Cardiff, from which the Cardiff Giant was taken.

C. Q. 73. Did you own that farm?

A. I held a deed for it.

C. Q. 74. Was the deed given in your name?

A. It was.

C. Q. 75. How long did you live upon the Giant farm—so called?

A. Two years.

C. Q. 76. How large a farm is it?

4067 A. I could not tell the number of acres for certain.

C. Q. 77. What year was it that you lived upon that farm?

A. Well, it is fifteen years ago this spring that I moved there, I think—yes, it is longer ago than that, come to think. (Witness here computes.) I went there in 1870, according to the best of my recollection.

C. Q. 78. Is the Giant farm, so called, the farm from which the Cardiff Giant was taken?

A. It is. I saw the old critter taken out.

C. Q. 79. Was the Cardiff giant taken out of the farm before or after you lived there?

A. It was taken out before I went there.

C. Q. 80. Was you there when it was taken out?

A. I was.

C. Q. 81. Do you know David H. Hannum, of Homer?

A. I do.

4068 C. Q. 82. Did you at one time have a conversation with him about the Cardiff Giant?

A. I did.

C. Q. 83. Did you tell him that you knew of its being buried up there or put up there?

A. I told him that I believed that it was buried there, or something to that effect.

C. Q. 84. Did you know about the time it was taken there?

A. Well, no; I did not know for certain. I saw the box which contained it go by.

C. Q. 85. Did you help dig it out or do any digging in getting it from the ground?

A. I did not.

C. Q. 86. What was you doing up there when you first saw it?

4069 A. Well, on Saturday I gathered in a lot of sheep and
lambs to make out a couple of car-loads in the forenoon. In
the afternoon I went on to the Indian fair. This was on Saturday.
Sunday morning, on my way to Preble, I stopped and saw the "petrified body," for the first time, called the Cardiff Giant.

C. Q. 87. At the time that you speak of that you saw the Cardiff Giant did you see two men with a team loaded with a large box, and have you since then stated to different persons that it contained the Cardiff Giant and was carried there to be buried, or what did you say about it?

A. If the question is divided so that I can answer it I will do so.
At the time I saw the Cardiff Giant I did not see two men with a
box. I said that I believed that the box which I saw con-
4070 tained the Cardiff Giant. On learning the history of it after-
wards and on its being traced through on the railroad from
Chicago down I believed that it contained the Cardiff Giant, and
have said so to other people.

C. Q. 88. Have you not stated to different persons that you knew when the Cardiff Giant was taken there; that two men with a team took it there and buried it, or that in substance?

A. I have stated that I believed that two men and a four-horse team, with a big box, conveyed the Cardiff Giant down onto the Newell farm.

C. Q. 89. The Newell farm is the Giant farm, so called, is it not?

A. Yes, sir; it is.

C. Q. 90. And is the farm that you occupied?

A. Yes; I occupied the Giant farm at one time; yes, sir.

C. Q. 91. Did some parties from Syracuse call upon you at
4071 one time in relation to burying a giant upon that farm?

4072 A. There was one man, who claimed to represent such
parties for the purpose of putting down a female giant, inter-
viewed me in Syracuse.

C. Q. 92. Have you stated that you knew more about this Cardiff Giant than you would tell?

A. I have.

C. Q. 93. When you lived in Preble—during the last three years
that you lived there—how far did you live from Thomas
4073 J. Getman?

A. For two years previous to the last year it was less than half a mile, and last year it was about a mile and three-quarters around by the road.

C. Q. 94. Did you ever go to the so-called William E. Tallman well with him?

A. Not that I remember of.

C. Q. 95. Have you ever been to the so-called William E. Tallman well?

A. I have.

C. Q. 96. When did you go there for the first time?

A. In the fall of 1859—so said to be—in the fall of the camp-meeting. I believe it has been dated back to the camp-meeting.

C. Q. 97. You lived then in the town of Preble, did you?

A. I did not.

C. Q. 98. Where did you then reside?

A. Christian Hollow, or Nelly Valley.

C. Q. 99. At that time did you know Thomas J. Getman?

A. I did.

4074 C. Q. 100. When was the first conversation had between you and Getman about this William E. Tallman well?

A. I think about three years ago.

C. Q. 101. Where was the conversation had?

A. I could not locate where it was.

C. Q. 102. Was the conversation had at that time which you have given upon your direct examination?

A. I think it was not.

C. Q. 103. Will you say positively that it was not?

A. I will say it was not in part; so far as the conversation run that he helped drive the pipe it was had at that time, but so far as it relates to what he now says about the pipe being driven merely to steady it it was not had at that time.

C. Q. 104. Who was present at the time you had the first conversation with Thomas J. Getman about the William E. Tallman well? Please to state, if you remember.

4075 A. I do not remember now that any one was.

C. Q. 105. Will you say that there was no one present at that conversation but you and Mr. Getman?

A. I will say that there was not anybody that I remember.

C. Q. 106. What time of the day did that conversation take place. I mean the first conversation which you say you had with Mr. Getman.

A. I could not tell you, sir.

C. Q. 107. What were you doing at the time that you had the conversation with Mr. Getman?

A. I could not tell you, sir.

C. Q. 108. Is your memory good with regard to the conversation had between you and Mr. Getman at that time?

A. It is.

C. Q. 109. What else was said between you and Mr. Getman at that time?

A. I do not remember anything in particular.

4076 C. Q. 110. What reply, if any, did you make to Mr. Getman when you had the conversation with him? I mean the conversation at the first time.

A. I do not now remember that I made any reply to it.

C. Q. 111. How long were you together at that time?

A. I could not tell you.

C. Q. 112. When did you next hear him speak of the William E. Tallman well?

A. I could not tell at no certain time when I did next hear him speak of it.

C. Q. 113. Can you tell any certain time when you did hear him speak of the William E. Tallman well; if so, when?

A. I cannot give any particular date, but a year ago last fall,
about the time they commenced collecting royalties, I think some
parties in Preble were sued or threatened with suits; Squires was
sued & Harvey Cummings; that called the agitation up in the
minds of the people; it was talked over in the post office,
4077 store, and in the street, and invariably I have heard him
make this same remark; I mean the one which I have made
on the direct examination—that it would knock the Green patent to the devil or anywhere else; different expressions he would give of it; he would express himself differently according to his feelings—that the William E. Tallman well was ahead of them all and that he knew the man that punched the holes in the pipe—but the day or hour I could not say; I do not know whether Harvey Cummings was actually sued or not; the papers were sent in and he was compelled to pay costs.

C. Q. 114. Can you tell any time or place when you had the conversation which you have spoken of with Thomas J. Getman? Please to answer yes or no.

A. Well, sir, I could not answer that just in that shape;
4078 I cannot tell any time; I have heard him say this about
Preble corners; that is where it was agitated at about that
time, up at the village, evenings.

C. Q. 115. Can you tell any place where you had the conversation with him about it? If so, please to designate the place.

A. I do not think I could where I had a direct conversation with him; I have heard him tell the yarn at the village, but not where I had a direct conversation with him.

C. Q. 116. Can you designate the place where he had the conversation with any other person which you have narrated?

A. I do not think I could any particular place.

C. Q. 117. Can you name any other person that was present at the time of the conversation?

A. I do not think I could.

C. Q. 118. Then you cannot designate the time nor the place nor
the person to whom the conversation was addressed by Mr.
4079 Getman, can you?

A. I think not.

The notary here reads C. Q. 118 and answer to the witness.

4080 The witness states that he supposed the question referred to others than himself, & answered it with that view.

C. Q. 119. Is the last statement which you have given made by you upon the suggestion of the defendant's counsel?

A. I do not know hardly how to answer that.

C. Q. 120. Previous to your making this statement did defendant's counsel say to you that you had made a mistake?

A. He made a remark that the question referred to me, which I supposed it did not.

C. Q. 121. Did he not say that you was misled and had made a mistake in your answer?

A. He said to the court that I had been misled and had made a mistake in my answer, as I understood it.

C. Q. 122. We are now about to adjourn. Will you please to refrain from talking with the defendant's counsel or with his
4081 adviser, John W. Suggett, Esq., as to any of the matters upon
which you have testified or as to any matters connected with Mr. Getman or the Tallman well until you are again present for further cross-examination?

A. If any gentleman steps up to me and asks me a civil question I shall answer him the best I know how. I shall talk with any man I meet on the street. If a man should ask me a question and I should not answer him he would think I was a damned fool.

C. Q. 123. Please to answer whether you will or will not refrain as requested?

A. I will not.

6.30 O'CLOCK P. M.

Proceedings adjourned until Wednesday, April 13th, 1881, at 9 o'clock a. m., at this place.

WEDNESDAY, *April 13th*, 1881—9 o'clock a. m.

4082 Convened pursuant to adjournment.

Present: George L. Waters, Esq., for complainants; Irving H. Palmer, Esq., for defendant.

Cross-examination of the witness, CALVIN H. HAYNES, resumed:

C. Q. 124. Are you any relation to Perry S. Haynes, the last witness who testified before this notary, in this case; if so, what?

A. I am. He is a nephew of mine.

C. Q. 125. Do you know any other member of the Haynes family to whom Getman has made any statements in regard to this Tallman well?

A. I do not.

C. Q. 126. You testified in answer to C. Q. 118, in substance, that you could not designate the time nor the place nor the person to whom the conversation was addressed by Mr. Getman. You afterwards made a correction that you supposed that the question referred to others than yourself; that there may be no misunder-
4083 standing, I now ask you, Can you designate the time or the
place where any of these conversations with Mr. Getman took place, or the persons other than yourself with whom such conversations occurred?

A. I cannot designate no person other than myself, but have heard him give a history of the William E. Tallman well driven by him and others at Preble village at the store, I think, of A. C. Carr.

C. Q. 127. Will you swear that it took place at the store of A. C. Carr?

A. I give it as my best opinion and recollection that it did.

C. Q. 128. Question repeated.

A. I give it as my best recollection that I have heard him make this statement at the store of A. C. Carr.

C. Q. 129. What I wish to know, Mr. Haynes, is whether you are so certain of it that you will put it stronger than your best 4084 recollection, and do you swear positively that it took place at the store of A. C. Carr?

A. I do not wish to put it any stronger than my best recollections.

C. Q. 130. As I understand you, you cannot mention the names of any other person or persons who were present at that conversation?

A. I could not mention any other persons; no, sir.

C. Q. 131. Is this the first conversation which you had with Mr. Getman which you remember any part of?

A. No, sir; I have sworn that it was not once before.

C. Q. 132. When was the first conversation?

A. Well, I think it was about three years ago.

C. Q. 133. Where was it?

A. I could not tell you, sir.

C. Q. 134. Who was present beside you and Getman?

A. I do not remember that any one was.

4085 C. Q. 135. Can you give any circumstance which occurred at the time of that first conversation by which the truth of your statement that you had such a conversation with Mr. Getman can be corroborated?

A. I can give no circumstance that happened at that time; there is a reason in my own mind why I remember the conversation.

C. Q. 136. Was that conversation between you and Mr. Getman?

A. It was.

C. Q. 137. Who spoke first in regard to it—you or he?

A. Mr. Getman, because it was a new thing to me entirely.

C. Q. 138. Give his words; I mean the words that he first uttered.

A. Well, perhaps I cannot give the exact words; he said the Tallman well, if tested, would knock the prop from under the Green patent or send it to the devil, or something to that effect, 4086 because that was drove long before Green obtained his patent, and described the pipe that was driven, and that he helped drive it. That is, in substance, the amount of the conversation in regard to the well.

C. Q. 139. Is that all the conversation that you remember which occurred at that time?

A. In substance it is all the conversation I now remember in regard to the William E. Tallman well.

C. Q. 140. You say, in answer to C. Q. 137, "It was a new thing to me entirely." What do you mean was a new thing to you entirely?

A. That the William E. Tallman well was a driven well.

C. Q. 141. And was that the first time that you heard that there was any controversy over the William E. Tallman well?

A. According to my best recollection it was.

C. Q. 142. When you visited the well in 1859 you saw nothing to indicate that it was anything more than an ordinary dug and 4087 stoned well from which the water was drawn by a windmill, did you?

A. I did not see anything of any well. I saw the platform and windmill. I did not even see that it was a dug well. I did not look into the well at all.

C. Q. 143. When was the next conversation with Mr. Getman in regard to this well and where?

A. I could not state when or where the next conversation was.

C. Q. 144. Who was present besides yourself and Getman?

A. I could not tell, if any one.

C. Q. 145. Can you give about the time when this second conversation occurred?

A. I could not.

C. Q. 144. Can you give the year when it occurred?

A. I could not give the exact year.

C. Q. 145. Can you give the time within five years?

A. Any time within the years 1877, 1878, and 1879, at various and different times, the same story has been told over and 4088 up till the fall of 1879.

C. Q. 146. What was said at the second conversation and who spoke first?

A. I could not say who spoke first, but in substance the same relation as to the well as the first.

C. Q. 147. Please to give that second conversation as nearly as you can.

A. That the William E. Tallman well, if tested, would knock the prop out from under the Green patent or to the devil or something else of the same import or substance.

C. Q. 148. Is that all of that conversation that you can remember?

A. He described invariably the driving of the well, &c., and the manner in which it was drove and that he helped drive it. In substance, that is all I now remember.

C. Q. 149. Please to give the words which he used in this second conversation when he described the driving of the well and the manner in which it was driven.

4089 A. Perhaps I could not give just the same words, but he said that the well had become dry, and they took a piece of gas pipe; had holes punched or drilled in it; I do not remember which; he told who punched or drilled the holes, but I do not remember his name; I do not now remember that he told how or in what manner they drove it; he said they drove it; that is pretty much all that I now remember in regard to the driving it; and, as

I have before stated, that, if tested, it would knock the prop out from under the Green patent or send it to the devil, or words to that effect.

C. Q. 150. You stated in answer to question 148 that he described "the manner in which it was drove," and in your last answer you say: "I do not now remember that he told how or in what manner they drove it." How do you explain the two answers, and which, if either, is true?

4090 A. This is the second conversation; I stated that at one conversation that I heard in the village in the fall that they drove it, and I think he said that they set a scantling on the top of the pipe and drove the scantling.

C. Q. 151. Have you given all that you now remember of the second conversation?

A. Yes, sir.

C. Q. 152. When was — third conversation that you had with Mr. Getman on the subject of the Tallman well?

A. I could not tell you.

C. Q. 153. Give it as near as you can.

A. A year ago last fall was the last conversation I now recollect, or the fore part of winter, meaning the conversation in substance that I have before repeated in regard to the William E. Tallman well, whilst he gave it as his opinion, if ever tested, it would knock the prop out of the Green patent.

C. Q. 154. Question repeated.

4091 A. I told you right straight along that I could not tell you when I had the third conversation with him on that subject.

C. Q. 155. Question repeated.

A. It was some time during the years from 1877 to 1879. I could not designate the month nor year.

C. Q. 156. Where was it?

A. I could not tell.

C. Q. 157. Who were present besides you and Getman?

A. I could not tell that any one was.

C. Q. 158. Who commenced the conversation?

A. I could not now tell.

C. Q. 159. Give the conversation.

A. The same as before, in regard to the well.

C. Q. 160. Please give it.

A. That if the William E. Tallman well was ever tested it would knock the prop out from under the Green patent; that it was in operation long before Green obtained his patent. In substance, that was the conversation.

C. Q. 161. Have you now given all of the third conversation? If not, please give in detail the part that you have not already given. 4092

A. I think that in substance I have given the conversation in regard to the well.

C. Q. 162. Did he in that conversation say anything about the pipe being punched or the well becoming dry, or the pipe being driven, or the manner in which it was driven? If so, please state what he said.

A. I do not now remember that in each and every conversation that he did describe particularly the holes in the pipe or the particular manner in which it was driven, or who drove it.

C. Q. 163. When did the fourth conversation occur?

A. I do not know that I could describe the first, second, third, fourth, and fifth, up to twenty. The only conversation that I now remember distinctly was in the fall or fore part of winter of 1879, I think.

4093 C. Q. 164. Question repeated.

A. I do not remember of any conversation, I tell you, except that of 1879.

C. Q. 165. Can you tell when the fourth conversation took place? Answer yes or no.

A. What is the meaning of the question? Do you mean the day, month, or year?

C. Q. 166. I mean the day, the month, and the year. If you are able to answer so definitely, please to tell when it occurred as nearly as you can.

A. What was the number of the last conversation referred to?

C. Q. 167. My question refers to the time of the occurrence of the fourth conversation?

A. The fourth is what I mean by the fall of 1879, or the fore part of winter. I could not tell the day nor the month.

4094 C. Q. 168. Where did it occur?

A. It occurred at Preble village.

C. Q. 169. Where in Preble village?

A. I think at the post office or store of A. C. Carr, and I would not say which.

C. Q. 170. Who was present?

A. Besides myself and Getman, not any one that I could designate. No one in particular, I mean; get it in that shape.

C. Q. 172. Was there any one there in general besides yourself and Getman?

A. I do not know. There were other persons present, but I do not remember who they were.

C. Q. 172. Who commenced that conversation?

A. I could not tell you who?

C. Q. 173. What was first said?

A. I could not tell you.

C. Q. 174. What was first said that you remember?

A. I could not now give you the language.

C. Q. 175. Give it as nearly as you are able.

A. It was a general conversation by the people present,
4095 agitating the question of the driven well, on the subject of collecting royalties, which called out the conversation from Getman and others, who had known about the well.

C. Q. 176. What did Getman say?

A. As before repeated, he described the William E. Tallman well; he made the statement of driving the pipe in the well—the holes being punched or drilled in the sides of the pipe—and that he helped drive it, and that if tested, in his opinion, it would knock the prop out of the Green patent and send it to hell or the devil or somewhere else, in his opinion—I do not remember the words—for the said well was in operation previous to obtaining the Green patent.

C. Q. 177. Have you given all that he then said?

A. In substance, I think I have, according to the best of my recollection.

C. Q. 178. You state, in answer to C. Q. 175, that others took part in this conversation. State what the others said.

4096 & 4097 A. I could not now state what the others did say.

C. Q. 179. Nor who they were; is this so?

A. I could not state who they were.

C. Q. 180. Question 122 repeated.

A. Yes, sir.

12 o'clock m.—Proceedings adjourned until 1.30 o'clock p. m., at this place.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of the witness, CALVIN H. HAYNES, resumed:

C. Q. 181. When did the fifth conversation occur?

4098 A. The next conversation after the one spoken of occurred some time in November or December last. I do not know whether it was the fifth or seventh conversation.

C. Q. 182. Do you mean that it was the next conversation after the one which you have detailed as the fourth conversation?

A. I do.

C. Q. 183. Where did that occur?

A. I think somewhere at Preble village. I cannot locate the place exactly.

C. Q. 184. Who was present?

A. I could not say who was present other than myself and Mr. Getman.

C. Q. 185. Was the conversation between you and Getman?

A. It was.

C. Q. 186. What was said?

4099 A. I says, "Jeff., I understand you have changed your views in regard to the well." He says, "I do not know that I have." I says, "You claimed it to be a drove well for water, and I now understand that you claim that it was only driven to steady the pipe." He says, "I do not know whether it was driven six inches or two foot." He says, "I ought to know more about it than you, for I helped put it there." I says, "I know nothing about it, only what you have frequently told me—that it would knock the Green patent if tested." He got a little mad and said he knew more about it than I did, and left me. That is, according to the best of my recollection, the substance of the conversation.

C. Q. 187. When was the sixth conversation which you had with him and where?

4100 A. Well, sir, I do not directly remember any particular conversation in regard to it after the last one mentioned.

C. Q. 188. On how many occasions did Mr. Getman state to you in regard to the Tallman well that, "if tested, it would knock the prop out of the Green patent and send it to hell or the devil or somewhere else, in his opinion?"

A. I could not tell how many times he might have told it to me, anything further than I have already stated.

C. Q. 189. Have you not stated that he told you this more than twenty times?

A. I may have stated in a careless manner that he had told me twenty times, not calculating to be understood that I really knew or remembered how many conversations of the kind might have been had with him in the matter of the well.

C. Q. 190. According to your best judgment, did he make this statement to you more than twenty times, as you have
4101 stated? Please answer yes or no.

A. I do not think he has as often as twenty times; and, as I said before, I do not know how many times, nor have I stated under oath that he told we twenty times or more. If it is on the record it is without my consent or knowledge.

C. Q. 191. Do you not claim to be a truthful man and one whose statements not under oath are just as truthful as statements under oath?

A. In one view of it I do. Still we all in a careless way speak at random.

C. Q. 192. And did you thus speak at random when you stated that he had made this statement to you more than twenty different times?

A. It was a random statement if I so stated. I have no recollection of making such statement whilst here.

4102 C. Q. 193. In your answer to C. Q. 163 you stated, "I do not know that I could describe the first, second, third, fourth, and fifth, up to twenty," and this in answer to a request to give the fourth conversation. That was a statement which you made under oath. What did you mean by it?

A. I meant this, that I could not designate the number of times anywhere, to any great amount, as to the number—that is, one, two, three, four, five, six, or so on, not meaning to say that I had had twenty different conversations.

4103 C. Q. 194. Now, Mr. Haynes, that you may not be misrepresented by the record, as you claim to have mentioned the number twenty in a careless manner, if you mentioned it at all, I will now ask you to give your best judgment of how many times Mr. Getman stated to you in regard to the Tallman well that, "if tested, it would knock the prop out of the Green patent and send it to hell" or the devil or somewheres else, in his opinion.

A. Well, positively I could not say, but my best recollections would be five or six times at the most.

4104 C. Q. 195. Did you not consider it a little singular that this man should make the same statement to you, a disinterested party, five or six times?

A. I did not.

C. Q. 196. And do you not consider it a little singular and suspicious that you can*not* locate only one of these conversations, and that you cannot tell of a human being that was present at any one of them, and that you cannot mention the name of a person who can corroborate you as to any of these conversations?

4105 A. My verdict is that I shall send you both up for sixty days.

C. Q. 197. Accepting your verdict as just, I will now ask you to answer C. Q. 196.

A. I do not consider it suspicious on my part.

C. Q. 198. Have you given all of the conversations which you had with Mr. Getman or merely the substance of all as you can remember?

A. I have given all and the substance too; all that I can now remember to the best of my recollection.

C. Q. 199. Do you mean that you have given his exact language?

A. I do, as near as I now remember, in regard to the well.

C. Q. 200. You do not answer my question. Do you mean that you have given Mr. Getman's exact language? Do not answer it that you have given it as near as you can remember, but
4106 please to answer the question.

A. I do not pretend to give anything more than my recollection in the matter; that *that* I do not recollect or do not know I could not answer.

C. Q. 201. You do not pretend, do you, to give his language word for word?

A. I pretend to give it in substance as near as I remember it.

C. Q. 202. Question repeated. Please answer yes or no.

A. I answer again as before that I gave his language as near as I remember and my best recollection.

C. Q. 203. Question repeated.

A. The same answer as before.

C. Q. 204. Do you pretend to give his language word for word just as he uttered it? Please observe the question and do not longer try to evade it.

A. I claim to give the language in substance as I remember it.

C. Q. 205. Question repeated. Please answer yes or no.

A. The answer the same as above.

4107 C. Q. 206. Do you refuse to answer the question differently than you have?

A. I refuse to answer the question any differently than my best recollection.

C. Q. 207. Mr. Haynes, I have asked you a fair question several times and you have as many times equivocated and evaded it. Once more I put to you the question and ask an answer of yes or no. Do you pretend that you have given the exact language of Mr. Getman, word for word, just as he uttered it?

A. I do pretend that I have given the language of Mr. Getman, according to my best recollection.

C. Q. 208. Question repeated. Please answer yes or no.

A. I do pretend that I have given the language of Mr. Getman just as he uttered it, according to my best recollection.

C. Q. 209. Do you refuse to give any different answer to my question?

A. I think that I have fully answered your question all that is in my power to do.

4108 & 4109 C. Q. 210. You have not answered my question, Mr. Haynes. I do not ask for your best recollection. What I want to know is: Will you swear positively that you have given the exact language of Mr. Getman, word for word? Please answer yes or no.

A. I have given the language positively of Mr. Getman as near and all as I now remember.

C. Q. 211. Question repeated.

4110 A. The answer is the same as before, that I have given
4111–4117 the language as near as I can recollect it, and that is
all I can do; according to my best recollection, I have done so.

C. Q. 212. You still do not answer my question. You have answered over and over again that you have given the language as near as you can recollect. Please do not answer in that way again. Will you swear positively that you have given the exact words of Mr. Getman?

4118 A. I say again that I have given the exact words of Mr. Getman, as near as I can remember them. That is the best I can answer that question, Mr. Waters.

C. Q. 213. Do you swear that you do remember his exact words?

A. In regard to this well?

C. Q. 214. Yes.

A. I think I do.

C. Q. 215. Do you remember all that he said in each of those conversations?

A. I do not know that I do.

C. Q. 216. Do you know whether you do or not?

A. I have related all that I do remember. I do not know whether I do—all that was said—or not.

C. Q. 217. You will not swear positively, will you, that he did not make some statements in those conversations which you have not related?

4119 A. I will not swear but what there might have been something said in these conversations that I have not related, but I have related all that I now remember.

C. Q. 218. Is it not your best impression, Mr. Haynes, that Mr. Getman, in these numerous conversations, did say some things or make some remarks in relation to the Tallman well which have passed from your memory?

A. It is not.

C. Q. 219. Is it your best impression that you have repeated every remark which he made in all those conversations in regard to the Tallman well?

A. I have, to the best of my recollection.

C. Q. 220. Question repeated.

A. Answer as above.

C. Q. 221. Do you refuse to make a different answer to this question?

A. I think I have fully answered the question.

C. Q. 222. Do you understand question 219?

A. I think that I do.

4120 C. Q. 223. You have testified that you will not swear but what there might have been something said in those conversations that you have not related, but that you have related all that you now remember. I desire to go further than that, and I now ask you again, is it your best impression that you have related every remark which Mr. Getman made during all of those conversations?

A. I think, in answer to that, that it is possible that I have not.

C. Q. 224. You still evade my question. Is it your best impression that you have related every remark which Mr. Getman made during all of those conversations?

A. My best impression is that I have related all that I now remember.

C. Q. 225. Mr. Haynes, do you intend to answer my questions fairly?

A. I do, to the best of my ability.

C. Q. 226. Question 224 repeated.

A. My best impression is that I have or nearly so.

4121 C. Q. 227. You qualify your last answer by the words "or nearly so." Do you mean by that qualification that it is your impression that he made some statements which you have not given?

A. It is not my impression, according to my knowledge or remembrance, but I consider it possible that something might have been said that I have now forgotten.

C. Q. 228. Do you claim to have a good memory?

A. Well, sir, I do not claim to have a first-rate memory in all things, to be honest about it.

C. Q. 229. Was there anything about these numerous conversations with Mr. Getman that so impressed itself upon your mind—you not having a first-rate memory, as you have testified—that enables you to remember every word that he said while you have forgotten when he said it, where he said it, or who was present when he said it?

4122 A. I do not claim to remember every word that might have been said. The agitation over the driven well and royalty kept it in my mind.

C. Q. 230. Can you say how the remarks of Mr. Getman, which you can not remember, modified or affected the statements which you do remember? Please answer yes or no.

A. I could not tell what I do not remember that was said by Mr. Getman, nor what effect it would have on what I do remember.

C. Q. 231. Did Mr. Getman tell you at any time how long this pipe, which was driven in the well, was when first driven?

A. I do not think he did. To my best recollection, he never did.

C. Q. 232. Did he tell you how far into the earth it was driven?

A. My impression is that he did not.

C. Q. 233. Then there was nothing in his statement, was there, that disputes the statement that it was driven into the earth only far enough to steady it?

4123 A. I think there was.

C. Q. 234. You stated in answer to question 232 that it was your impression that he did not tell you how far into the earth it was driven. You have stated in answer to other interrogatories that you have given all that you can remember of his statements, and in none of these statements have you mentioned the depth to which the pipe was driven. Now, in view of these statements, please explain your last answer.

A. I have stated somewhere that he said the well was dry—that they drove this pipe for the purpose of getting water, as I understood him, but he never told me the depth, as I have stated before, as I remember of. He did not tell any depth to which he drove it.

C. Q. 235. Have you now given in your last answer all that

4124 he said contradictory of the statement that it was driven into the earth only far enough to steady it?

A. I do not know as I fairly understand that question. (Question re-read by the notary.) I think I have given all.

C. Q. 236. Will you refrain from talking in regard to this driven well or conversation with Getman, with defendants' counsel, or John W. Suggett until you appear here again at the adjourned hour?

A. I will.

C. Q. 237. And also with complainant's counsel?

A. Yes, sir.

6.15 o'clock p. m.—Proceedings adjourned until Thursday, April 14th, 1881, at 8.30 o'clock a. m., at this place.

4125 Thursday, *April 14th*, 1881—8.30 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of the witness, Calvin H. Haynes, resumed:

C. Q. 238. To whom have you repeated the conversations which you had with Mr. Getman?

A. I do not now remember any one in particular.

C. Q. 239. Have you repeated them to any one?

A. I think I have talked this matter up.

C. Q. 240. On how many occasions?

A. I could not tell.

C. Q. 241. Do you know how the defendants became cognizant of the fact that you had heard these statements?

A. I do not.

C. Q. 242. How many interviews have you had on the subject with defendant's counsel, Mr. Palmer?

4126 A. I have had no interview aside from what has transpired in this room. I did not know the gentleman before I came here. I have had no interview with him other than as a witness. I mean in regard to this well.

C. Q. 243. How many have you had with John W. Suggett?

A. I have talked with him once at the foot of the stairs in this building.

C. Q. 244. Who subpœnaed you to come here?

A. Well, sir, I have not been subpœnaed regularly.

C. Q. 245. How came you here, then?

A. I was notified by De Witt C. Callen and refused to come. He said he had no subpœna, for they did not generally send one. He said that I would have to come, and that I would get my pay just as well as though I was regularly subpœnaed, and so I consented to come.

C. Q. 246. Did he tell you what the defendant wanted you to swear to?

A. He did not.

C. Q. 247. Did you know until you got here for what purpose you was wanted?

4127 A. Nothing further than that I supposed it was for my testimony in regard to my knowledge of the Tallman well.

C. Q. 248. How came you to suppose that your knowledge of the Tallman well would be important?

A. I had been informed that my name was down by Mr. Keach. I had been told by Mr. Callen during their examination of witnesses in Preble that I probably would be called to Cortland.

C. Q. 249. Mr. Keach was an attorney who appeared on behalf of the defendants in a driven-well case in which testimony was taken at Preble. Is this not so?

A. It is.

C. Q. 250. And did he inform you that your "name was down" when he was there taking testimony at Preble?

A. No, sir.

C. Q. 251. When did Mr. Keach thus inform you?

A. I do not now remember that Mr. Keach informed me so at all.

4128 C. Q. 252. Did you not testify, in answer to C. Q. 248, "I had been informed that my name was down by Mr. Keach?"

A. I did not mean to be so understood; I meant to be understood that Mr. Callen so informed me; I meant to be understood that Mr. Callen so informed me that Mr. Keach had "my name down," and that I would probably be called to Cortland.

C. Q. 253. Did Mr. Keach ever talk with you on the subject of Getman's statements?

A. Not that I remember of in particular.

C. Q. 254. And did he in general?

A. I do not remember that he did in particular, but he might have said something about it; I did not talk with Mr. Keach much, anyway.

C. Q. 255. Can you tell how it was that Mr. Keach should have
your name down as a witness to contradict Getman when Get-
4129 man has never been sworn in the case in which Mr. Keach
is counsel, and when he had never been sworn in any case

until long after Mr. Keach had ceased to take testimony at Preble and had left there?

A. I do not know that Mr. Keach wanted me to contradict Mr. Getman, nor, of my own knowledge, how he came by my name or for the exact purpose for which he had it; all I know is what I learned of Mr. Callen.

C. Q. 256. Has not Mr. Callen been the lackey for the defendants in the town of Preble?

A. He has subpœnaed the witnesses.

Cross-examination closed.

4130 9.30 O'CLOCK P. M.

Redirect examination:

R. D. Q. 257. Has it frequently occurred during your cross-examination here that statements which you made in conversation, not supposing that they would go upon the record, have been taken down upon the record?

A. There has been things written out that I did not suppose was testimony, but what they are I could not tell at present without referring to the minutes.

4131 R. D. Q. 258. Mr. Haynes, you have been asked on the cross-examination many questions respecting the Cardiff Giant. Had you anything to do with planning, originating, or planting the Cardiff Giant, so called, or did you in any way profit thereby?

A. I did not.

R. D. Q. 259. You have stated on your cross-examination that you were at the Tallman well in 1859. When was that, with reference to the time when the camp-meeting was in session on the farm of Moses T. Tallman, and was the windmill erected and in operation at this well at the time you visited it in 1859?

A. During the time of the camp-meeting on Mr. Moses Tallman's farm I think I visited the well on the William E. Tallman farm. The windmill was erected, but whether it was then running at that time or not I could not say.

R. D. Q. 260. Was there ever more than one camp-meeting
4132 at Preble on the farm of Moses T. Tallman to your knowledge, information, or belief?

A. There was not but this one to my knowledge or information.

Redirect examination closed.

9.50 O'CLOCK A. M.

Recross-examination:

R. C. Q. 261. Have you made any statements which have been taken down here by the notary, whether they were intended by you as answers to questions put or for conversation aside, that you do not believe to be true? If so, please designate those which are false.

A. I do not now remember anything that was not true or intended to be.

R. C. Q. 262. Your answers have been read over to you, have they not, after the notary recorded each one?

A. They have.

Recross-examination closed 10 o'clock a. m.

4133 Examination of this witness closed.

(Signed) C. H. HAYNES.

Subscribed and sworn to before me this 14th day of April, 1881.

[L. S.] (Signed) M. STANLEY BIERCE,
Notary Public.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.
Present: As before.

4134 DIX HOBART, being called for the defendant and cautioned and sworn to tell the truth, the whole truth, and nothing but the truth, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Dix Hobart; my age is 66 years; I live in the town of Virgil, Cortland Co., N. Y., and I am a farmer.

Q. 2. Did you formerly reside at Preble, Cortland Co., N. Y.; if so, from what time to what time?

A. I lived in Preble previous to 13 years ago this spring—23 years.

Q. 3. Did you know William E. Tallman in his lifetime? If you did, how long and how intimately had you been acquainted with him?

A. I knew him from a boy; we were both brought up in the town of Tully; we used to attend church when we were boys at Tully Center—the Baptist church, and frequently at Tully, and we were intimate friends.

4135 Q. 4. When William E. Tallman lived in Preble was it your custom to patronize his grist-mill? If it was, about how frequently were you at his mill and how frequently did you see him?

A. Well, when I wanted to go to mill I went there most always. He was not the miller, and sometimes I did not see him and sometimes I did. I could not tell how frequently I saw him.

Q. 5. Did you know George W. Way when he resided at Preble? If you did, state about how frequently and under what circumstances you saw him.

A. I knew him; he was a blacksmith there; his shop was just south of the mill. I used to go to mill frequently and when I wanted any blacksmithing done would go to Mr. Way while my grist was grinding, and do it all under one.

4136 Q. 6. Do you remember an occasion when Mr. Way punched and prepared a piece of iron gas pipe when you were at his shop near the mill?

A. I do.

4137 Q. 7. I now show you the piece of perforated iron gas pipe marked in this case as follows:

"United — Circuit Court, District of Iowa."

WILLIAM D. ANDREWS *et al. vs.* GEORGE LELAND.

Part of original piece of pipe identified by Thomas J. Getman in his testimony in the above case and marked for the purpose of identification.

Dated Cortland, N. Y., March 7, 1881.

[L. S.] WILLIAM D. TUTTLE,
Notary Public."

Is that the pipe or a part of it which you saw George W. Way punch and prepare at his shop in Preble?

A. It looks like it; it is not so long as when I saw it.

Q. 8. In what respect does it now differ in appearance from what it was after Mr. Way had finished punching and preparing it?

4138 A. Well, one thing is it is shorter; another thing, the end with the holes was more pointed, if this is the one.

Q. 9. About how long was the pipe at the time you saw it punched?

A. I should think from four to six feet.

Q. 10. Please describe what you saw done to the pipe.

A. I saw part of the holes punched in. The point was made when I got there.

Q. 11. Who was present at the time it was punched?

A. William E. Tallman; there was others, but I could not say positive who they were.

4139 Q. 12. What, if anything, did William E. Tallman say he intended to do or have done with the pipe?

A. He said he was going to put it in a well that was dry, over in his pasture across the railroad. I would like to correct that a little; he said he was going to drive it in a well he had over across the railroad that was dry.

Q. 13. Did you afterwards see a windmill which was erected in his pasture, on the west side of the railroad; if so, about how long after the pipe was punched?

A. I saw the windmill, but I could not tell how long; it might have been a week; it might have been two weeks or it might

4140 have been four weeks; I could not tell how long.

Q. 14. Was it within a few weeks or months?

A. It was; yes, sir.

Q. 15. How came you to see the windmill, and how near did you go to it?

A. I saw it when I was going to mill; it was in sight on both roads as I went to mill; I saw it when I went to camp-meeting on Moses Tallman's land.

Q. 16. Did the railroad run between the field in which this windmill and well were located and the house in which William E. Tallman then lived, and did the railroad run west of the house?

A. It did run west of William E. Tallman's house and east of the windmill and well.

Q. 17. Was this windmill erected and in operation at the time when the camp-meeting was held on the farm of Moses T. Tallman?

4141 A. It was.

Q. 18. Was there ever but one camp-meeting, to your knowledge, information, or belief, on the premises of Moses T. Tallman?

A. There never was to my knowledge, not previous to 13 years ago.

Q. 19. Did you go to this well and windmill in company with William E. Tallman; if you did, about how long was it after the pipe was punched?

A. Well, I can't tell; I did go; it wa'n't long. I went down to mill, and Mr. Tallman says, "I want to have you go and see my windmill and see how nice it works." We went there, and it was pumping nice. The water run into a large tub or trough, I 4142 would not be positive which, and then there was a pipe or spout by which the water, when it got so high, run back into the well.

Q. 20. Did William E. Tallman on that occasion tell you how the well was constructed? If so, please state what he said about the well.

A. I could not tell as there was anything said about the construction of the well at that time.

Q. 21. Did he tell you at any other time?

A. No, sir; I do not know as he did. I told him when he punched the pipe that I thought it would not work, and he thought it would. "Now," says he, "I want you to go over and see how nice it works." I went over and saw it and it worked good.

4143 Direct examination closed 2.50 o'clock p. m.

4144 Examination of this witness closed 3 o'clock p. m.

(Signed) DIX HOBART.

Subscribed and sworn to before me this 14th day of April, 1881.

[L. S.] (Signed) M. STANLEY BIERCE,
Notary Public.

Proceedings adjourned until Friday, April 15th, 1881, at 10 o'clock a. m., at this place.

FRIDAY, *April 15th,* 1881—10 o'clock a. m.

Convened pursuant to adjournment.

Present: As before.

At the request of defendant's counsel proceedings held open for the arrival of a witness until 11.05 o'clock a. m.

4145 11.05 O'CLOCK A. M.

Present: As before.

WILLIAM E. HUNT, being called for the defendant and cautioned and sworn to tell the truth, the whole truth, and nothing but the truth, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is William E. Hunt; my age is 48; my occupation is a farmer; my residence is Lapeer, Cortland Co., N. Y.

Q. 2. What positions of public trust have you held?

A. Supervisor of the town, justice of the peace, justice of the sessions, and town clerk.

Q. 3. Do you hold either of these offices now; and, if so, which of them?

A. Supervisor and justice of the peace.

Q. 4. Were you at Preble in company with Jed. Lake, John
4146 W. Suggett, and Irving H. Palmer on the 12th of September,
1880.

A. I was.

Q. 5. Were you and Mr. Lake then introduced to Thomas J. Getman, and did you then hear a conversation between Mr. Getman and either of the gentlemen named in the last answer?

A. We were introduced and I heard the conversation.

Q. 6. Relate that conversation so far as it had reference to the Tallman well, so-called.

A. Mr. Getman told Lake that Tallman went down into the well and held a scantling on this pipe, and that he was upon the ground and drove upon the top of the scantling to drive the pipe into the ground. Lake asked him how far they drove it down. Getman said he could not tell. Lake asked him if it was six feet. Getman
said no; he should not think it was more than four feet.

4147 Q. 7. Did Mr. Getman say anything in that conversation
which you now recollect as to whether or not the dug well into the earth, at the bottom of which the pipe was driven, was dry at the time the same was driven? If so, please state what he said on that subject.

A. I think he said that the well had failed.

Direct examination closed.

11.25 O'CLOCK, A. M.

Cross-examination:

C. Q. 8. Lapeer, the town where you reside, is in the extreme southern part of the county of Cortland, and Preble, the town where this conversation occurred, is in the extreme northern part of this county; is this not so?

A. It is.

C. Q. 9. How came you to go to the town of Preble in such company?

4148 A. I was here at Cortland to spend the Sunday with Lake.
Mr. Palmer, Mr. Suggett, and Mr. Lake were going up, and I went up with them.

C. Q. 9. Did this conversation occur on Sunday?

A. It did.

C. Q. 10. And was Palmer, Lake, and Suggett out scouring the country for witnesses on that day?

A. I understood that they were going up to take some measurements of this Tallman well, and I went up with them.

C. Q. 11. By what conveyance did you go?

A. Mr. Suggett and Mr. Palmer went with a horse and buggy of their own, and Mr. Lake and I went with a livery rig.

C. Q. 12. What relation, if any, is Jed. Lake, Esq., to you?

A. Brother-in-law.

C. Q. 13. How many persons did he interview in your presence in regard to the Tallman well on that day?

A. I think there were but four that I remember of.

4149 C. Q. 14. Who were the four?

A. This Getman was the only one I was introduced to.

C. Q. 15. Had you ever seen Getman before that day, to your knowledge?

A. No, sir.

C. Q. 16. Have you ever seen him since that day?

A. No, sir.

C. Q. 17. Do you know Thomas J. Getman?

A. No, sir; only as I was introduced to him that day.

C. Q. 18. Can you swear positively that this man you were introduced to was Thomas J. Getman?

4150 A. No, sir.

C. Q. 19. What time of day did you leave Cortland?

A. My recollection is between 11 and 12 o'clock a. m.

C. Q. 20. Where did you go to first?

A. We went to Homer first.

C. Q. 21. What did you do there?

A. Passed directly through the place without stopping.

C. Q. 22. From there where did you go?

A. Preble, to the vicinity of the well. The first place we stopped was where this conversation with Getman took place.

C. Q. 23. What time of day did you get to the point where Getman was?

A. Well, I should say between one and two in the afternoon; it might have been a little later; I could not say positively.

C. Q. 24. At the time Getman was thus horse-shedded, were your co-Sabbath breakers, Palmer and Suggett, present?

A. They were.

C. Q. 25. Where did you find Getman?

A. He was in the road.

4151 C. Q. 26. At what point?

A. Near where the conversation took place.

C. Q. 27. Where was that?

A. It was in front of a white house on the south side of the cross-road going over towards where the well was, which they said was Tallman's house.

C. Q. 28. Who first accosted Getman?

A. Mr. Palmer and Mr. Suggett.

C. Q. 29. What did they say to him?

A. They were a few rods ahead of us, and I do not know what they did say to him; they had stopped there and were talking to him when we drove up.

C. Q. 30. Were Palmer and Suggett in their wagon when you drove up?

A. They were.

C. Q. 31. Where was Getman?

A. Side of the road, on the southeast side of their wagon.

C. Q. 32. Where did you and Lake go?

A. We drove up on the east and north side of him.

4152 C. Q. 33. So that poor Getman was thus surrounded on all sides by defendants' counsel or their relatives? Is not this so?

A. It would have been if we had been on the south side, but there were none on that side.

C. Q. 34. Who commenced the pumping of Getman?

A. I think Mr. Palmer, as we drove up, introduced Mr. Getman to Mr. Lake and myself.

C. Q. 35. What did he say?

A. He introduced Mr. Getman to us, and said, "Perhaps you would like to talk with this man;" something of that kind was said; I could not remember exactly.

C. Q. 36. Did you then yet begin to mistrust why you had been taken along with these horse-shedders and Sabbath-breakers?

A. I saw nothing alarming at that time.

C. Q. 37. When did you first begin to see alarming symptoms?

4153 A. I could not say that I saw anything that alarmed me at all.

12 o'clock m.—Proceedings adjourned until 1.30 o'clock p. m., at this place.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of the witness, WILLIAM E. HUNT, resumed:

C. Q. 38. After Mr. Getman was introduced to you, as you have testified, who spoke next, and what did he say?

A. Well, I had no conversation with Mr. Getman. Mr. Lake and he had the conversation.

C. Q. 39. Question repeated.

4154 A. The conversation — between him and Lake. I think Lake asked him if he was the man that had something to do with putting down the Tallman well. Just previous to that either Mr. Palmer or Mr. Suggett, and I think it was Mr. Palmer, said to Lake, "This is the man that helped to put down the Tallman well." Then Mr. Lake spoke to Mr. Getman as above stated.

C. Q. 40. Was Mr. Palmer's statement, that this was the man that helped to put down the Tallman well, made in the presence and hearing of Getman and Lake?

A. It was.

C. Q. 41. Did you not think it rather strange that after Mr. Palmer had made such a statement that Mr. Lake should ask him "If he was the man that had something to do with putting down the Tallman well?"

A. I did not.

C. Q. 42. What did Mr. Getman say when Mr. Lake asked him this question? Please give his exact language.

4155 A. As near as I can give it, "I suppose I am."

C. Q. 43. What was the next thing that was said, and who said it?

A. Lake asked him how deep they drove it—drove the pipe; he said he did not know.

C. Q. 44. What was next said, and by whom? Give the exact language.

A. Lake asked him if they drove it six feet.

C. Q. 45. What did Getman say?

A. He should not think it was more than four feet.

C. Q. 46. Please give Getman's exact words when he made that answer.

A. "I should think not more than four feet."

C. Q. 47. Will you swear that these are the exact words that he uttered?

A. I can swear that is what he said.

C. Q. 48. Please answer that question definitely.

Question repeated.

A. I answer it in the same way that I did before.

4156 C. Q. 49. Your answer was, "I can swear that is what he said." Do you swear that those are the exact words of his answer to Mr. Lake?

A. I do.

C. Q. 50. And the whole of his answer?

A. The whole of his answer to that question.

C. Q. 51. Did he not say this, or this in substance, "I do not know how deep they drove it; I cannot say whether they drove it six inches or four feet or six feet?"

A. He did not.

C. Q. 52. You have now given the exact words of Mr. Getman's reply to Mr. Lake's question when he asked him if they drove it six feet. Please to give the exact words that were next spoken in that conversation.

A. Mr. Lake asked him how they drove the pipe.

C. Q. 53. Are those his exact words?

A. As near as I can repeat them.

C. Q. 54. Do you swear that they are his exact words?

A. I think I do.

4157 C. Q. 55. Did you not think it strange that Lake should say, when asking Getman a question, "How they drove the pipe?"

A. I did not.

C. Q. 56. Is Lake an ignorant and unlearned man?

A. I do not consider him so.

C. Q. 57. How, then, do you account for his awkward way of putting the question—"How they drove the pipe?"

A. I did not consider it was an awkward way.

C. Q. 58. Would you not consider it less awkward to have said, "How did you drive the pipe?"

A. I do not think that Lake knew that he drove the pipe at that time.

C. Q. 59. What makes you think this?

A. There had been nothing said up to that time that he did drive it.

C. Q. 60. Passing the form of the question—"How they drove the pipe?"—please give the exact words of Mr. Getman's answer thereto.

4158 A. Getman said that Tallman was down in the well and held a scantling on the pipe and he drove it.

C. Q. 61. Are these his exact words?

A. As near as I can repeat them.

C. Q. 62. Do you swear that those are his exact words?

A. As near as I can repeat them.

C. Q. 63. Have you repeated them exactly as he gave them, word for word?

A. I have tried to, and I think I have.

C. Q. 64. Do you swear that you have?

A. I think I do.

C. Q. 65. You say Getman said "that Tallman was down in the well and held a scantling on the pipe and he drove it." Who did you understand he meant by "he?"

A. Getman.

C. Q. 66. Did you not think it rather strange that he should call himself "he?"

A. I did not.

C. Q. 67. State the exact words that were next said and who said them.

4159 A. Well, sir, it is my impression that Lake asked him what the object was in driving the well, and he said the well had failed; that would be my recollection.

C. Q. 68. Are those Lake's exact words?

A. As near as I can repeat them, I should say they were.

C. Q. 69. Do you swear that they are?

A. I think I do.

C. Q. 70. I do not understand what you mean by "I think I do." Do you so swear or don't you?

A. According to my recollection that is just what I swore to.

C. Q. 71. My question is, Do you swear that you have given the exact words of Mr. Lake? Please answer yes or no.

A. Yes, as near as I can recollect.

C. Q. 72. And is that as strong as you will put it?

A. It is.

C. Q. 73. Then you will not swear positively, will you, that you have given his exact language?

A. I have sworn as positive as I could be.

4160 C. Q. 74. Do you mean by that that you are positive that you have given his exact language?

A. I think I repeated it as near positive as I can.

C. Q. 75. You do not answer my question. Are you positive or are you not positive that you have given his exact language? Please answer directly.

A. I am quite positive that I have.

C. Q. 76. Give the next thing that was said, using the exact language used.

A. I think there was where Mr. Getman said he was hungry, and was going to have something in him, and started for the house. Mr. Palmer and Mr. Suggett drove over to the well, and Lake and I followed them. I did not see Getman again.

C. Q. 77. You have now given the exact language of a conversation which occurred nearly eight months ago. Did you take it down—the reason that you are able to give it *verbatim?*

A. I did not take it down, but my attention was particu-
4161 larly called to remember it.

C. Q. 78. Who called your attention to remember it?

A. Lake.

C. Q. 79. What did he say?

A. He called my attention to remember what Mr. Getman said.

C. Q. 80. Did he tell you for what reason?

A. No; nothing in particular, only he said to remember what he said.

C. Q. 81. Did he tell you that you would some time be called as a witness to contradict Getman?

A. He did not.

C. Q. 82. Did you not think it strange that he should want you to remember that?

A. It appeared that he had some motive in view, but there was no explanation.

C. Q. 83. Question repeated.

A. No; I do not know as I thought there was anything strange about it.

C. Q. 84. He had other talks with other men about the well that day, did he not?

4162 A. He did.

C. Q. 85. Did he request you to remember what any one else said?

A. He did.

C. Q. 86. Who?

A. The man that went down into the well and put the pump on this pipe that had been driven.

C. Q. 87. Who was it?

A. I cannot call his name.

C. Q. 88. Were you introduced to him?

A. Not particularly.

C. Q. 89. Not as particularly as you were to Mr. Getman?

A. I think there was really no introduction given at that time.

C. Q. 90. Did you hear his name?

A. I did.

C. Q. 91. Can you remember the exact words of what he said?

A. I think not the exact words; there was a sort of a general conversation. At that time there was two men there that had had something to do with this well; the other man, he said he took
4163 the pipe to the blacksmith shop and got the holes drilled in or punched in.

C. Q. 92. Can you remember the exact language of any other conversation which you had that day?

A. I do not know that I can unless my attention should be called particularly to it.

C. Q. 93. Is it not true that Messrs. Palmer, Suggett, Lake, and yourself had a rollicking, boisterous, and riotous time that day?

A. I saw no rollicking; I saw no riotous demonstrations, nor anything boisterous.

C. Q. 94. Please to give the names of such of your party as were sober on your return to Cortland that night.

A. I. H. Palmer, J. W. Suggett, Jed. Lake, and William E. Hunt.

C. Q. 95. The next to the last witness which the defendants paraded here to dispute Getman testified that he never yet saw a man so drunk that he would himself own that he was drunk. In making your last answer do you go upon the same theory?

4164 A. I know nothing about the last witness nor his theory. So far as the three are concerned, I know they did not drink anything in my presence, and, so far as myself is concerned, I will swear that I never drank a tumblerfull of liquor in my life.

C. Q. 96. Suggett and Palmer were quite frequently "out of your sight" that day, were they not?

A. Not as much as we would like to have had them; they drove ahead.

C. Q. 97. You say you did not think it strange that Mr. Lake should ask you to remember this conversation with Getman. Did you think that he was then preparing you for a witness in this case?

A. It looked as though I might be called upon.

C. Q. 98. Do you mean that you then thought that that was his purpose in asking you to remember Getman's conversation?

A. I do not know that I did.

4165 C. Q. 99. What do you mean, then, by saying, "It looked as though I might be called upon?"

A. It implied a doubt. I might or might not.

C. Q. 100. Did it then occur to you that he was then preparing you for a witness in this case? Please answer directly.

A. As I said before, I could not say no more than what I have said. He cautioned me to remember it and I did so.

C. Q. 101. Mr. Hunt, I think you evade my question. Did you then think that he was preparing you for a witness? Please to answer affirmatively or negatively without evasion.

A. I am very sorry to have you think that I wish to evade your question. I did not really think at that time that he did. I certainly should not have went up there if I had thought that was what he wanted.

C. Q. 102. What, then, did you think his object was? You say you did not then think strangely of the request.

4166 A. I came up here to visit with him and went up there to be with him. My wife came up here with me to spend the Sabbath with him. I received a letter from him two weeks before saying that he would be here that week and wanting to know if we could not come up, as he would be so busy that he could not come down to our place. We came up Saturday & went back Monday.

C. Q. 103. You have again evaded my question. What, then, did you think Jed. Lake's object was in asking you to remember Getman's conversation? You say you did not think strangely of his request.

A. Well, it was a matter that I knew nothing about and cared nothing about and even thought nothing about at that time.

C. Q. 104. And still you say, do you, that you did not think it strange that you should be asked to remember a thing that you "knew nothing about, cared nothing about, and thought nothing about?"

A. I answer the same as I did before.

4167 C. Q. 105. I do not know what answer you refer to. Question repeated.

A. I do not think any of the party expected to see Getman or any of these other men that we did see; as I understood it, they were simply going up to make some measurements of the Tallman well and — right back; I do not know what object they had in making the measurements and I asked no questions; consequently I do not think they intended to bring me in as a witness, but the circumstances as they transpired happened to come just as they did.

C. Q. 106. Do you think, Mr. Hunt, that your last answer is a fair answer to my question?

A. I think that I have, for I certainly did not know what different I could answer it.

C. Q. 107. I think that you have evaded not only this question but many others, but I will not press the question further if

4168 you do not desire to make other answer. I will now ask you, Do you not think it strange that this conversation, which you then knew nothing about, thought nothing about, and cared nothing about, and which occurred more than six months before Getman was sworn at all, should have so impressed itself upon your memory that you are able to repeat it word for word when after events have made it important in an important suit wherein your brother-in-law is solicitor?

A. I am very sorry to have you think so, but I did not know that Mr. Getman had ever been sworn, and knew nothing about the suit; my brother-in-law lives in the State of Iowa, and I know nothing more about his business than I do yours; he is a man that keeps his business strictly to himself.

C. Q. 108. You have again evaded my question. Do you not think it strange that this conversation with Getman

4169–4174 should have so impressed itself upon your mind that you are now able to repeat it word for word?

A. I have no different answer to make than what I have. I have answered as well as I could.

C. Q. 109. Question repeated. Please answer yes or no.

A. Yes or no. I have no different answer to make from what I have.

C. Q. 110. Do you refuse to make any other answer than you have already made?

A. I do.

4175 (Questions 109 and 110 read to the witness.)

4176 The witness states that in answer to the question asking if he did not think it strange that the conversation with Getman should have impressed itself upon his mind so that he is now able to repeat it he does not think it strange for the reason that he was reminded at that time to remember it.

C. Q. 111. I thank you for the frank answer that you have at last given, and will ask you one more question, which, if you will answer with equal frankness, will close this cross-examination. Have you ever heard any other conversation, from the time you were born until the present time, of equal length with the conversation with Getman that you can now repeat word for word? If so, please to do so.

A. What conversation do you refer to?

4177–4179 C. Q. 112. I refer to any conversation you ever had in your life.

A. No conversation that I desire to give.

Cross-examination closed.

5.45 o'clock p. m.—Examination of this witness closed.

(Signed) WM. E. HUNT.

Subscribed and sworn before me this 15th day of April, 1881.

[L. S.] (Signed) M. STANLEY BIERCE,
Notary Public.

4180 WEDNESDAY, *April 20th*, 1881—10 o'clock a. m.

Convened pursuant to adjournment.

Present: George L. Waters, Esq., for complainant; Irving H. Palmer, Esq., for defendant.

Mrs. ELIZABETH SHORT, being called for the defendant and cautioned and sworn to tell the truth, the whole truth, and nothing but the truth, testified as follows:

Q. 1. What is your name, age, occupation, and place of residence?

A. Mrs. Elizabeth Short; aged 30 years next month; I am a fa-mer, and reside in Homer.

Q. 2. Did you formerly live in the town of Preble; and, if so, when—from what time to what time?

A. Yes, sir; I moved there when I was five years old and left there March 1st, 1881, and moved to where I now reside.

4181 Q. 3. What was your father's name and your maiden name?

A. My father's name was Thomas H. Perry; mine was Elizabeth Perry.

Q. 4. Did your father in the year 1859 live in the house where James B. Share resided in the year 1880, on a part of what used to be the William E. Tallman farm, in Preble?

A. Yes, sir.

Q. 5. Did you know William E. Tallman in his lifetime?

A. Yes, sir.

Q. 6. Did your father work for William E. Tallman on his farm in 1859?

A. Yes, sir; I think he did.

Q. 7. Do you remember that a well was made some fifty or sixty rods east of the north and south road leading to Preble village, and about the same distance north of the east and west road on the William E. Tallman farm? If so, please give the date as near as you are able, and your age at that time.

4182 A. I remember the well being there, but as to the date I do not remember; I was eight years old at that time.

Q. 8. Was that the same well at which the windmill was erected?

A. Yes, sir.

Q. 9. Mrs. Short, what is the age of your youngest child?

A. Four months.

Q. 10. Did you at this time you have mentioned in answer to question 7 see some workmen engaged in driving an iron gas pipe in the bottom of the dug well at which the windmill was afterwards erected?

4183 A. Yes, sir.

Q. 11. Who were engaged at that work? Please name the persons so engaged, or as many of them as you are able.

A. My father, Thomas H. Perry, James Wickham, and I think there was a Mr. Getman there at the time; these I knew; there were others there that I did not.

Q. 12. Was Mr. William E. Tallman there?

A. I think he was.

Q. 13. How came you to be at the well?

A. My father called for me to bring him some drink, and I went there to carry it.

Q. 14. Did you look into the well at that time?

A. Yes, sir.

Q. 15. Was it stoned up?

A. I think it was.

Q. 16. Was there any water in it in sight?

A. No, sir.

4184 Q. 17. Did you see any pipe which was then being driven into the earth at the bottom of this well? If so, about how far did it extend upwards from the bottom of the well when you saw it, and what kind of a pipe was in it?

A. I saw them driving a pipe—an iron gas pipe. I should think it was about as high as my head from the bottom of the well; five feet nearly.

Q. 18. Before you carried the water did you see your father and others engaged at the well doing anything; if so, what did you see them doing?

A. They were preparing to drive the pipe—getting things ready to drive with.

Q. 19. What instrument was used in driving?

A. An iron mallet or maul.

Q. 20. Do you remember whether or not a scantling was held
upon the end of the pipe while it was being driven?
4185 & 4186 A. I do not.
Q. 21. Did you see any scantling there at the well?
A. I do not remember of any.

Q. 22. While you were at this well did you hear anything said by the persons engaged in driving it as to how they proposed or intended to use this pipe in obtaining water, and as to whether or not they intended to attach a pump to it? Please state fully all you
heard about these subjects.
4187 A. All that I heard them say was that they expected to
get water by driving this pipe in the bottom of this well. I heard nothing about the pump.

Q. 23. When you were at the well was a man standing on the bottom of the dug well; and, if so, does that fact enable you to remember with greater certainty that there was no water in the well
at that time?
4188 A. Yes, sir.
Q. 24. Did you learn from your father that the pipe had been driven to the required depth and water procured by means of a pump attached to the pipe?

A. Yes, sir.

Q. 25. What season of the year was it when this pipe was driven, as you have testified?

A. It was summer.

Direct examination closed.

11.20 O'CLOCK A. M.

Cross-examination:

C. Q. 26. How long have you been married?

A. Eight years last November.

C. Q. 27. You have answered that you are a farmer. Do you
4189 mean by that you live with and keep house for your husband,
who is a farmer?

A. Yes, sir.

C. Q. 28. Do you own any real estate?

A. No, sir.

C. Q. 29. Does your husband?

A. No, sir.

C. Q. 30. Whose farm does he occupy?

A. George Phillips', of Homer.

C. Q. 31. How large a farm—about?

A. I think there is about 80 acres.

C. Q. 32. How long has he occupied that?

A. Since March 1st, 1881.

C. Q. 33. Previous to that time what has been his business since you were married?

A. Farming.

C. Q. 34. Where?

A. In Preble.

C. Q. 35. Whose farms has he occupied?

4190 A. Moses Tallman's and Susan Squires'.

C. Q. 36. Who is Susan Squires?

A. She is Mrs. Moses Tallman's sister.

C. Q. 37. And have you lived ever since you were married
4191 upon the farms of Moses Tallman and his wife's sister up till
March 1st, 1881?

A. No, sir; we have not lived upon the farm, but we worked the farm of Moses Tallman all but one year.

C. Q. 38. Is your husband a wealthy man or a poor man?

A. Neither.

C. Q. 39. About how much is he worth?

A. I could not tell you.

C. Q. 40. Have you no idea?

A. No, sir; his property is in live stock, and I have no idea what he is worth.

C. Q. 41. Is it the live stock which you keep on this farm which you now occupy?

A. Yes, sir.

C. Q. 42. Have you a good memory?

A. Very good.

C. Q. 43. Is your memory such that you can remember conversations, word for word, which occurred many years ago?

4192 A. I can remember about the well, because there was great excitement then about it.

C. Q. 44. Please observe my question, Mrs. Short, and answer that. Question repeated.

A. Yes, sir.

C. Q. 45. How do you remember that you saw what you have stated on your direct examination at this well in the year 1859?

A. I remember its being the year of the camp-meeting.

C. Q. 46. Was it before or after the camp-meeting?

A. I think it was before.

C. Q. 47. About how long before?

A. I could not say as to the time before; not a great while.

C. Q. 48. What makes you think it was before the camp-meeting?

A. Because the people used to come up from the camp ground—up to the well.

12 o'clock m.—Proceedings adjourned until 1.30 o'clock p. m. at this place.

4193 1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of the witness, ELIZABETH SHORT, resumed:

C. Q. 49. You state, in your last answer, that this scene which you have described at the well occurred before the camp-meeting, "because the people used to come up from the camp ground up to the well." Was there not a well there before the time when you saw the pipe, as you have described?

A. There was a well there, but no windmill attached, if I remember aright.

C. Q. 50. What makes you remember that the camp-meeting occurred there in 1859?

A. Because the camp-meeting was the year I was eight years old.

C. Q. 51. How do you remember that you saw this driven the same year as the camp-meeting?

4194 A. Because I did not go to school that summer that they drove the well; it was the same summer as this camp-meeting.

C. Q. 52. How do you remember that you did not go to school that summer?

A. Mother was sick, and I staid at home to take care of the baby.

C. Q. 53. You have given several occurrences, such as your mother being sick, your not going to school, and your being eight years old and the camp-meeting, occurring in 1859. How are these events connected, so as to enable you to fix the time when this well scene occurred—the season of 1859?

A. It was two years before my mother's death, and she was sick from that time until she died, which makes me remember it.

C. Q. 54. I think you do not quite understand my question. What I want to know is how you fix this occurrence at the well as being the year when you were eight years old, the year the camp-meeting was, and two years before your mother's death.

4195 A. It was the first summer that I staid from school at all. I never went to school from that summer until 1861.

C. Q. 55. How do you remember that it was the first summer that you staid from school?

A. By my being sick when school began. Mother was taken sick afterwards so that I could not go.

C. Q. 56. All of the events which you relate are entirely disconnected with the occurrence at the well. Can you give any other reason why you remember that this occurred in 1859?

A. No; I do not think of any.

C. Q. 57. Can you tell other than you have how the occurrence at the well and the events which you have related are connected?

A. I do not think I can.

C. Q. 58. Is your father living or dead?

A. Living, the last that I knew.

C. Q. 59. Where does he live?

A. Michigan.

C. Q. 60. What is his post-office address? Give his name and address.

4196 A. Thomas H. Perry, Vernon station, Shiawassee Co., Michigan.

C. Q. 61. When did your mother die?

A. In the summer of 1861.

C. Q. 62. Where did you live in 1859?

A. I lived in William Tallman's house, on the west side of his farm, where James Share now lives.

C. Q. 63. Who occupied the farm of William E. Tallman, where the well was that season?

A. Ezekiah Klock, I believe.

C. Q. 64. Where did he live?

A. In the same house with William Tallman, on his farm near the mills. He occupied the north part of the house and Tallman the south part; Mr. Stanton lives there now.

C. Q. 65. What day of the week was it that this occurrence at the well took place?

A. I do not remember.

C. Q. 66. What month was it?

A. I cannot remember. It was warm weather. That is the extent of my remembrance about the month.

C. Q. 67. Was it in the forenoon or in the afternoon?

4197 A. I think it was in the forenoon that I was there.

C. Q. 68. About what time?

A. Just before dinner.

C. Q. 69. How do you remember that? Did your father go home with you to his dinner?

A. No, sir; mother called me to come home and help her get dinner.

C. Q. 70. How long were you at the well?

A. It was quite a little while I stood there; I could not tell as to the minutes; it was half an hour, perhaps.

C. Q. 71. How far was your house from the well?

A. Between 50 and 60 rods, I should think; it was across one lot.

C. Q. 72. What were you doing when your father called to you that he wanted some water?

A. I was in the orchard playing with the smaller children.

C. Q. 73. What children?

A. My sisters.

C. Q. 74. You have sworn, in answer to question 43, that your memory is such that you can remember conversations, word 4198 for word, which occurred many years ago; what were the words of your father when he called to you for the water?

A. He called, "Lib, bring us some water."

C. Q. 75. How far was the orchard from the well?

A. It was about the same distance as the house; it was a little northeast of the house.

C. Q. 76. What was your reply to him? Give your exact words.

A. "I will."

C. Q 77. What did you do next?

A. Went to the house, got a pail, went to the well, and got some water and carried it down there.

C. Q. 78. Did you carry any other dish but the pail?

A. No, sir; they drank out of the pail.

C. Q. 79. What kind of a pail was it?

A. A five-quart tin pail.

C. Q. 80. Did you have any conversation with your mother when you went to the house for water? If so, please to give the exact words.

4199 A. I said, "Ma, pa wants some water." She said, "Take the five-quart pail and carry him some.

C. Q. 82. Did your sisters remain in the orchard while you were gone?

A. Yes, sir; they were swinging while I was gone.

C. Q. 83. As you left them to go for the water what did you say to them, if anything? Please give the exact words.

A. "You can swing; I have got to go and carry some water."

C. Q. 84. When you got to the well who spoke first?

A. Father.

C. Q. 85. Please give his exact words.

A. "Hand it here; I am as dry as a fish."

C. Q. 86. Where was he?

A. He stood by the well.

C. Q. 87. What was he doing?

A. Holding his hands on his hips.

C. Q. 88. What did you reply to him?

A. "Here it is."

C. Q. 89. Who spoke next?

4200 A. I do not remember.

C. Q. 90. Who spoke next that you do remember?

A. Mr. Wickham took me by the arm and said, "Let's put her in there."

C. Q. 91. What next was said and by whom? Please give the exact words.

A. I told him to stop, and father said, "Well, go to the house, then."

C. Q. 92. What did you reply to that?

A. I told him I would, and started.

C. Q. 93. What next?

A. About half way to the house mother stepped to the door and called me to help her.

C. Q. 94. What were her exact words?

A. "Lib, come and help me get dinner."

C. Q. 95. The time when Mr. Wickham took you by the arm and said, "Let us put her in there," was that as soon as your father had got through drinking?

A. I could not say; I left him drinking and went to the well; I could not say whether he had got through drinking or not.

C. Q. 96. How long was it after you handed him the pail saying, "Here it is?"

4201 A. It was not but a few minutes.

C. Q. 97. About how many minutes, should you think? You say you do not know whether he had finished drinking or not?

A. I should not think it was more than two. I had merely turned around and looked in the well.

C. Q. 98. And did you hand him the pail as soon as you got to the well?

A. Yes, sir.

C. Q. 99. So that you were at the well only from two to three minutes, were you?

A. I was there longer than that, for I waited for them to get through drinking, all of them, and took the pail home with me.

C. Q. 100. You say you gave the pail to your father when you first got there, and, you think, in not to exceed two minutes after Mr. Wickham seized you by the arm, and when he released you you
started home. State, as nearly as you are able, how long it
4202 was from the time you went to the well till you left it for the
house.

A. I cannot say as to the minutes. It was not but a little while—not more than ten minutes, maybe—that I stood there by the well.

C. Q. 101. Do you think it was as much as ten minutes? Please bear in mind in your answer that you have already sworn that you did not think it was over two minutes after you handed the water to your father before Mr. Wickham seized you, and that you had merely time to turn around and look into the well.

4203 A. I think it was as much as that before I went home.

C. Q. 102. What were you doing other than you have testified to during this ten minutes?

A. Looking to see what I could see.

C. Q. 103. Did you look any more after Mr. Wickham released you?

A. Yes; I looked in the well.

C. Q. 104. What did you mean, then, when you testified that when he released you you started for the house?

A. I did not start immediately, but I started within ten minutes for home from the time that I give father the pail.

4204 C. Q. 105. Did you start immediately after Wickham released you?

A. No, sir.

C. Q. 106. How long after?

A. I could not say exactly in minutes; not but a few, though; they had not begun work again when I started for the house.

C. Q. 107. So that while you were there there was no work done. Is this so?

A. Yes, sir.

C. Q. 108. Then, as I understand you, you have given all that was said while you were there. Is this so?

A. All that I remember of that was said to me.

C. Q. 109. Do you remember anything that was said to any other person?

A. No; they were talking, but I paid no attention.

C. Q. 110. And you do not remember either their exact words nor the substance of anything they said, do you?

A. No, sir.

C. Q. 111. You say you looked in the well. What did you see in there?

4205 A. I saw the pipe that they were driving.

C. Q. 112. Anything else?

A. There was a man down in the well, but what he was there for I do not know.

C. Q. 113. Who was it?

A. I do not remember his name—a stranger.

C. Q. 114. It was not Mr. Getman nor Mr. Tallman, was it?

A. No, sir.

C. Q. 115. What was the man in the well doing, if anything?

A. Nothing when I looked in.

C. Q. 116. Was there any ladder in the well?

A. I think there was.

C. Q. 117. Please describe it.

A. A common ladder, which stood up side of the well.

C. Q. 118. Could you see the bottom of the well?

A. I think I did.

C. Q. 119. Will you swear you did?

A. Not positively. I do not remember exactly as to that.

4206 C. Q. 120. You say in answer to question 107 that no work was done while you were at the well. You say in answer to question 17 that "I saw them driving a pipe—an iron gas pipe." Please explain these two answers, Mrs. Short. Do you mean by them simply that they were at work at the well; that you saw the pipe in the well, and you suppose from that that they were driving it?

A. Yes, sir.

C. Q. 121. You have no personal knowledge, have you, that they did drive the pipe at all; I mean did you see them drive the pipe at all?

A. Only from the house; as I was going from the house down I saw them pounding there at the well—driving down something; I supposed it was the pipe.

C. Q. 122. You cannot swear that they were driving the pipe, can you?

4207 A. I cannot say that I saw them strike the pipe, but all that was in sight to see that they were pounding was the pipe.

C. Q. 123. Fow how great a distance from the well could you thus see the pipe that they were pounding?

A. I could not say about the distance; I have not much of an eye for measuring distances.

C. Q. 124. Estimate as nearly as you are able, remembering that you have testified that it was from 50 to 60 rods from the well to the house.

A. I could not tell nothing of the distance.

C. Q. 125. Do you think it was half way between the orchard and the well?

A. It might have been; I could not say positively.

4208–4210 C. Q. 126. Is it your best judgment that it was about half way?

4211 Complainants' counsel states that he here withdraws question 126.

C. Q. 127. You have stated that all that was in sight "that they

were pounding on was the pipe," and that it might have been
4212 about half way between the orchard and the well; that you could see the pipe that they were pounding on. Is it your best judgment that it was about half way?

4213 (Question 129 read to the witness.)

Complainants' counsel here states that he withdraws question 129.

C. Q. 130. Mrs. Short, did you understand the last question?

A. Not fully.

C. Q. 131. You have stated that all that was in sight "that they were pounding on was the pipe;" that you saw them pounding as you went from the house to the well; that it might have been half way from the orchard to the well that you could thus see the pipe on which they were pounding. Is it your best judgment that you could thus see the pipe when about half way between the orchard and the well? Please to answer directly.

4214 A. They were pounding on something, but whether it was the pipe or not I could not positively say; yet that was all that I could see when I got to the well that they might have pounded on was the pipe.

C. Q. 132. Could a man stand upon the ground outside of the well and just at the edge and reach up high enough to pound upon the end of the pipe, or would he have to stand upon something in order to be high enough to strike on the pipe?

4215 & 4216 A. I think he stood on the ground.

C. Q. 133. And did the pipe when standing in the well when you were there come up above the top of the well about five feet; if not, about how far did it?

4217 Cross-examination closed.

Examination of this witness closed, 5.15 o'clock p. m.

4218 (Signed) Mrs. ELIZABETH SHORT.

Subscribed and sworn before me this 20th day of April, 1881.

[L. S.] (Signed) M. STANLEY BIERCE,
Notary Public.

Proceedings adjourned until Thursday, April 21st, 1881, at 10 o'clock a. m., at this place.

THURSDAY, *April* 21*st*, 1881—10 o'clock p. m.

Convened pursuant to adjournment.

Present: George L. Waters, Esq., for complainants; Irving H. Palmer, Esq., for defendant.

Defendant's counsel asks that the proceedings herein be held open for the arrival of a witness.

Proceedings held open.

4219 1.30 O'CLOCK P. M.

Present: As before.

RICHARD EGBERTSON, being called for the defendant and cautioned and sworn to tell the truth, the whole truth, and nothing but the truth, testified as follows:

Q. 1. What is your name, age, occupation, and place of residence?

A. My name is Richard Egbertson; aged 54 years; I am a farmer, and reside in Preble.

Q. 2. Do you recollect observing a windmill erected at the well on William E. Tallman's premises in the summer of 1859?

A. I do; that is the year that camp-meeting was that I have reference to.

Q. 3. Do you mean the camp-meeting which was held on Moses T. Tallman's farm?

A. Yes, sir.

Q. 4. Was there ever more than one camp-meeting held
4220 there or in Preble, to your knowledge, information, or belief?

A. No, sir; there was not.

Q. 5. Was this windmill erected before or after this camp-meeting?

A. It was before the camp-meeting that I saw it.

Q. 6. Do you know Thomas J. Getman, of Preble? If you know him for how long a period have you known him?

A. I know him and have known him for ten or twelve years, more or less.

Q. 7. Did you have a conversation with Thomas J. Getman in which he stated in substance that he and his father dug the well (meaning the Tallman well, at which the windmill was erected); that it afterwards became dry, and he and William E. Tallman drove the pipe (meaning the perforated iron gas pipe introduced as an exhibit in this case) and obtained water therefrom by means of a pump, or that in substance? Please give the conversation in full.

4221 A. I had a conversation with him last May—the 26th day of May. He was at work for me. We talked about this well. He said he and his father dug it. He said it became dry and he and Mr. Tallman put in a pipe—drove a pipe; he did not say as regards a perforated pipe. They drove a pipe and got water. He said that was the year of the camp-meeting.

Direct examination closed.

4222 2.10 O'CLOCK P. M.

Cross-examination:

C. Q. 8. Are you any relation, either by blood or marriage, to Moses T. Tallman, Calvin Haynes, or Perry Haynes?

A. Not that I know of; no, sir.

C. Q. 9. To whom did you first divulge the fact that you had had such a conversation with Getman?

A. I do not know as I could state.

C. Q. 10. Give the name of the first person that you remember that you did divulge it to.

A. I do not know as I could tell. There was a good — of talk at different places.

C. Q. 11. Did you ever relate the conversation to any one until you related it to the notary on your direct examination here?

A. I think I have.

C. Q. 12. To whom, and for what object?

A. I do not know that I had any object either way. We
4223 were talking one way and another in regard to this and I
think I have related it—what he told me at my house.

C. Q. 13. To whom?

A. I think Mr. John Klock was present, and there might have been others present. I think there was.

C. Q. 14. Can you give the name of any other person to whom you related it before your examination on your direct?

A. I think that Eben Daley was present; I think Mr. Keach; I will not be certain; that is all that I could think of now; still there might have been others present.

C. Q. 15. By Mr. Keach do you mean Mr. Calvin E. Keach, the lawyer who took testimony for the defendants in the driven-well cases at Preble?

A. That is the man that I have reference to.

C. Q. 16. You have been examined here to-day on your direct examination by Irving H. Palmer, Esq., have you not?

A. Yes, sir.

4224 C. Q. 17. John W. Suggett, Esq., has been present in the
room, has he not, and in whispered consultation with Mr.
Palmer during your examination on the direct?

A. I suppose that he was in the room; I suppose that was John W. Suggett. I heard them whispering something, but did not see them, my attention being turned another way; but I think it was after my direct examination was closed; I think so.

C. Q. 18. You have stated that you have given the names of all the persons that you can remember to whom you have related this conversation with Getman. Did you not consider it rather singular that Mr. Palmer should put you upon the stand before asking you to relate to him the conversation which you have testified to?

A. I thought you had reference to that time at which this conversation was given.

4225 C. Q. 19. Do you mean by your last answer the time at
which the conversation with Getman occurred?

A. This conversation was not at the time that Getman and I had a talk; it was last winter that I had reference to.

C. Q. 20. Your answer I do not understand. What I want to know is, did you not think it strange that Mr. Palmer should put you upon the stand without asking you to relate the conversation which you have testified to? Please answer yes or no.

Complainants' counsel withdraws question 20.

4226 C. Q. 21. You have been sworn before, have you not, Mr. Egbertson?

A. Do you mean in any case?

C. Q. 22. I do.

A. I have.

C. Q. 23. You know the nature of an oath, do you not?

A. I suppose I do.

C. Q. 24. Did you ask the counsel for the defendant to instruct you as to what your answer might or might not be?

A. No, sir.

C. Q. 25. Did he voluntarily and without being asked by anybody deliver himself of the wise instructions following question 20 as to what your answer might or might not be?

A. I do not know that he did; he did not ask me, not if I
4227 understand the question aright; I do not know that any one
said anything to him.

C. Q. 26. Question 20 repeated.

A. I do not say that he and I did not have any talk. I thought your question had reference to the time I was speaking of. You did not ask me if Mr. Palmer and I had any conversation.

C. Q. 27. I asked you, "Can you give the name of any other person to whom you related it before your examination on your direct?" That we may not misunderstand each other, I repeat the question.

A. Mr. Palmer, I understand you now; I had reference, and I supposed you had, to that time.

C. Q. 28. Have you now given all the names that you can remember?

A. I think the gentleman whom you call Mr. Suggett was present.

C. Q. 29. Is that all?

A. I think it is.

C. Q. 30. Who subpœnaed you?

A. I received a telegram.

C. Q. 31. From whom?

A. I think it was Mr. Palmer.

4228 C. Q. 32. When?

A. Last night at nearly nine o'clock.

C. Q. 33. Have you not been here before to-day to be sworn as a witness in this case?

A. No, sir.

C. Q. 34. Were you present here at the time Perry Haynes was being sworn?

A. I was down with him. I rode down with him that day.

C. Q. 35. What for?

A. I had some business here to do.

C. Q. 36. Did you not hold a consultation with Palmer that day?

A. I do not recollect of anything in particular. I do not know but what I talked with him on some business that I had. I was down on some business of my own.

C. Q. 37. Did you talk with Haynes about what you knew of the case, and tell him about this conversation?

A. I think I did not, about this conversation.

C. Q. 38. Did Haynes tell you that he was coming here to be sworn?

4229 A. Well, I had some business here and at Homer, and when we got about half way down he told me what his business was down here. Then I says to him, "If I had known that was your business I would not have rode down with you."

C. Q. 39. Are you an associate of Perry Haynes?

A. No more than any neighbor.

C. Q. 40. Why would you not have rode with him if you had known that his business here was to be sworn for the defendant in this case?

A. Because I reckoned he would be here all day and perhaps longer, and I was in a hurry to do my business and get home. I intended to have got back by one or two o'clock, at least.

C. Q. 41. How long after you had thus rode with defendant's other witness, and thus been to the place where he was being sworn, was it that it came to your knowledge that Mr. Palmer wished to use you, too, as a witness?

4230 A. Do you mean how long after I saw Haynes?

C. Q. 42. Please observe the question and you will see my meaning, I think.

Question repeated.

A. Haynes spoke about it afterwards, I think, and said they had got my name here.

C. Q. 43. Do you know how they got your name?

A. I do not.

C. Q. 44. Have you been sick considerable in your life?

A. No; I cannot say that I have; still my health is not good—not as good as it used to be.

C. Q. 45. Is it not true that your memory is considerably impaired?

A. I do not think it is.

C. Q. 46. Is it not true that your ill health has to a considerable extent impaired your mental faculties, so that your mind becomes easily tired?

A. I think not.

C. Q. 47. Do you consider your memory good?

A. I think I do.

4231 C. Q. 48. Is it so good that for a great length of time you can remember conversations word for word?

A. Well, as much so as the general run of people, I think.

C. Q. 49. Without testifying as to "the general run," please answer as to yourself.

Question 48 repeated.

A. Well, I might not remember every word, perhaps.

C. Q. 50. Do you swear that you have given the conversation with Mr. Getman word for word?

A. I think I do; that I have, at least.

C. Q. 51. And just as it occurred?

A. I think I have.

C. Q. 52. Do you swear that you have?

A. I do.

C. Q. 53. And do you swear that you have not left out a word nor a sentence that he uttered at that time?

A. Well, there might have been a word or two that was said, but this was the substance of it, as near as I can tell you.

C. Q. 54. You have sworn that you have given the conversa-
4232 tion with Mr. Getman word for word and just as it occurred.
Do you still adhere to that statement?

A. I do, as near as I can recollect.

C. Q. 55. Do you swear that you can recollect the conversation word for word, & just as it occurred?

A. I think I do.

C. Q. 56. Do you so swear?

A. Yes; I do swear so.

C. Q. 57. Did you put the conversation down in writing?

A. No, sir.

C. Q. 58. Did you make any written memoranda of it?

A. Nothing, only in the diary of the day—the day that he was there at work; that is all.

C. Q. 59. Did you mention the conversation in the diary?

A. No, sir.

C. Q. 60. What was he doing that day for you?

A. Carpenter.

C. Q. 61. Did anybody hear the conversation but you?

A. My wife heard part of it; heard us talking about it; we
4233 were in the house and she was getting tea.

C. Q. 62. Who commenced the conversation about the well?

A. I think he did.

C. Q. 63. Give his exact words.

A. I think I have in regard to this matter.

C. Q. 64. Please do so again.

A. In regard to what he said about the well?

C. Q. 65. I mean that conversation in regard to the well; and I wish you to put yourself in his place, speaking his exact words, which you say you remember.

A. He said he and his father dug the well. The well got dry and he and Tallman drove the pipe or put the pipe in; I think they said drove it, and got water. That was the summer of the camp-meeting. I guess that is about the substance. He talked more
about the camp-meeting; I think he said he had a victual-
4234 ing stand there, but that was the substance in regard to the
well.

C. Q. 66. Have you given his exact words now as to the well?

A. I think I have.

C. Q. 67. Do you swear you have?

A. Yes; I do.

C. Q. 68. Who did you understand that he meant by "he" when he said "he and his father dug the well?"

A. Why, himself.

C. Q. 69. Did you not think it strange that he should speak of himself as "he"?

A. Well, he might have said "I and my father."

C. Q. 70. You have sworn two or three times unequivocally that you have given his exact words; what do you say now?

A. I say I have.

C. Q. 71. You have sworn positively that he said "he and Tallman drove the pipe or put the pipe in." Who did he mean by "he?"

A. Well, he meant himself. I was telling what he said. If I had been in his place I should have said "I," "myself."

4235 C. Q. 72. As you seem to be somewhat mixed I will give you an opportunity to right yourself. Please to put yourself in his place, using his exact words (which you say you remember), and give this conversation in regard to the well.

A. I and my father dug the well; the well became dry; I and Bill Tallman put in the pipe or drove the pipe and got water; that was the year of the camp-meeting.

C. Q. 73. Have you now given all that he said on that occasion about the well?

A. I think I have.

C. Q. 74. Do you swear that you have?

A. I do.

C. Q. 75. You state that he said "I and Bill Tallman put in the pipe or drove the pipe." Do you mean that you cannot remember whether Getman said that they "put in the pipe," or whether
4236 he used the expression "drove the pipe?"

A. I could not say whether he said "drove it" or "put it in;" I could not state positively in regard to that.

C. Q. 76. Then, as I understand you, Mr. Egbertson, you do not mean to testify positively that he told you on that occasion that the pipe was driven. Is this so?

A. Well, as I say, he used one or the other of those expressions, and I could not say positively which one he used.

Cross-examination closed.

4.10 O'CLOCK P. M.

Redirect examination:

R. D. Q. 77. Did you have a subsequent conversation with Thomas J. Getman, since or about the time he was examined in this
4237 suit, with reference to this well, in which he changed his former statement which you have here given and claimed the pipe was only driven a few inches for the purpose of steadying it? If so, please give that conversation.

A. He said, at the hotel, some two weeks ago, perhaps, or about two weeks, as we were talking about this pipe business—the well. I asked him a question in regard to this point. I asked him what was the object of having the end closed up and holes in it if it was not driven in the ground but only hung in the water. He
4238 said that the pipe was drove into the ground a little in order to steady it. I think he said five or six inches.

R. D. Q. 78. When did you first see a driven well to your knowledge and where was it? Please state the circumstances.

A. It was in Preble, on what we call the Ham farm. It was in the cellar, near the stairs which went down cellar on the inside. I went in for a drink of water and I heard they had a driven well in there and wanted to see it. I went in from the outside. I think it was in 1863; it might have been 1862 & it might have been 1864; I cannot exactly tell as to that.

4239–4253 R. D. Q. 79. Can you not give the date more definitely?

A. I would not want to now.

Redirect examination closed.

4 O'CLOCK P. M.

Examination of this witness closed.

(Signed) R. EGBERTSON.

Subscribed and sworn to before me this 21st day of April, 1881.

[L. S.] (Signed) M. STANLEY BIERCE,
Notary Public.

4254 ROBERT COWIN called as a witness for the defendants, who, being duly cautioned and sworn, deposes as follows:

Q. 1. What is your name, age, occupation, and place of residence?

4255 A. My name is Robert Cowin; I am 68 years old; I carry on the shoe business; I reside in Preble, Cortland county, New York.

Q. 2. How long have you resided in Preble?

A. I have lived there, with the exception of about 6 years, ever since I was born.

Q. 3. Do you know Thos. J. Getman?

A. Yes, sir.

Q. 4. For how long have you known him?

A. For 30 years.

Q. 5. Do you remember the occasion when a camp-meeting was held on the premises of Moses T. Tallman, in the town of Preble, Cortland county, N. Y.?

A. Yes, sir.

Q. 6. When was that?

A. In September, 1859.

Q. 7. Was there ever more than one camp-meeting held in the town of Preble to your knowledge, information, & belief?

A. I think there was; in the year of about 1852 there was a camp-meeting held about 3 miles north of Preble village; I think that was in Preble town.

4256 Q. 8. Was any other camp-meeting ever held upon the premises of Moses T. Tallman except the one held there in September, 1859.

A. I think not, sir.

Q. 9. Did you attend the camp-meeting held upon the premises of Moses T. Tallman; if so, what was your business at that time? I mean at the camp-meeting.

A. I ran an omnibus from the village of Preble to these grounds and carried passengers.

Q. 10. In doing this did you pass and repass in view of the windmill erected in the pasture of Wm. E. Tallman, situate north of the east and west road and east of the north and south road leading to Preble village?

A. Yes, sir.

Q. 11. When, for the first time, did you see the windmill erected in the place indicated in the above questions?

A. The 1st day of the camp-meeting.

Q. 12. Was it then in operation?

A. Yes, sir.

Q. 13. Did you ever visit the well over which this windmill was erected; if so, when, with reference to the camp-meeting?

4257 A. I visited it the last week of this camp-meeting, in 1859, that I have spoken of.

Q. 14. Did you then look into the well; if so, where was the pump situated and where was the water discharged? Please describe the same.

A. I did look into the well then. The pump was rather on the east side of the well, and the pump was very near the bottom of the well and the water was discharged from the pump toward the west, into a reservoir.

Q. 15. Was there any water in the dug well at that time?

A. It was damp and a little muddy at the bottom of the dug well. I could not call it any water. I should say it was pretty much entirely dry.

Q. 16. Have you heard Thos. J. Getman state in substance that he dug or helped to dig this well in the spring of 1859; that it subsequently became dry, when he helped to dig it deeper, after which it again became dry, when he, Getman, and Wm. E. Tallman
4258 drove a pipe in the bottom of the dug well, attached a pump to the pipe, and procured water therefrom, or anything of that import? Please state what you heard him say on this subject.

A. I heard him say that he helped dig the well. He said it failed & Mr. Wm. E. Tallman came after him during this camp-meeting to dig it deeper and after the camp-meeting he did go and dig it deeper. He said he helped Wm. E. Tallman drive the pipe. He said he drove the pipe and Mr. Tallman held a scantling upon it for him to drive on.

Q. 17. About when did Mr. Getman make these statements you have detailed, where was it, & who was present?

A. It was last fall. He made it once in my shop in Preble village, & I have heard him make these statements in the hotel at Preble village. Calvin Haynes & Richard Egbertson were present at one time. There were others in there. I heard him tell
4259 it once in front of the P. O. in Preble village, and Jno. Wilbur & Amasa Aldrich were present at that time.

Cross-examination by GEO. L. WATERS, of counsel for complainants:

Q. 18. In relating the conversation which you say you had with Mr. Getman—do you pretend to give his exact words or merely the substance of the conversation?

A. In part they are his words exact. As to Tallman's coming to the camp ground & his digging the well deeper were his exact words. I have given it as I remember it. I give very near his exact words.

Q. 19. Please state the exact words, putting yourself in his place.

A. "I dug the well deeper;" "I helped Mr. Tallman dig the well deeper and helped stone it;" "I helped Mr. Tallman drive it; he held the scantling & I drove the pipe." That is about all I heard him say about it that I now remember.

Q. 20. He did not tell you how far he drove it, did he?

A. No, sir.

4260 Q. 21. He did not tell you when he drove it, did he?

A. No, sir.

(S'g'd) ROBERT COWIN.

Subscribed & sworn to before me April 27, 1881.

[L. S.] (S'g'd) DORR C. SMITH,
Notary Public.

4261 OFFICE OF DORR C. SMITH,
APRIL 29, 1881—at 11 o'clock a. m.

Complainants appear by Geo. L. Waters, Esq., their counsel, and the defendant appears by his counsel, Irving H. Palmer. It is conceeded by complainants' counsel that defendant may now call and examine John H. Klock as a witness in this suit.

JOHN H. KLOCK, being duly cautioned and sworn, deposes and testifies as follows, to wit:

Ques. 1. What is your name, age, occupation, and place of residence?

A. John H. Klock; I am 60 years old, & was last December; I am a hotel-keeper at Preble, Cortland Co., N. Y.; I reside in the town of Preble, Cortland Co., N. Y.

Q. 2. Where did you reside in September, 1859?

A. I lived in Christian Hollow, town of Tully, Onondaga Co., N. Y.

Q. 3. How far is that from Preble village?

A. Eight miles.

4262 Q. 4. Did you attend a camp-meeting held upon the premises of Moses T. Tallman, in the town of Preble, in September, 1859?

A. I did, one day.

Q. 5. Did you at the time of attending this camp-meeting observe that a windmill had been erected in the pasture of William E. Tallman, situate north of the east and west road and east of the north and south road leading to Preble village?

A. Yes, sir; I saw a windmill over there.

Q. 6. Was it in operation at the time you saw it?

A. I saw the wings of the windmill going around; it was in motion.

Q. 7. Is Ezekiah Klock, of Forestville, Maryland, your brother?

A. Yes, sir.

Q. 8. Have you seen him write and know his handwriting?

4263 Letter dated "Forestville, March 5th, 1880," addressed to "Mr. John W. Suggett, Cortland, N. Y.," and signed "E. Klock" and marked "Exhibit A, April 29th, A. D. 1881, Dorr C. Smith, notary public," shown witness.

Q. 9. In whose handwriting is that letter and the signature subscribed thereto?

A. It is my brother Ezekiah Klock's handwriting.

Letter offered in evidence by defendant's counsel.

Letter received in evidence and marked as above, subject to the objection made.

Q. 10. Where did Ezekiah Klock reside at the date of the letter shown you, March 5, 1880?

A. He lived at Forestville, Md.

4264–4268 (S'g'd) J. H. KLOCK.

Subscribed and sworn to before me April 29, A. D. 1881.

[L. S.] (S'g'd) DORR C. SMITH,
Notary Public.

4269 Exhibit A. April 29th, A. D. 1881. (Signed) Dorr C. Smith, Notary Public.

Forestville, *March 5th*, 1880.

Mr. John W. Suggett, Cortland, N. Y.

Dear Sir: I receiv-d your letter. You wanted to know the year that I took possession of William Tallman's farm; it was in March 13th, in 1860; the win-mill pump was in the well when I went on the farm, and there was no change made in the pump or well while I lived on the farm that I remember of; and as for that extra sheet of paper you wanted me to make those answers to it, was not in your letter; if it had of been I would *of* answered them.

Yours, etc., E. KLOCK.

4270 Department of the Interior,
United States Patent Office.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the bound volumes of the library of this office of an article entitled "Boring Wells," said copy to be found of a volume entitled "Mechanics' Magazine," vol. 2, published by Knight & Lacey, London, 1824.

In testimony whereof I, V. D. Stockbridge, acting Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this fifth day of May, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[L. S.] (Signed) V. D. STOCKBRIDGE,
Acting Commissioner.

4271 *Mechanics' Magazine, Vol. II.*

Published by Knight & Lacy, London, 1824.

Article on "Boring Wells," page 60.

Boring Wells.

(Answer to question 2.)

LEEDS, *March* 15, 1824.

Drive a cast-iron pipe through the gravel—*i. e.*, by means of a weight hung at the end of the spring pole used in boring—and should the pipe meet with any loose stone to obstruct its passage put the boring rods into the pipe and bore until the stone is broken to pieces or driven sideways; then drive the pipe as before. I have had the management of a great many bore holes for water in this neighbourhood, some above 100 yards deep, and many contrivances I have used on account of difficulties met with in different strata.

I shall be happy to give your correspondent every information
4272 in my power on the subject, and, if agreeable to you, will send
a list of a few holes, stating the different strata gone through and the several springs of water met with.

Yours, &c., T. T.

N. B.—The shell borer must be used at times to bring out the gravel that gets into the pipe, and the pipe must have spigot and faucet joints.

Ex'd: H. M. H., E. A. M.

[Endorsed:] Defendant's Exhibit No. 1, May 7, 1881, (Signed) Dorr C. Smith, notary public.

4273 DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the bound volumes of the library of this office of an article on "Earth Borer," together with the sketch, said copy to be found on page 109 of a volume entitled "Mechanics' Magazine," vol. 3, published by Knight and Lacey, London, 1824–'25.

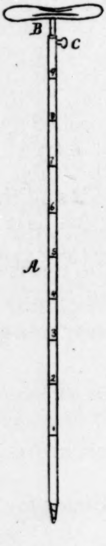
In testimony whereof I, V. D. Stockbridge, acting Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this fifth day of May, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[L. S.] (Signed) V. D. STOCKBRIDGE,
Acting Commissioner.

Mechanics Magazine.
Vol 3. 1825-1826. Page 109.

Mechanics Magazine,

Vol. 3. 1824-1825 Page 109.



No 16.
Andrews et al
v
Hovey } p4276.

Defendants Exhibit No. 2.
May 7. 1881.
(Signed) Dorr. C. Smith Notary Public.

4274 *Mechanics' Magazine, Vol. III.*

Publisher by Knight and Lacy, London, 1824–'25.

Article on "Earth Borer," page 109.

Earth Borer.

SIR: The borer, a sketch of which is placed above, has been found useful in ascertaining the nature of the soil for the foundations for masonry in the formation of quay walls and piers at Bridgeport harbour. A is a tube about ten feet long, formed of old gun barrels firmly soldered; D an iron rod fitted to the tube and fixed in handles similar to those of an auger, the point of the rod projecting almost two inches below the end of the tube; C a screw which, turned by the thumb and finger, keeps the rod in its proper place. The instrument is bored into the loose sand or soil to any depth within its
length, which depth is shown by the scale marked on the
4275–4278 tube. The screw is then loosened and the rod withdrawn
four or five inches and again fixed. The instrument is
then bored to a further depth, and the tube receives a portion of such stratum as it may have perforated, and the instrument, being withdrawn altogether, retains such portion as is forced out for examination by restoring the rod to its original position. I am not aware that this simple invention has the merit of originality, but if it has not it may, through the medium of your useful publication, become more generally known.

I am, sir, &c., E. NICHOLETTS.
Bridgeport, Sept. 20, 1824.

Ex'd: H. M. H., E. A. M.

(Here follows diagram marked p. 4276.)

4279 In Circuit Court of the United States for the District of Iowa.

WM. D. ANDREWS *et al.* *vs.* GEO. LELAND.

In pursuance of the annexed notice I did, on the 20th day of May, 1881, at the office of Lake and Harmon, at the city of Independence, Iowa, proceed to take the depositions of the witnesses named in said notice, to be used in the above-entitled cause.

A. R. West, of the firm of Rickel, West and Eastman, was present and conducted the examination on behalf of the complainants, and Col. Jed. Lake, of the firm of Lake & Harmon, performed a like *a like* office for respondent.

E. S. HOVEY, being produced, sworn, and examined on the part of the def't, deposes as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is E. S. Hovey; am 57 years of age; reside in Butler Co., Iowa; am a farmer.

Q. 2. Are you the same E. S. Hovey that has been heretofore examined in these drive-well cases?

A. I am.

Q. 3. In that examination you stated that you had made iron tube wells, commonly known as driven wells; now, state when you first commenced making that kind of wells.

A. In October or November, 1867.

Q. 4. Before you made any of those wells did you see any one make them; and, if so, when and where?

A. I did; I helped a man by the name of Balcomb; it was in Sept. or Oct., 1867, on the fair grounds at Waterloo, State of Iowa, in Black Hawk Co.

4280 Q. 5. Now, state fully how that well was made by Balcomb that you say you helped him make.

A. There was a hole about 2 feet in the ground, I should think, when I commenced to help him; we screwed *on* a perforated point onto a piece of pipe about 5 feet long; we drove that down to the ground; then we screwed on another piece of the same length; drove that down until we got on 4 pieces; then we attached the pump, primed it, and pumped water. The water came freely, and there appeared to be an*d* abundant supply.

Q. 6. State whether or not any rod was driven and withdrawn before you put in this pipe to which you attached the pump.

A. There was not.

Q. 7. State how this perforated point was made that you put in the pipe.

A. It had the appearance of being slits — into the pipe; it was what is called a slot point, and the lower end drove to a point and closed up.

4281 Q. 8. When you commenced making these wells state how you made them.

A. By driving the pipe with the same kind of a point attached and afterwards several different kinds of points.

Q. 9. In making these wells that you say you made state whether or not you used any rod that you drove and then withdrew in order to put the pipe down the same hole.

Counsel for respondent desires the court to consider the same reply as heretofore made by them.

A. We never drove any rod except the pipe.

Q. 10. Who worked with you, if any one, the first few years you made this kind of wells?

A. E. A. Hovey and John Sanky.

Q. 11. Where does E. A. Hovey now live?

A. Tampico, Whiteside Co., Illinois.

Q. 12. Is he the same E. A. Hovey who was afterwards one of the firm of Hovey Bros.?

A. He was a member of the firm at the time we commenced to work together; I believe the firm at that time was E. S. and E. A. Hovey and afterwards Hovey Bros.

Q. 13. Where is John Sanky now?

A. Reported dead.

Q. 14. State whether or not, between 1867 and 1871, you knew of any other parties who made this kind of wells.

A. I heard of quite a number; the only one that I knew, that I recollect now, was Mr. Auchampaugh, of Independence, Iowa.

4282 Q. 15. Did you ever see Mr. Auchampaugh make a well? If so, state how he made it.

A. I don't think I ever saw him make one; I saw him at work at one; he appeared to be driving it the same as we did.

Q. 16. State whether or not he drove a rod and withdrew the same.

A. He said he did not; he drove the pipe only.

Q. 17. When was it that you saw Mr. Auchampaugh at work at this well?

A. I think in May or June, 1868.

Direct rests.

4283 (Signed) E. S. HOVEY.

Subscribed in my presence and sworn to before me by the said E. S. Hovey this 20th day of April, 1881.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

Adjourned until 1.30 p. m.

4284 E. A. HOVEY being produced, sworn, and examined on the part of the defense, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is E. A. Hovey; am 48 y'rs of age; reside at Tampico, Whiteside Co., Ill.; am not engaged in any business at present.

Q. 2. Are you the same E. A. Hovey that has been previously examined in these driven-well cases?

A. I am.

Q. 3. When did you first commence to make these iron or tube wells, known as driven wells?

A. In the fall of 1867.

Q. 4. State who worked with you at that time and who showed you how to make this kind of a well?

A. E. S. Hovey worked with me; Mr. Balcomb, of Waterloo, Iowa, helped to put down the first one I ever saw put down, and showed us how to put them down.

Q. 5. When was it that Mr. Balcomb showed you how to put down this well?

A. The latter part of October, 1867.

Q. 6. State now the method he used in making this well; describe it fully.

4285 A. He dug a hole with a spade or shovel, I should think a foot deep and about a foot square; then screwed *on* what is called a slot point onto a piece of tubeing; then he drove that into the ground and screwed on another piece of tubing to drive it to the depth required; then he screwed on what is called a pitcher pump and pumped out the sand and muddy water that come through the slot point; then we dug a hole about 3 foot square and 4 foot deep; we took off the top joint of the pipe and screwed on an anti-freezing pump.

Q. 7. State whether or not in making this well the said Balcomb used any rod or instrument that he drove and then withdrew to make a hole into which the tube was inserted.

A. He did not; he left the same tube that he drove in the first place for the well.

Q. 8. How long did you continue in the business of making these tube or iron wells?

A. 11 or 12 years.

Q. 9. State now how you made these wells for the first two or three years after you commenced.

A. For several months we made them the same as the one described except the screen at the bottom, which was a little different.

Q. 10. State, as nearly as you can, how many wells you made by driving the tube the first thing that was used to draw the water through.

4286 A. I should say from 30 to 100.

Q. 11. Within what time, after you commenced making these wells, was it that you made from 30 to 100 wells in that way?

A. It was several months; something less than a year.

Q. 12. Was you one of the firm first known as E. S. and E. A. Hovey, afterwards known as Hovey Bros.?

A. I was.

Q. 13. Where was it that Mr. Balcomb assisted you in making this first well?

A. On Mr. Cutshall's farm, in Perry t'p, Buchanan Co., Iowa.

Q. 14. During the time you were at work making these wells did you see any other parties making similar wells; if so, who?

A. I did not to be close; saw them at a distance, as near as I remember.

Q. 15. State whether or not you kept this method of making wells a secret or was it practiced openly where all who wished might see it.

A. We did not; it was practiced openly where all might see it who wished.

Direct rests.

By stipulation, solicitors for complainants give the same notice of expunging this witness' testimony and for the same reasons as were given in the case of the witness E. S. Hovey.

Solicitors for respondents make the same reply.

Cross-examination waived.

(Signed) E. A. HOVEY.

Subscribed in my presence and sworn to before me this 20th day of April, 1881.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4287 A. **Hageman**, being produced, sworn, and examined on the part of the def't, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Anton Hageman; am 47 years of age; reside in Buchanan Co., Iowa; am a hotel keeper.

Q. 2. How long have you resided in Buchanan Co., Iowa?

A. 28 years.

Q. 3. Did you at any time know Margaret A. Jordan?

A. Yes.

Q. 4. State whether or not you ever sold or conveyed to her any real estate in Independence, Iowa; if so, state when and what it was you sold her.

A. I sold her my dwelling-house in 1862.

Q. 5. Did you sell her any land with the dwelling-house; if so, what is the description of the land?

A. I sold her the two half lots the house stood on; I don't really know the number of the lots and block; think the lots were 5 and 6, Stoughton and McClure's 1st add. on Walnut street.

4287½ Q. 6. Look at a copy of the deed here shown you and state if that is a copy of the deed you gave to M. A. Jordan of that house and half of two lots.

Paper here shown witness purports to be copy of deed made by Anton Hageman & wife to Margaret A. Jordan for north half of lots 5 and 6, block (9), Stoughton & McClure's 1st add. to Independence, Iowa.

A. That is a copy of the deed, the only deed I ever made to her.

Q. 7. State where M. A. Jordan lived when you made the bargain to sell her this house and the half of two lots.

A. She lived on the west side of the river, one street north of Main St.

Q. 8. State whether any person acted for Mrs. Jordan in making any part of the bargain for this house and these lots; if so, who.

A. Mr. Jacob Rich made the bargain for her.

Q. 9. What business was Mr. Rich in at that time?

A. He was editor of a paper here at that time called the Guardian.

Q. 10. State, if you know, where Mr. Rich now is and what business he is engaged in.

A. He is United States pension agent.

4288 Q. 11. State where Mr. Rich lived at the time he made the bargain with you for these lots.

A. He lived here at Independence with Mrs. Jordan.

Q. 12. State whether you ever saw what is known as a driven well; and, if so, state where you saw the first one.

A. Yes, sir; I saw one on the west side of the river a little west of the Presbyterian church, the first one in Independence.

Q. 13. When was it that you saw that well with reference to the time you made this deed to Mrs. Jordan, before or after this deed was made?

A. It was before when I first saw it.

Q. 14. State whether or not you saw the parties when they made this well or at any time while they were making it.

A. I saw them when they were putting the well in. It was quite a new thing to us, driving a pipe in the ground and pumping water. I used to go over in the evening and look at it and pump water out of it. There was a base ball club ground just west of the well, and we used to go over and look at them and lay round and drink water out of the well.

Q. 15. State what it was they drove into the ground to make this well.

A. It was an iron pipe somewhere about two inches or two and a half inches in diameter.

Q. 16. State who it was who played ball on these grounds west of where this well was.

A. I could not name all the boys; they were the young men of Independence.

4289 Q. 17. State now whether it was not cricket ball instead of base ball.

A. Well, I don't know what they call it; I did not know there was any other ball but base ball. I can tell you how they played it. They had a big ball and they rolled it along the ground, and they had some sticks stuck in the ground like lath, and there was a man with a bat who tried to keep them from knocking these sticks down.

Q. 18. State now where you lived right after you sold this *this* place to Mrs. Jordan.

A. I moved to Ohio the 1st of October.

—. 19. How long did you live in Ohio?

A. I lived there until the following June, 1863.

Direct rests.

By stipulation, solicitors for the complainants give the same notice of expunging this witness' testimony and for the same reasons as were given in the case of witness E. S. Hovey.

Solicitors for respondent*s* make the same reply.

Cross-ex.:

4290 X Q. 1. In your direct examination you say you saw the first well called a driven well west of the Presbyterian church; how long had the Presbyterian church been built at that time?

A. It was not built yet.

X Q. 2. Who made this well that you first saw?

A. I never learned the parties' names.

X Q. 3. How many were engaged in putting down this well?

A. I do not know; I saw 2 or 3 men round there at work and a dozen or more looking on the same as I was.

X Q. 4. Did you know any of the men that were at work there or who were standing round while it was being made?

A. I did not know the names of the men who were at work there; they were strangers to me at the time; I knew all the men—the ones that were looking on; I know one, an Irishman who was working for me; his name was Pat; that is all I know; I will never forget him.

X Q. 5. How long had you known Pat?

A. About 6 months.

X Q. 6. Did you ever know his full name?

A. He told me his name; it was a kind of a peculiar name; he went all round town by the name of Pat and we never called him any other name.

X Q. 7. Describe these strangers that you say put down this well.

A. I don't know as I could do that.

X Q. 8. Where were they from?

A. I don't know that.

X Q. 9. Where did they stop when they were here at that time?

A. I think they stopped at the house now called the Merchants' Hotel.

X Q. 10. Who kept that hotel at that time?

4291 A. I don't know as I could say, there has been so many kept it; either Sherwood or Kimball, some of those men, kept it at that time.

X Q. 11. Now, state particularly, if you please, how this well was made.

A. The first I saw I saw them drive the pipe down; I stayed there and looked on awhile and went away, and the next time I saw it the pump was on and they were pumping.

X Q. 12. What did the party who drove the pipe stand on while driving it?

A. I think there were some boxes piled up that they were standing on; I know they were standing up high.

X Q. 13. Was T. H. Tyson there during the making of this well?

A. I do not know.

X Q. 14. Was John West or John Fargo or Frank Fargo or H. S. Cole present, either helping to make the well or looking on while it was being made?

A. They might have been there looking on, but they were not helping to make it. They were strangers to me that were making it.

X Q. 15. Did you know John West?

A. I don't remember him.

X Q. 16. What was the nearest building to where this well was made and in what direction? How was it occupied and by whom?

A. The nearest building that I remember is where Sherwood lives, near the mill. There might have been others nearer; I don't remember.

X Q. 17. On which side of Main St. was this well placed and on what block and what part of the block?

A. On south side of Main street; don't know the number
4292 of the block. It was on the block where the church stands,
about a little east of the center of the block. The streets were not fixed up as they are now, so that a man could not tell. To the best of my recollection it was a little east of the center of the block;

I mean east of the center—east and west. It was close to the sidewalk, on the north side of the block.

X Q. 18. Was there any buildings on the north side of the block, opposite or nearly opposite to where the well was placed?

A. I could not say whether there was or not.

X Q. 19. Was there a blacksmith shop on the north side of Main street, on the S. W. corner of the block, opposite to where the Presbyterian church now stands, when that well was there?

A. I don't think there was a blacksmith shop there at that time. There was one east of the lot where the well was, on the next block.

X Q. 20. Who occupied the blacksmith shop at that time?

A. I could not say whether Mr. Sears occupied it or not; he built it.

X Q. 21. Of what material was this shop?

A. It was a wooden building.

X Q. 22. Where did you reside when you saw this well?

A. In Independence, in this house I sold to Mrs. Jordan.

X Q. 23. At what place did you reside on your return from Ohio in June, 1863, and how long did you reside there?

A. I rented a little house of Mr. Forrester and lived there 3 months, and then I built me a new house and lived there 5 or 6 years.

X Q. 24. How near was this house you built and lived in 5 or 6 years to the house you sold Mrs. Jordan and in what direction from it?

A. It was about 20 or 25 rods northwest, just across the street and in the next block.

4293 X Q. 25. Do you know where S. S. Allen lived at the time you saw this well put down? If so, state.

A. He lived on the west side of the river; the house he sold Philipps, south of where Stout now lives.

X Q. 26. Did D. S. Deering live on the N. E. corner of that block that Allen lived on?

A. I think he did. He has lived there ever since I have known him.

X Q. 27. What was this well put down for?

A. I really don't know. I know it was put down there, and I saw it there.

X Q. 28. How long did it remain there?

A. I think it was there several years; I don't know just the time.

X Q. 29. Was there claimed to be a patent on this well at that time?

A. Well, I believe there was something of that kind; I could not say exactly.

X Q. 30. From what you learned at the time concerning this particular kind of a well did you understand that it was patented, or that there was a patent on that particular kind of a well, or anything connected with it?

A. No; I did not understand it was patented; come to think, it was driven there to show people they could get a cheaper well than by digging and walling up.

X Q. 31 Then it was claimed to be a new kind of well?

A. Yes, sir; it was new to me.

X Q. 32. Did it attract the attention of people generally, and was it regarded as a great curiosity?

A. I think it did, because they thought it would not pump water enough, and we tried to pump it dry. I think it was regarded as a great curiosity.

4294 X Q. 33. Did the parties who put this well down try to sell the right to put down wells of this kind?

A. Not to my knowledge. They tried to put in wells.

X Q. 34. Did they put in wells for any one else in this town and county about that time?

A. I don't know; I don't think they did.

X Q. 35. How do you know they tried to put other wells down or offered to?

A. Well, we tried to pump it dry one evening, and one of the men said they would put us in a well, and if we could pump it dry he would not charge a cent for it.

X Q. 36. What was the price for putting in a well of that kind by these parties?

A. I don't know; I did not want to get one put in, and so I did not inquire the price.

X Q. 37. What was the name of this well; what was it called?

A. I don't know as they gave it any name.

X Q. 38. In talking about it what did they claim for it?

A. The principal points claimed were they could get a well cheaper than they could dig one.

X Q. 39. How many of these strangers were there that were connected with or interested in the well?

A. I could not tell; there were a good many people; many of them were strangers to me. This was a new county then. There were two at work; one was holding the pipe and the other was driving it down.

X Q. 40. How many newspapers were published in Independence at that time?

A. There were two, to the best of my recollection.

X Q. 41. Was there anything said in the newspapers about the new well at that time?

4295 A. There might have been; I don't remember.

X Q. 42. Were the roads or streets laid out or worked on the west side of the river near where this well was made at the time you saw it?

A. They were all laid out; they were not worked, except this Main street; that might not have been worked; it was traveled.

X Q. 43. How long was it after seeing this 1st well you have referred to before you saw another well of that kind in Independence?

A. I think it was 5 or 6 years, that I remember. It was one I had put in myself. Others might have had them put in.

X Q. 44. Where did these men go to after putting this well down?

A. I do not know, and I do not know where they come from.

X Q. 45. How long did they remain in Independence?

A. I do not know.

X Q. 46. Did you pump water out of that well after you returned from Ohio, in June, 1863?

A. I do not know.

X Q. 47. Did you see it used after you returned?

A. I don't know as I did; I think it was there, though.

X Q. 48. Did you hear the names of any of the parties that were here with that particular kind of a well?

A. I don't remember that I did.

X Q. 49. Did you hear any talk about either buying or selling territory or the right to use that kind of a well?

A. I don't think I heard anything about selling territory; they wanted to put in wells, and put this one in to show the people that it was a good well.

4296 X Q. 50. Do you know of these same parties or any other parties living in Independence and putting a well near this place and offering to sell territory since that time?

A. I do not.

X Q. 51. Where did you reside in 1865 and 1866?

A. I lived in Independence, on the east side of the river.

Cross rests.

Redirect:

R. D. Q. 1. You say in your cross-examination that Sears built a blacksmith shop east of where this well was, in the next block; was that shop north or south of Main St.?

A. It was south.

R. D. Q. 2. Who lives north and who south of the place you sold Mrs. Jordan?

A. Alex. Smith lives south, and John McGrady north.

R. D. Q. 3. Did they live there when you sold to Mrs. Jordan?

A. Yes.

R. D. Q. 4. What year did you have one of these wells put in for yourself?

A. I think in 1865 or '6. It was the time I built that new house there.

Redirect rests.

Recross:

R. X Q. 1. Who put in the well for you that you have just referred to?

A. Mr. Hovey.

Recross rests.

(Signed) A. HAGEMAN.

Subscribed and sworn to before me this 20th day of April, 1881.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

Adjourned until Thursday, April 21st, at 9 o'clock a. m.

4297 THURSDAY, *April* 21*st.*

Met at the office of Lake and Harmon, at 9 o'clock a. m., pursuant to adjournment. All parties present.

J. W. FOREMAN, being produced, sworn, and examined on the part of the defense, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is J. W. Foreman; am 36 years of age; reside in Buchanan Co., Iowa.; am county recorder.

Q. 2. How long have you resided in Buchanan Co., Iowa?

A. 32 years.

Q. 3. How long have you been county recorder?

A. Since January 3rd, 1881.

Q. 4. State whether at any time you examined the records of your office to find a deed from Anton Hageman and wife to Margaret A. Jordan.

A. I have.

Q. 5. State what you found, and if you have a copy of the deed present the same to the notary that he may mark it for identification.

4298 A. I found a deed running from Anton Hageman and wife to Margaret Jordan, bearing date of Sept. 16th, 1862, and recorded in book 16, on page 561. I now present the same to the notary.

Deed presented, marked Exhibit "A," F. Jennings, notary public, Ap'l 21, 1881.

Q. 6. State, now, whether this deed, as presented to you by the notary, is a true and compared copy of the original as found of record by you in your office.

A. The copy as presented is a true and compared copy of the original as found of record in my office.

Direct rests.

(Signed) J. W. FOREMAN.

Subscribed in my presence and sworn to before me by J. W. Foreman this 21st day of April, 1881.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4299 B. W. OGDEN, being produced, sworn, and examined on the part of the defense, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is B. W. Ogden; am 60 years of age; reside in Buchanan Co., Iowa; am a farmer.

Q. 2. How long have you resided in Buchanan Co., Iowa?

A. About 27 years.

Q. 3. Where did you reside and what was your occupation in 1861?

A. Resided about 4 miles south of Independence; occupation, a farmer.

Q. 4. State whether at any time you saw at Independence, Iowa, a well said to be made by driving a tube in the ground and attaching a pump on the top of the same.

A. I have; saw a well of that description.

Q. 5. Where was it located?

A. On the west side of the river, at Independence, Iowa. I don't know as I can name the exact spot. My impression is it was west of the site of the Presbyterian church. There were no buildings there then.

4300 Q. 6. Describe this well as it appeared to you at that time.

A. It appeared to me at that time to be a tube driven into the ground and a pump attached to it. It was a curiosity, which led me to examine it somewhat.

Q. 7. When was it that you saw this well?

A. My impression is that it was in the early part of 1861—that is, in the summer of 1861.

Q. 8. State what it is that leads you to think it was in the early part of 1861.

A. I had a young man who commenced to work for me that spring, the spring of 1861, by the name of Martin Hallock. During the summer he enlisted, and frequently the company used to go out in the neighborhood of where the well was for the purpose of training. I went out*er* myself two or three times to see them train. My being there for that purpose, I observed the well. The 28th of June, 1861, one of my children died with typhoid fever, and when Mr. Hallock was working with me my two children were living. I lost one a little later than that.

Q. 9. In what company did this Martin Hallock enlist?

A. I do not think I can get the company. I do not believe I can give the name of the company. My impression is it was Lee; yes, Lee was the captain.

Q. 10. Look at the roster of Company "E," 5th Iowa Infantry, and see if you find in that the name of this Martin Hallock.

A. I find it here, sir.

4301 Q. 11. State what that roster shows as to his name, age, and place of residence.

A. Martin Hallock; 21 years of age; residence, Strawberry Point; nativity, Michigan.

Q. 12. Does that agree with the name, age, and residence of the Martin Hallock who worked for you?

A. Yes, sir.

Q. 13. What official positions have you held in this county since you have been a resident of it?

A. I was justice of the peace a number of years; president of the town school board; am now a member of the school board of this city.

Deft now offers in evidence volume one of the adju't gen'l's report of the State of Iowa, of date Jan'r'y 1st, 1863, so far as it shows the roster of Company "E," 5th Iowa Volunteer Infantry, and especially as it shows the name and date of enlistment and record of Martin Hallock.

As this book and the roster of this company has already been offered in evidence, the defendant calls attention to the said name of Martin Hallock, in addition to the others heretofore mentioned.

Direct rests.

4302 By stipulation solicitor for complainants gives the same notice of expunging this witnesses' testimony as was given in the case of witness E. S. Hovey.

Solicitors for respondents make the same reply.

Cross-examination:

X. Q. 1. Who made the well that you have testified about in your direct examination?

A. I have no knowledge of who made it; nor do I think at the present I ever had.

X Q. 2. Who owned or controlled that well?

A. I do not think I can say at the present.

X Q. 3. Did you ever know who ever owned or controlled it?

A. I may have known.

X Q. 4. What is your best recollection as to whether you ever knew who owned or controlled it?

A. I may have known; I don't think I could give anything positive; it is a good many years ago.

X Q. 5. Did you see the well made?

A. I did not.

X Q. 6. How many times did you see that well, as near as you can remember?

4303 A. I can't say with certainty; that I saw it two or three times and may have seen it a good many more time; I was there when the boys were drilling.

X Q. 7. What information, if any, did you obtain at the time about who put the well down or what it was put down for?

A. I do not recollect at present that I obtained any information at that time about who put the well down; I don't recollect that I heard the object of the well being put down, for my impression is it was put down as an experiment in that locality.

X Q. 8. State how you got that impression.

A. I got that impression from opinion of various others who expressed themselves in regard to the matter at that time.

X Q. 9. Was there a good deal of attention attracted by that well on account of the peculiar method upon which it was constructed?

A. There was.

X Q. 10. Who did you hear express themselves at that time in regard to this well being an experimental well?

A. Do not think that I can at present give you the names of any person positively.

X Q. 11. Who did you ever see at the well other than the one you have named?

A. I cannot name any person.

X Q. 12. You state in your direct examination that this well was said to be a driven well; state how you obtained that information.

Question withdrawn.

4304 X Q. 13. Did you understand or learn from any source at that time that there was a patent on the method of constructing this well, or that a patent was claimed on any part of it by any one, or was it understood generally to be a patent well?

A. My impression now is that it was a patent well; would not be positive.

X Q. 14. How long did this well remain there?

A. I can't give you the length of time it remained there.

X Q. 15. What is your best recollection? Give it as near as you can.

A. It seems to me it was there most of the summer; still it may have been there only a short time.

X Q. 16. What was the peculiarity of this well different from other wells with which you are familiar?

A. It seemed to be a tube driven down into the ground with a pump on top of it; it was not like any well I had ever seen before.

X Q. 17. What, if any, advantages were claimed for it over other wells?

A. I believe the only one was it was more easily gotten.

X Q. 18. Was there anything said or did you understand from what was said that that kind of a well would yield a greater supply of water than an ordinary dug well?

A. No.

X Q. 19. What was the nearest building to this well?

A. I can't give you that; there has been so many changes we lose our land marks.

X Q. 20. How long did you reside on this farm where you say you lived when you saw this well, and when did you leave it?

4305 A. About 12 years; I think I left it in 1865 or 1866; am not certain just now.

X Q. 21. What direction was this well from the farm on which you lived?

A. West of north.

X Q. 22. When did you next see a well of that kind after you saw this one, and where?

A. I don't believe I can state the time; it was about in 1867, I think; I have seen them before that; my impression is that I saw them as early as 1865; at any rate, the one I can locate is about 5 miles southwest of Independence, Iowa; my impression is it was about 1867; earlier than that, I think; Mr. Hovey's folk- were trying to put down wells in the neighborhood where I am living.

X Q. 23. On whose place was this one you saw in 1867, and who made it?

A. On John Gunthe's farm; I do not know who put the well there.

X Q. 24. Where did you next reside after you moved from your farm, in 1865 or 1866?

A. About a mile south of Main street, in Independence; I lived there about 2 years.

X Q. 25. When did you next see Martin Hallock after he left Independence in this company, as you state?

A. I never saw him again.

X Q. 26. Did you ever know of his being home on a furlough?

A. No; I never knew of his being home on a furlough.

X Q. 27. What became of him?

4306 A. I saw it stated in the papers some time in the fall of 1861 that he died in St. Louis; I received a letter from him at St. Louis previous to that.

X Q. 28. How often did you and he go to this well together?

A. We never went to this well together.

X Q. 29. Have you ever owned or used a driven well?

A. No, sir.

X Q. 30. When was the subject of this examination brought to your attention?

A. A few weeks ago.

X Q. 31. By whom, and what was said?

A. I think it was Mr. Lake, but I am not certain it was; I think he asked me something about a well on the west side of the river that was driven there a number of years ago; I don't recollect the exact language; I told him that I did, about the time of it; I gave him the circumstance of Mr. Hallock enlisting and my going there to see them train, and of observing the well at that time.

X Q. 32. Did you know D. S. Deering at that time; if so, where did he reside?

A. I think I did; I do not know where he resided at that time.

X Q. 33. Were the streets worked round where this well was at that time, or was the ground in that locality an open common without any indication of streets except that made by travel?

A. There was considerable of open common there, and I think the streets were not adhered to in travel; but the streets were located is my impression.

4307 X Q. 34. There has been a good deal of excitement in this locality within the past two or three years, has there not, on the driven-well question, on account of these complainants claiming a royalty on the wells put down?

A. There has been some excitement.

X Q. 35. Have you attended any of the meetings held by the opposition to the collection of this royalty?

A. I have not.

X Q. 36. It is generally understood that there is an organized opposition to the collection of this royalty, is it not, and that matter has been talked of freely by the citizens of this county?

A. Yes.

X Q. 37. Did you know Thos. H. Tyson at the time you saw this well; if you did, where did he live, if you know?

A. I think I knew him at that time; am not certain; I do not know where he lived.

X Q. 38. What year was the Presbyterian church built, on block (3), on the west side of the river?

A. I can't give you the time of the building of that church.

X Q. 39. Was there anything said in the newspapers about the well you say you saw?

A. My impression is there was.

X Q. 40. What was the nature of the notice, if anything?

A. I don't think I can give the nature of the notice, no more than it was to everybody a novelty.

4308 X Q. 41. Did you ever, after seeing this 1st well, see any other well in the same locality that attracted an equal amount of attention by reason of its novelty?

A. I don't think at present that I ever had any knowledge of their being another well there in that locality; there may have been; I can't think of it now.

Cross rests.

Redirect:

R. D. Q. 1. Who told you, if any one, that this was an experimental well?

A. I can't say who told me.

R. D. Q. 2. Did any one tell you that it was an experimental well?

A. I think not. I have no recollection of it. I got my impression from what the people said.

R. D. Q. 3. Did any one say that it was an experimental well?

A. I cannot say that they did.

R. D. Q. 4. Did any one say that it was patented?

—. I have no recollection of its being said it was a patent well or patented.

R. D. Q. 5. Has the general excitement in this community affected your recollection as to this well?

A. It has.

R. D. Q. 6. Are you positive that this well was seen by you the same summer that Martin Hallock enlisted?

A. I think I am.

R. D. Q. 7. Are you positive that you lived on the farm about 4 miles from Independence, Iowa, when you saw this well?

A. I am.

(Signed) B. W. OGDEN.

Subscribed and sworn to before me and in my presence this 21st day of April, 1881.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

Adjourned until 2 o'clock p. m.

4309 2 o'clock p. m.—Met pursuant to adjournment, all parties present.

H. S. Cole, being produced, sworn, and examined on the part of the def't, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is H. S. Cole; am 48 years of age; reside in Buchanan Co., Iowa; am in the agricultural machinery business.

Q. 2. How long have you lived in Buchanan Co., Iowa?

A. 19 years last winter.

Q. 3. Did you know Charles Brown and know of his putting in a well in Independence about the year 1866?

A. Yes, sir.

Q. 4. What kind of a well was it? And state how it was made.

A. I should call it a drive well in the full sense of the word. They did not call it such. We took the bar in the first place and put a blind plug in it and chucked down in the earth about from 8 to 12 feet; we then put on a common screen point and drove it down into water; put on a sand pump, and had a well in a few minutes.

4310 Q. 5. Who was here with Charles Brown at that time?

A. Augustus Harrington and John West.

Q. 6. Where did Brown live then, and where does he now live?

A. They all lived in Warsaw, Wyoming Co., New York. Brown now lives in St. Paul, Minnesota.

Q. 7. What did they call this well?

A. Chamberlain's reservoir well.

Q. 8. What time was that well put down, and when was it taken up, if you know?

A. It was put down some time the last of May or the first of June, 1866. It was taken up the very last days of June or 1st of July of the same year.

Q. 9. State, if you know, where that well was taken when they took it up.

A. We took it over to Vinton, Benton Co., Iowa, and drove it on Main street opposite an old hotel.

Q. 10. Who went with you to Vinton Iowa?

—. Brown, Harrington, West, and myself.

Q. 11. What day did you return to Independence?

A. The next day, either the first or second of July; would not say which.

Q. 12. Where was you on the 4th of July, 1866?

A. At Independence, Iowa.

Q. 13. Was there a well of that kind on the block where this well was made in June, 1866, on the 4th day of July, 1866?

4311 A. No; I should not suppose there was; I never saw one except that for several years after; it was the first and the last one I saw until Hovey went to driving wells here.

Q. 14. Where did you live in 1861?

A. Lived in Sharon, Walworth Co., Wisconsin.

Q. 15. Had you at that time ever been in Independence, Iowa?

A. No, sir; the first time I ever came here was in Feb., 1862.

Direct rests.

Cross-examination:

X Q. 1. At the time you and others put down the well you

4312 have referred to, in 1866, did you hear anything said by any one that you can now remember about a well similar to that having been put down on or near the same place prior to that time?

A. No; I don't recollect of hearing of anything of the kind.

Cross rests.

Redirect examination:

R. D. Q. 1. Was not you at that time at work assisting in putting down the well?

A. Yes, sir; I and West put down this well alone.

R. D. Q. 2. Was not you at that time somewhat deaf?

A. Yes; have been for 24 or 25 years.

Redirect rests.

R. X Q. 1. Did you not, during the time you were helping to put down that well, hear a good deal said one way and another by citizens and others around about that kind of a well, and was it not regarded by all as a new and novel well?

4313 A. They were talking and we were at work; I was not selling; I was simply working, and I did not pay much attention to what people said.

Question repeated.

A. No; I did not hear it talked in that way.

R. X Q. 2. How did you hear it talked?

A. I can't tell; I have no recollection of the talk that took place at that time.

R. X Q. 3. Do you remember whether or not that kind of well was regarded at that time as a new and novel well, and whether or not it was claimed that a well of that kind had been previously put down on or near that spot?

A. I do not know; there was nothing of that kind stated to me.

4314 By request of counsel for respondent the notary states that after the question was read over to the witness and he answered, "I don't know," it was then re-read to him and he repeated, "I don't know."

Then counsel for complainant- explained to the witness the question, and then the witness said, "There was nothing of that kind said to me," and the counsel for respondent insisted that that fact should be shown in the record after the sentence "I do not know" and before the balance of the answer.

(Signed) H. S. COLE.

Subscribed in my presence and sworn to before me this 21st day of April, A. D. 1881.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

Notice having been served on complainants that H. S. Cole would be examined after May 2d, 1881, and it being more convenient to examine him now, by agreement the time of examination is waived and he is examined now as though he had been examined on the original notice.

Respondent now offers in evidence deed from Anton Hageman & wife to Margaret A. Jordan, marked Exhibit "A."

4315 S. M. MARQUETTE, being produced, sworn, and examined on the part of the defense, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is S. M. Marquette; am 50 years of age; reside in Buchanan Co., Iowa; am engaged in the furniture business.

Q. 2. Are you the same S. M. Marquette who was heretofore examined in these driven-well cases?

A. I am.

Q. 3. In that examination you stated that you saw a well on the west side of the river at Independence, Iowa, about 1860 or 1861, which was made by driving an iron tube and fixing a pump on the top of the same. Now, state whether that well was there more than one season. If so, how long was it there?

A. It was only there one season, from spring to fall.

Q. 4. Do you know of that or another well like it being put down there the next season?

A. There was another just like it put down the next season, I think.

Q. 5. How long did this second well remain there?

4316 A. From spring until fall.

Q. 6. Do you know whether the same party who put down the 1st well put down the 2d one?

A. No; I think not.

Q. 7. When was there another well of a like kind put in or near the same place?

A. Three or four years after—1865 or 1866—where the Presbyterian church was built.

Q. 8. Did you know Margaret A. Jordan when she lived in Independence, Iowa?

A. Yes.

Q. 9. What house did she live in when she lived on the west side of the river?

A. In the house now owned by Stewart, on the corner of Willow and Spring streets, right opposite my place.

Q. 10. Who has lived in that place for a number of years past?

A. Joseph M. Chandler.

Q. 11. State, if you know, who lived with Mrs. M. A. Jordan when she lived in that house.

A. Jacob Rich.

Q. 12. What was Mr. Rich's business at that time?

A. Running a newspaper, now called the "Bulletin;" it was called the "Guardian."

Direct rests.

Cross waived.

(Signed) S. M. MARQUETTE.

Subscribed and sworn to before me and in my presence this 21st day of April, 1881.

[SEAL.] FRANK JENNINGS,
Notary Public.

Adjourned until 7.30 p. m.

4317 J. H. Blakly, being produced, sworn, and examined on the part of the defense, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?

A. J. H. Blakly is my name; am 41 years of age; reside in Buchanan Co., Iowa; am at present not engaged in any particular business.

Q. 2. How long have you lived in Buchanan Co., Iowa?

A. Some 25 or 26 years.

Q. 3. Are you the same J. H. Blakly that has been examined in these driven-well cases?

A. I am.

Q. 4. At the time you saw the well that you then described who was with you?

A. There were a number with me, but I can't name any of them except a cousin of mine, Oscar G. Luckey.

Q. 5. Where did said Oscar G. Luckey live at that time?

A. At Mr. Orlando Cobb's.

Q. 6. What direction is that from where the well was, and about how far?

A. It is southwest, and I should judge about ¾ of a mile.

4318 Q. 7. Where does Orlando Cobb now live?

A. Live- where he did at that time.

Q. 8. State, if you know, whether Oscar G. Luckey was at work for Orlando Cobb that season.

A. Yes, sir; I think he was.

Q. 9. Do you know in what Orlando Cobb paid him a part of his wages? If so, state.

A. I don't know of anything except a span of sucking colts that Luckey took of Cobb for $50 towards his wages.

Q. 10. State, if you know, what became of these colts.

A. I bought them of Lucky that same fall and took them from Cobb's.

Q. 11. After you and Lucky saw this well did you go with him to Mr. Cobb's?

A. I can't say whether I went down there that day or not; I presume I did, but I won't be positive.

Q. 12. State whether this Orlando Cobb is in any way related to you. If so, what relation is he?

A. His wife is an aunt of mine.

Q. 13. State whether at any time during that season you talked with Mr. Cobb about this well.

A. I don't remember it.

Q. 14. State whether you are sure you saw this well the same season you bought the colts of Lucky.

A. Yes, sir; I think I did.

Direct rests.

4319 Cross-examination:

X Q. 1. Where did you reside in 1866?

A. In Sumner township, Buchanan Co., Iowa, I think?

X Q. 2. Where did Mr. Cobb live in 1866?

A. He lived there where he does now; it was then in Sumner t'p, I don't think it is now; it is New Independence.

X Q. 3. Where did Mr. Lucky live in 1866?

A. Independence, I think, Buchanan Co., Iowa.

X Q. 4. Did he work for Mr. Cobb during the years 1865 and 1866?

A. Don't think he did; don't know of it.

X Q. 5. Can you swear positively he did not work for him in either of those years?

A. No, sir; I cannot, but I don't think he did.

X Q. 6. What business were you engaged in in 1861 and 1866 and where?

A. I was farming part of the year in 1861, and running threshing machine in the fall; farming in 1866; in 1861, in Sumner township. In 1866 I was farming in Homer t'p. The farms join, being only the township line between them.

Cross rests.

Redirect:

R. D. Q. 1. Did you buy any colts of A. G. Lucky in 1866?

A. No, sir.

R. D. Q. 2. For whom was you farming in 1861?

A. For my father, A. C. Blakly.

R. D. Q. 3. During the time between 1861 and 1866 was you away from Iowa; if so, in what capacity?

4320 A. I went to Wisconsin in the spring of 1862, and enlisted in the army in August, and was in the army 3 years, two months.

R. D. Q. 4. In 1866 for whom was you farming?

A. I was farming for myself.

Redirect rests.

(Signed) J. H. BLAKLY.

Subscribed and sworn to before me by the said J. H. Blakly this 21st day of April, A. D. 1881.

(Signed) FRANK JENNINGS,
Notary Public.

Adjourned until Friday, April 22nd, at 9 o'clock a. m.

4321 FRIDAY, *April* 22*nd*, *A. D.* 1881.

Met pursuant to adjournment. All parties present.

JOHN M. WESTPHOL, being produced, sworn, and examined on the part of the def't, deposes as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is John M. Westphol; am 57 years of age; reside in Buchanan Co., Iowa; am a farmer.

Q. 2. How long have you resided in Buchanan Co., Iowa?

A. About 27 y'rs; I came here in 1853.

Q. 3. Where did you reside and what was your business in 1860, 1861, and 1862?

A. In Independence, Iowa; I was engaged as carpenter and joiner at that time—I mean in 1860 and 1861 I was carpentering; in 1862 I was sheriff of the county.

Q. 4. Did you in either of those years know of a cricket club in Independence, Iowa?

4322 A. I did.

Q. 5. State now who were members of that club, as fully as you can.

A. Carl White, O. H. P. Rozelle, Charles F. Herrick, and myself is all I remember; there were quite a number of others.

Q. 6. Did you at that time know W. S. Marshall, A. B. Lewis, and Tom Blondin?

A. I did.

Q. 7. Were they members of that club, or did they play with — at times?

A. I think they were members.

Q. 8. Where did that club have its playgrounds?

A. On the west side of the river, where Z. Stout now lives; on block 4 in Stoughton and McClure's 2d add. to Independence, Iowa.

Q. 9. While that club was in operation did you at any time see a well near those grounds that attracted attention by means of its construction?

A. Yes; I did.

Q. 10. State how the well appeared and what was said at the time about how it was made.

4323 A. It was simply a pump, they said, drove into the ground. There did not appear to be any digging around it—nothing more than we thought it a cheap way of getting water; I don't know all the comments there were made on it.

Q. 11. State whether or not you saw this well used for any purpose; if so, what?

A. It was used for drinking water there; most every one who came along and wanted to use water would pump and drink, and also the club used to drink there.

Q. 12. When was that cricket club disbanded? State the occasion of its disbandment.

A. In 1861, I think—I am pretty positive; it was the war, I believe, that broke it up.

Q. 13. What became of some of the members?

A. They went into the army, a large number of them.

Q. 14. In what company did they go, if you know?

A. In the 5th Iowa Infantry, I believe; I believe Lee was captain and Jordan 1st lieutenant.

Q. 15. After these men went away in Capt. Lee's company was there any cricket played on those grounds?

A. No, sir.

Q. 16. How long did you continue to live in Independence after 1862.

A. I moved out on my farm in 1870; it would be 8 years.

Q. 17. State whether or not you are certain this well was there when this cricket club was in existence.

4324 A. Yes; I think it was.

Q. 18. Did you ever pump water from that well; if so, what was the quality and apparent quantity of water?

A. I did; it was good drinking water; it would pump a good stream; there appeared to be plenty of it.

Q. 19. How long was you sheriff of this county?

A. Five years—elected two terms and filled an unexpired term of Gillett's.

Q. 20. What other official positions have you held in this county?

A. I was constable one year before I was sheriff; deputy provost marshal during the war, also city marshal.

Direct rests.

Cross-examination:

X Q. 1. Who made this well that you have referred to?

A. I don't know.

X Q. 2. How long was it there?

A. I could not state.

X Q. 3. Who owned the well?

A. I don't know.

X Q. 4. Under whose control was it while it was where you saw it?

A. I don't know.

X Q. 5. For what purpose was it put down?

4325 A. I always supposed it was put down for an advertisement to show the well.

X Q. 6. By what name was that well known, or what was it called?

A. It was called a drive well.

X Q. 7. What was the nearest building to this well, and how was it occupied?

A. There were buildings right on the north side of the street, occupied by families.

X Q. 8. Did the well attract a great deal of attention on account of its peculiarity?

A. It did.

X Q. 9. When did you next see a well of that kind in Independence?

A. I could not state; I remember of seeing one driven in Iowa, in front of the hotel, in 1868.

X Q. 10. Do you now remember of seeing a well similar to that in Independence prior to the time you saw the one in Waterloo?

A. No; I don't remember of seeing one.

X Q. 11. From any information obtained about the time you saw this 1st well, did you learn or get the impression that that kind of well was patented?

A. I don't remember.

X Q. 12. What is your best recollection on that subject now?
A. I don't remember what my recollections were then about it.

Cross rests.
(Signed) J. W. WESTPHOL.

Subscribed and sworn to before me this 22nd day of April, A. D. 1881.
(Signed) FRANK JENNINGS,
Notary Public.

4326 Met, pursuant to adjournment, at the residence of Orlando Cobb, the witness herein, he being unable to attend by reason of physical inability.

Orlando Cobb, being produced, sworn, and examined on the part of the def't, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?
A. My name is Orlando Cobb; am 65 years of age; reside in Buchanan Co., Iowa, and not engaged in any business.
Q. 2. How long have you resided in Buchanan Co., Iowa?
A. Either 27 or 28 years last December.
Q. 3. What has been your business since you lived here?
A. Farming.
Q. 4. Did you at any time see in Independence, Iowa, a well that attracted attention by reason of its construction?
A. I did, sir, in 1861.
Q. 5. Where was that well located?
A. South side of Main St., west side of the river.
Q. 6. State whether you talked with any one about this well at the time; if so, who?
4327 A. I did, to Oscar Lucky; he was working with me.
Q. 7. Have you any account or memoranda that shows when Oscar Lucky worked for you?
A. I have.
Q. 8. In what is that memoranda entered? And please read it to the notary so that he may copy it.

X Q. 1. In whose handwriting is this memoranda that you are now asked to refer to?
A. In my own, Orlando Cobb's.
X Q. 2. In whose possession has this book been in the time intervening between 1860 and the present time?
A. My own possession.

Witness, answering direct interrogatory No. 8, says:
A. In my account book, and is as follows:
"March 19, 1861, hired Oscar Luckey for 8 months, at $12\frac{50}{100}$ dollars per month."
4328 Q. 9. When was that entry made in your book, and who made it?
A. It was March 19, 1861; I made it.

Q. 10. Is there any other entry on that same page as to Oscar Luckey or his working for you, or as to payments made to him; if so, give them to the notary, that he may copy the same.

A. There are other entries. "Loss time April 18th, 1 day; 19th, 3½ days; July 4th, 1 day; July 4, paid him $1.00; paid him $3.00."

Q. 11. State, now, when that entry of lost time April 18 was made, and who made it.

A. It was made at the time he lost it, by myself.

Q. 12. When were the entries made as to lost time July 4 and money paid July 4, and by whom?

A. They were made July 4th, in the evening, by myself.

Q. 13. Have you in that book any other entries of payments made to Oscar Lucky; if so, what are they?

A. I have. "Sept. 23d, 1861, sold one pair of sucking colts to Oscar Lucky towards his summer work, for $50.00."

Q. 14. When and by whom was that entry made?

A. It was made the 23d of Sept., at the time I sold the colts.

Q. 15. Have you in that book any other entry as to payments made to Oscar Lucky; if so, give them to the notary, so he can copy them.

A. I have. December 14th, 1861, paid Oscar Lucky $58.50, being in full of all demands.

4329 Q. 16. When and by whom was that entry made?

A. By myself; December 14, 1861.

Q. 17. State, now, whether or not this is the book in which you kept your general accounts at that time.

A. It is.

Q. 18. State whether, at that time, you now remember of talking with Oscar Lucky about this well that you saw at Independence, Iowa.

A. I do.

Q. 19. State whether he had seen the well when he talked with you about it.

A. He had not at the time he talked about it at first; he told me he saw it on the 4th day of July; that he was there and pumped water out of it; it was between the 1st and the 4th that I saw it, and I told him to go and see it; he came home on the 4th and said he had seen it and pumped water out of it.

Q. 20. Do you know what Oscar Lucky did with the colts you sold him? If so, state.

A. He sold them to James Blakly before they were taken from here.

Q. 21. Will you allow the notary to make a copy of the pages in your book where these entries appear and attach the same to your deposition?

A. Yes, sir.

Direct rests.

4330 Cross-examination:

X Q. 1. Who made this well that you say you saw and about which you say you talked to Oscar Lucky?

A. I don't know who made it.

X Q. 2. Why did you call Oscar Lucky's attention to that particular well?

A. Because it was the first one I had ever seen of that kind.

X Q. 3. What kind of a well was this called?

A. It was called a drive well, is what I heard them call it.

X Q. 4. How long did it remain where you saw it?

A. I could not say.

X Q. 5. State as near as you can.

A. I think but a few days.

X Q. 6. Did it attract much attention at the time?

A. There were a number looking at it the same time I saw it there. I think it did attract attention.

X Q. 7. Who owned or controlled this well?

A. I could not say.

X Q. 8. For what purpose was it put down?

A. I suppose to show people what kind of a well they were—a drive well—an advertisement; that is what I concluded.

X Q. 9. From any information at that time obtained by you, did you understand that that particular kind of a well was patented or that there was a patent in any way connected with that kind of a well?

A. Not that I recollect of.

X Q. 10. Did you understand that the parties owning or controllit were selling territory in which that kind of a well might be put put down?

4331 A. I did not.

X Q. 11. In what way did you understand it was being advertised and for what purpose?

A. I don't think that I understood anything, except that I suppose it was put down as an advertisement for that kind of a well.

X Q. 12. What became of that kind of a well?

A. I could not tell you.

X Q. 13. When and where did you next see a well of that kind?

A. Well, I can't state exactly the time when I saw it; there has been two others there since; one was by the Presbyterian church—by the oak tree near the church.

X Q. 14. State, as near as you can, how many years it was after you saw the first well until the time you saw the 2d well.

A. I can't tell; I remember it was 3 or 4 years after I saw the first that I saw the one at the Presbyterian church.

X Q. 15. Did you ever learn where the parties were from who put down the first well? If so, state fully.

A. Not to my recollection.

X Q. 16. What was the nearest building to the 1st well you saw and how was it occupied?

A. The well was on the common.

X Q. 17. Was there any building across this road, north from where the road stood?

A. There was one nearly opposite, I think.

X Q. 18. Was it a blacksmith shop?

A. Yes, sir.

X Q. 19. Who occupied it?

A. I am not positive, but I think Mr. Scott.

4332 X Q. 20. Have you resided in the same place in which you lived in 1861 up to the present time?

A. I have.

X Q. 21. Do you know how that first well was made?

A. I did not see it made; they told me it was a drive well, drove into the ground, and I pumped water out of it myself; it was a great curiosity to me.

X Q. 22. How long has your present disability confined you to the house?

A. The 27th of this month it will be six years—the present month.

Cross rests.

Redirect:

R. D. Q. 1. State now whether it might not have been more than 3 or 4 years after you saw this first well before the Presbyterian church was built.

A. I am not positive, sir; because I was not looking after it.

R. D. Q. 2. Did Oscar Lucky work for you any season after 1861?

A. No, sir.

R. D. Q. 3. Are you sure that it was while Oscar Lucky was at work for you that you saw this 1st well?

A. Yes, sir.

Redirect rests.

(Signed) ORLANDO COBB.

Subscribed in my presence and sworn to before me this 22nd day of April, A. D. 1881.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4333 *Copy of Entries in Orlando Cobb's Book.*

September, 1860:

15. Paid T. H. Tyson dollar-:	18 00
18. Paid T. C. Bartle towards my reaper.	15 00

Give him two notes, 60 dollars each, due the first of May next, the other the first of December next.

October, 1860:

23. Sold 8 head of cattle for	77 50
Sold corn for	25 00
Paid James Blakly for one month's work	10 00

March, 1861:

19.	Hired Oscar Lucky for 8 months, at 12.50 dollars per month.	
	Paid him money	$3 00
	July 4, paid him money	1 00

Lost time:

	Days.
April 18	1
19	3½
July 4	1

September, 1861:

23.	Sold 1 pair sucking colts to Oscar Lucky, towards his summer's work, for fifty dollars	50
27.	Sold 50 bushels of wheat, at 44½ per bushel	22 25
30.	Received 15.00 dollars of Mr. Shattuck for cutting grain	15 00

4334 October, 1861:

4.	Sold 15 hundred in hay sent to Dr. Hunt	3 00
9.	Sold 81 bushels of wheat, at 49 cts. per bushel	39 69
9.	15 bushels, 18 lbs	6 75
16.	Sold hay to James Norton	5 00

December, 1861:

14.	Paid Oscar Lucky in full of all demands	58 50
19.	Paid one of George Esterly notes for the reaper	67 20

Counsel for respondent now gives notice that he is through taking testimony at this time and place.

April 22d, 1881.

FRANK JENNINGS,
Notary Public.

4335 *W. Deed. Filed Sept.* 16, 1862.

Anton Hageman to Margaret A. Jordan.

Know all men by these presents that we, Anton Hageman and Catherine Hageman, of Buchanan county, State of Iowa, in consideration of the sum of six hundred and fifty dollars in hand paid by Margaret A. Jordan, of Buchanan county, State of Iowa, do hereby sell and convey unto the said Margaret A. Jordan the following-described premises, to wit:

The north half of lots No. five and six in block No. nine, in Stoughton and McClure's first addition to the village of Independence, Iowa, and we hereby covenant with the — Margaret A. Jordan that we are lawfully seized of said premises; that they are free from incumbrance, and we do hereby covenant with the said Margaret A. Jordan to warrant and defend the title to the said premises against the lawful claims of all persons, and the said Catherine Hageman ereby relinquishes her dower in and to said premises.

Signed this 16th day of September, A. D. eighteen hundred and sixty-two.

ANTON HAGEMAN.
her
CATHERINE x HAGEMAN.
mark.

In presence of—
JAMES JAMESON.

"EXHIBIT A." F. Jennings, Notary Public, Independence, Iowa, April 21st, 1881.

STATE OF IOWA, *Buchanan County:*

4336–4342 On this 16th day of September, A. D. 1862, before me, a notary public in and for said county, in person came Anton Hageman and Catherine Hageman, to me personally known to be the identical persons whose names are affixed to the above deed as grantors, and acknowledge the same to be their voluntary act and deed.

Witness my hand and seal, at Independence, the date aforesaid

[SEAL.] JAMES JAMESON,
Notary Public.

I hereby certify that the above is a true and correct copy of a certain instrument of record in my office, and the same is recorded in book No. 16, on page 561, which is now in my possession and custody.

Dated April 19th, A. D. 1881.

J. W. FOREMAN,
Recorder in and for Buchanan County, Iowa.

4343 JAMES J. HUNT, of Naperville, Ill., produced and sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?
—. James J. Hunt; fifty-six; Naperville, Ill.; hardware dealer.
Q. 2. How long have you lived in Naperville?
A. Nearly 38 y'rs.
Q. 3. Do you remember what year you moved there?
A. In 1842.
Q. 4. What offices have you held at Naperville?
A. I have held the office of sheriff, Du Page Co., two terms. I have held the office of justice of the peace and police magistrate 14 y'rs.
Q. 5. What was your business when you first came to Naperville?
A. Blacksmith.

4344 Q. 6. I hand you a wooden model, which the notary may mark J. J. Hunt's Exhibit for purpose of identification, and will ask you if you know what it is intended to represent.

A. That was made by my direction to represent the form of an iron made by me in 1847 for one Jacob Engleforied for the purpose of driving in the ground for water.

Q. 7. Do you say that you made such an iron as this model represents?

A. I did; larger than that, however.

Q. 8. Please describe the circumstances of your making this iron implement for Jacob Engleforied.

A. Engleforied came to me and borrowed a rod of inch and a quarter round iron, which I sharpened for him. He took it home, and drove it into the ground; had great trouble in drawing it out of the ground; broke several chains, in consequence of the earth being heavy blue clay. He returned the iron to my shop; said he could go no further, and must abandon it. I said to him, You come after dinner; I will fix it so you can drive it and take it out. I discovered from the brightness of the rod that there was a great deal of friction to overcome on the length of the rod, and to overcome that
4345 I upset the rod about 4 inches from the end, making it about half an in. larger than the other portion of the rod; then put in steel and sharpened the end down to a point. He took the rod home and forced it down with his hands as far as it had been driven before; he then drove it down with a sledge through the clay & hard pan into the water at a depth of about sixteen feet from the surface. He withdrew the rod; made a pipe of boards, leaving a hole in the centre about an inch square; then sharpened the end of the pipe and drove it into the hole made with the rod, and the water flowed up about 3 ft. above the surface of the ground through the pipe, and continued to flow for over 20 y'rs by replacing the pipe when one rotted out with a new one.

Q. 9. This well was driven by Mr. Englefried in what year?

A. In 1847.

Q. 10. Do you know of any other instances? And, if so, name such as you are more particularly familiar with. By instances I mean wells driven into the earth.

A. The second well Mr. Englefrieds drove was on his own premises, at the rear of his distillery. It was driven in the same manner as the one previously described, except with a larger point. That furnished water for the distillery until Englefried sold the premises to Stenger.

4346 Q. 11. How long after the first well was this second one driven?

A. The first one was drove in the spring and the next one along in the same summer. I can't recollect exactly how long after.

Q. 12. What became of Mr. Englefried?

A. He went to California; at least he left for there.

Q. 13. When did he leave Naperville for California?

A. I think he left in 1850.

Q. 14. Do you know whether he is living at this time or not?

A. I have been told that he was dead.

Q. 15. Before Englefried left Naperville did you do any work for him—I mean shortly before he left; and, if so, what was it?

A. I made two points for him of different sizes, about 8 in. long each, to weld on rods to drive—for the purpose of driving—for water.

They were like the rods previously described. He took them with him. I don't know that he ever used them, but heard that he did.

Q. 16. What was the common report at that time in regard to his using these rods after he left Naperville?

A. Well, it was reported that he was making money driving wells.

Q. 17. Now, between 1847 and 1850, when Mr. Englefreid left for California, did you do any other work for him in the way of making these tools which you have described?

4347 A. I did. I lengthened out rods, shortened them, altered them according to the depth required to be driven to for water, spliced them as long as forty ft., and have made drills for him to drill through stone and augers to bore out quicksand, and saw him hauling the tools about on wagons.

Q. 18. What did you understand he was doing with these tools during this time?

A. That he was driving down for water for farmers in the vicinity of Naperville.

Q. 19. Do you personally know of his having driven any other than the wells you have mentioned?

A. I do; one for John J. Ridler.

Q. 20. Where was that driven?

A. In the village of Naperville, on the block opposite I now live.

Q. 21. About when?

A. In 1848.

4348 Cross-examination:

X Q. 22. What was the diameter of the rod you say you made for Mr. Englefried and which you say he drove into the ground?

A. I should say an inch and a quarter rod.

X Q. 23. You say he afterwards made a wooden box with a hole in the centre about one inch square, sharpened at the end. Am I to understand that he drove this box into the ground or hole you have described down to the water?

A. He did not.

X Q. 24. How far did he drive, force, or place the box you have described from the surface of the ground?

A. My opinion is—my impression is—that it was drove about three feet.

X Q. 25. Was there a pump attached to any tube or pipe connected with this well you have described?

A. There was not. It was a flowing well.

X. Q. 26. Were all the other wells you have referred to in your direct examination constructed in manner and form as the one you particularly described and last referred to?

A. Yes.

X Q. 27. How do you know that the first well made by Mr. Englefried was made as you have described?

A. I was there and saw it.

4349 X Q. 28. When the well was complete was there any tubing below the wooden box you have described, and did that box extend to the depth to which the iron rod you have described was driven?

A. There was no tubing below this wooden pipe which I have described, and did not extend to the bottom of the hole made by the iron rod.

X Q. 29. How near the bottom did this box extend?

Ans. Extended down within, probably, ten, twelve, or fourteen feet of the bottom; cannot say exactly.

X Q. 30. Please describe the location of the first well you described as put down by Mr. Englefried.

Ans. It is near the corner of a small stone house built by Englefried about 1846, and about on the line of the lot and street, about 6 rods west of Stenger's malt-house, in Naperville. I think the well is not now flowing; the house is abandoned and not used.

X Q. 31. State when you last knew of water flowing from this well.

Ans. Well, it must be six or seven years since I have known it; it is in a part of the town I seldom go in.

X Q. 32. Did you see the well made for Mr. John J. Ridler that you have described; if so, did it differ in any essential from the Englefried well?

4350 Ans. I saw that well; saw him to work at it. The only difference was that he commenced in a dry well ten or twelve feet deep—a dry well stoned up. He drove the same described iron rod to water; withdrew the rod and put down a tin pipe. The well is now in use.

X Q. 33. Was this a flowing well without any pump connected with it?

Ans. It was not a flowing well.

X Q. 34. Please describe, then, particularly how water is obtained from this well.

Ans. It has always been obtained by means of a pump—a wooden suction pump; made the head of it, what is called the head of the pump, about six inches square and about six feet long, with the suction in this head, to which is attached wooden tubing about three and a half inches square, the hole through it being about inch and a quarter. That extends down to the tin pipe, the bottom of the original stone well.

X Q. 35. State how this tube is connected with the tin tube you have described, if at all, and how water is reached.

4351 Ans. The water forces up through that tin pipe so that there is most always water above the pipe sufficient to draw up from the bottom of the pump. I have known it once in particular to be so low that they could not pump water from it. The wooden pipe and tin pipe are not connected air-tight or water-tight, but there is a hollow place where this hole is driven with the iron rod, and into this the wooden pipe fits. Englefried's idea was that he could drive the wooden pipe so as to force the tin into the wood and thereby connect them air-tight. Whether that was done or not I don't know.

X Q. 36. Is there a space around the pump tube down to the water so that the air can reach the water in this well?

Ans. It can reach the surface where the water now stands.

X Q. 37. Are all the wells you have testified about made substantially like the one put down for John J. Ridler?

Ans. They were made exactly alike, with the exception of Mr. Ridler's well being in loose or gravel ground, and it was necessary to put the pipe in to conduct the water up, whereas Englefried's wells were in hard clay ground, which would hold water.

4352 Redirect:

R. D. Q. 38. Was the wooden pipe and tin pipe connected together in Ridler's well when it was first made?

Ans. I do not know that of my own knowledge, but that was what I understood to be the object of the tin pipe.

R. D. Q. 39. So that the pumping should be direct from the tin pipe, the pump piston being, however, in the wooden pipe?

Ans. Yes, sir; so that the pumping should be through both pipes.

R. D. Q. 40. When did I understand you to say that this Ridler's well was put down?

Ans. In 1848.

R. D. Q. 41. When you came subsequently to repair this well—that is, when you and your men put in a new pump—you were unable to make a tight connection, were you?

Ans. I did not try to.

R. D. Q. 42. Why not?

Ans. Because there was water enough in the well without.

R. D. Q. 43. Was it after this repair that the water failed at one time that you have mentioned?

Ans. It was after the second pump had been put in.

4353 *Cross* redirect:

R. D. Q. 44. Please locate the Ridler well.

Ans. It is on Washington St.—on the corner of Washington St. and Van Buren, on that block; the well is there still.

(S'g'd) JAMES J. HUNT.

4354 FEBR'Y 12, 1880.

IVES W. MCGAFFEY produced, sworn, and examined on the part of the defendant:

Age, 43; residence, No. 1002 Adams St., Chicago, Ill.

Q. 2. What experience, if any, have you had in relation to patents for inventions?

Ans. I have obtained some dozen or more patents for my own inventions and devoted most of my time since a boy in devising machinery and implements.

Q. 3. Have you ever testified as an expert in any patent case?

Ans. I have; several times.

Q. 4. Are you a practical draughtsman and designer of machinery?

Ans. I am.

Q. 5. What experience, if any, have you had in connection with the sinking and construction of wells?

Ans. I spent a considerable of the time of 1859 and 1860 in the oil regions of Pennsylvania and Ohio. I sunk and owned and
4355 operated a well myself, and assisted others in the sinking and
putting into operation of their wells. These wells ranged in depth from sixty to five hundred feet. I was acquainted with, I may say, hundreds of well owners, and all the various improvements and operations tending to facilitate the pumping of oil from the ground were thoroughly discussed, including the vacuum theory.

Q. 6. Have you made yourself familiar with the laws which govern the movements of water and air?

Ans. I think I am somewhat familiar with them.

Q. 7. I hand you a copy of N. W. Green's patent reissue #4372, being the patent sued on in this cause, and will ask you if you have examined the specifications, drawings, and claims of that patent.

Ans. I have—carefully.

Q. 8. You have been an inventor, and I will ask you to suppose that previous to Mr. Green's patent it had been common to make holes in the ground for different purposes by driving down and subsequently removing rods, and that it had been also common to line bored wells with iron tubes and to supply them with pumps. Now, if all this had been done, would you consider it an invention to line with an iron pipe a hole made by driving a rod into the ground?

4356 Ans. I would answer that I would not. I *I* think if two
holes had existed in a field—the one having been bored, the other formed by a driving rod—and that I had been sent with a pump tube and pump to fix the same into one of these wells, and had previously fixed pumps into bored wells, but had not known of the existence of a driven well, but in this instance happened to get the pump tube into the driven well instead of the bored well, I should not consider that I had made an invention by so doing or that there was anything about the operation that I could patent.

Q. 9. Now, as one of the general public—which includes us all—I will ask you if you know how long it has been customary to make holes in the ground by driving down a sharp instrument which was subsequently removed?

Ans. My earliest recollection—when I was a very small boy—I attended a circus in the country; iron pins or rods were driven into the ground to support the tent, and when removed would leave small wells.

Q. 10. You do not understand, however, do you, that Mr.
4357 Green claims a patent broadly upon the idea of making a
hole in the ground by driving a sharp instrument down forcibly and subsequently removing it?

Ans. I think that is not his patent exactly.

Q. 11. But if that act of driving down a sharp instrument and subsequently removing it should produce a well by reason of the instrument being driven far enough to project into the water, would that be within Mr. Green's patent or would it not?

Ans. I should say his patent seeks to cover the driving in of the rod for the purpose of forming a well.

Q. 12. If one should drive an iron instrument shaped like this "Hunt's Exhibit" which I now hand you, which, you will see, is a wooden model of a round rod pointed at one end and having a bulbous enlargement, into the ground through stiff clay until it penetrated the water-bearing strata, and removing the rod or instrument should subsequently drive a wooden tube three feet deep into the hole so that a flowing well would be produced, would he by that proceeding use the process of constructing wells by driving or forcing an instrument into the ground until it is projected into
4358 the water without removing the earth upward as it is in boring, substantially in the manner as described in Mr. Green's patent?

Ans. Most certainly, to all intents and purposes.

Q. 13. That would be, as you understand it, substantially the process he has described, would it not?

Ans. I do exactly; equivalent, theoretically or practically; I mean to say that is exactly like it.

Q. 14. Suppose one of Mr. Green's wells to be made by driving the well tube itself into the ground until it penetrates the water-bearing strata, and a pump affixed to the top of the tube, under what circumstances, if any, could there be a vacuum produced in the ground in the neighborhood of the bottom of the well tube by the operation of the pump?

Ans. That could be possible only when the earth strata formed a perfect air-tight joint around the well tube or entirely around the pump on all sides and bottom.

Q. 15. Suppose, if you please, that the water in the immediate neighborhood of the bottom of the tube should all be pumped up, what would be the effect of farther pumping such a driven well as I have mentioned in my last question?

4359 Ans. The effect would be that the water in the pump tube above the upper valve, meaning the valve connected to the pump rod, would dance up and down at each successive stroke until more water had gathered or settled in from the surrounding soil to continue the connection.

Q. 16. Would the further pumping under such circumstances have the effect to hasten the flow, seeping, or settling of the water in toward the bottom of the pump tube; I mean, of course, in a driven well, which is made as tight as it naturally would be made by driving the tube of the well into the earth, and by further pumping—I mean a further operation of the pump—after the water immediately about the bottom of the pump tube had been exhausted?

Ans. I would say under ordinary circumstances the continuous working of the pump would have no perceptive effect or tendency to hasten the supply of water towards the pump, but still must admit that possibly under certain supposable circumstances it could be demonstrated theoretically that it would, but I consider the theory too fine to be weighed or measured by any instrumentality known to science.

Q. 17. Under exactly what circumstances would the further pumping tend to hasten the seeping, settling, or soaking of the water to the bottom of the pump after the immediate supply had been
4360 exhausted, and how often would these circumstances be likely to exist in a driven well?

Ans. The only circumstances that come to my mind at present under which the further pumping would facilitate the flow of water towards the pump would be when the area of earth surface around the pump was very limited and thoroughly saturated with water so as to form a free connection with the atmosphere resting upon the surface of the earth around the pump, and the pump of so great a capacity as to exhaust the water faster than it could flow past the obstructions of the soil around the well. These circumstances would never exist in nature, probably. I will mention, further, that in porous soil, which would allow both air and water to pass, and supposing, of course, that the pump is so constructed that it will act as an air pump and pump out air when the water supply is exhausted, this current of air passing down through the earth would probably take with it about as much moisture in its course as the same amount of air would pick up from a wet street while passing through it, and, considering the limit of a pump to be about one cubic foot per
4361 minute, I think less than one teaspoonful would be gathered by this process in twenty-four hours.

Q. 18. But how would the air get to the pump?

Ans. It would get to the pump through the pores of the earth through its own specific gravity in precisely the same manner that the water would get there, except that it would penetrate strata more readily than water.

Q. 19. How large a hole would be required to supply such a pump as you have mentioned with all the air it could pump?

Ans. I have found, by reference to authorities, that an aperature equal to the one-hundredth part of a square-inch area will transmit one cubic foot of air per minute under an applied pressure of eight ounces to the square inch.

Q. 20. But suppose the pressure or gravity of the air to equal fifteen pounds to a square inch, which is the normal atmospheric weight at the sea level, and suppose you were creating a vacuum or a parcial vacuum in the pump tube in the way you have mentioned, how large an aperature under such circumstances would be required to supply the air that the pump would exhaust?

Ans. In my last answer, in describing the size of the aperature, I gave the size which would be necessary in case of a tendency to vacuum to the amount of the one-thirtieth part of a vacuum pressure. Of course, as we approach nearer to a perfect vacuum a smaller aperture would be sufficient.

4362 Q. 21. How could you or anybody else construct a well in the ground so perfectly air-tight that there would not be aperatures ag-regating the hundredth part of an inch immediately around the pump tube?

Ans. I know of no possible method of compacting the earth about a well air-tight except by complete saturation or flooding with water.

Q. 22. If the water is removed, then, away from the bottom end of the pump tube by pumping, what would be the effect of further pumping after you had removed the water down to and below the bottom of the pump tube?

Ans. If the soil was compacted so tightly as to dam off a further supply the result would simply be the expansion and contraction of the vacant space below the pump as the piston-rod moved up and down.

Q. 23. I do not think you quite understood me. You say that the only way to make the earth tight is by saturating it with water. Now, I am supposing this water packing to be removed by pumping—that is, the strata of water immediately around the pump tube is lowered until it is below the pump tube, so that a colum- of unsaturated earth would stand all around the pump tube down from the surface of the ground to the lower end of the pump tube. Under such circumstances what effect would further pumping have?

4363 Ans. When the water became exhausted at the bottom of the pump tube the water remaining in the pump tube would continue on into the pump barrel or cylinder, and the last stroke of the pump, after exhausting the last of this, would drop back with a sudden jerk into the empty space between the two valves and cushion upon the air confined therein.

Q. 24. How much of a vacuum would be produced at the lower end of the pump tube, under such circumstances, by further pumping?

Ans. None whatever.

Q. 25. Why not?

Ans. Because the air could reach it so freely that a vacuum would be impossible.

Q. 26. In the same ten-acre field, and penetrating the same water-bearing stratum, suppose two wells, one a driven well and one a bored well, both lined with tubes and supplied with pumps, which would furnish the most water, in your opinion, in a day's pumping?

Ans. I think the bored well would produce the most water, if there was any difference.

Q. 27. Suppose a common well or a hole three feet in diameter were dug down three feet below the water level, and in the same ten-acre field a drive well constructed, both wells supplied with pumps; now, which well would, in your opinion, produce the most water in a day's pumping?

4364 Ans. I think, in most all cases, the open well of equal depth would produce the most water.

Q. 28. Recurring to the previous comparison between the driven and a bored well, why do you think the bored well would have the advantage over the driven well in water-yielding capacity?

Ans. Because in a driven well the earth is somewhat compact throughout the whole length of the well bore. This, I apprehend, obstructs the passage of the water in its natural course through the earth to the well bottom.

Q. 29. This would be a very trifling difference, would it not, Mr. McGaffey, scarcely worth mentioning, except as a matter of theory?

Ans. I think it is all a matter of theory about this difference between any of them.

Q. 30. What do you think about this vacuum theory anyway that — has been so much talk of in connection with these drive wells and vaunted as an advantage that they possess over common wells?

Ans. I have pondered upon this subject at length, and, while I must admit it has a theory, I have thought in vain to determine its force, substance, or effect; and, while I can easily measure the speed of the sun's light, I know of no method for determining the size of this vacuum or its practical beneficial effects.

4365 Q. 31. Do you mean by that that you are of opinion that a drive well will produce more water than a bored well under any circumstances?

Ans. I am of opinion that it will not produce any more. I think this vacuum is as common to the one as to the other and of equal force and utility.

Q. 32. Does not the amount of water pumped out of a well depend upon the amount that seeps of its own gravity down through the earth to the bottom of the pump in every case?

Ans. Most certainly in farm wells, except fountain wells.

Q. 33. Do you also except drive wells as well as fountain wells?

Ans. I mean to include all kinds of farm wells, except fountain wells.

Q. 34. In pumping these drive wells I have noticed that sometimes the water ceases to flow from the pump spout and the handle flies back in an elastic manner as though a vacuum were being produced or as though I were pumping against a vacuum. Now, perhaps the court has noticed this also, and I should like to have you explain the cause of that; and if there is a vacuum, whereabouts does it exist, and what effect it would have on the flow of water to the well.

4366 Ans. This action of the common pump has been familiar to me since my earliest recollections of a pump, and it is also familiar, probably, to every housewife or kitchen maid who has had occasion to use a cistern pump that would occasionally run dry. It is generally caused by the water supply failing at the bottom of the tube, and when the last stroke of the cylinder valve carries up the last of it there remains no water between the two valves to check the column of water which is above the upper valve from falling back into the empty space. It will commence its downward course if the handle is released (suddenly); this will close the lower valve so as to confine the air within the pump cylinder, so as to form a cushion which contracts and expands as the pump handle is allowed to drop, or if the lower valve should get caught open the whole weight above it would suddenly fall back the length of the stroke; but if there is water in the pump cylinder between the valves the water above is intercepted by the lower valve when the pump rod takes its downward plunge, the valve floating, as it were, in the water, requiring to be moved down by a sufficient force to overcome the friction of the valve, and in this case or in the first described case

~~[illegible]~~

Agriculture

Plate XXXVII

Borers

No. 1

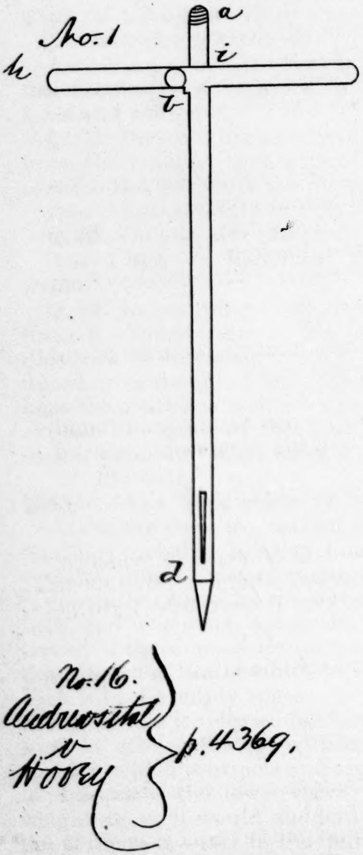
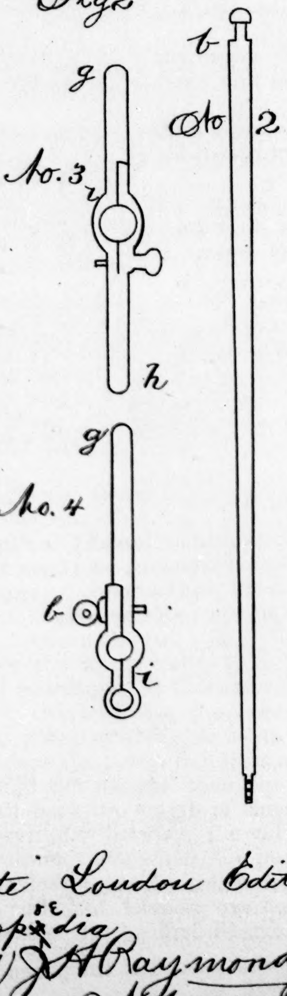


Fig 2

No 2

No. 3

No. 4



No. 16.
Andrews et al
v
Hovey
} p. 4369.

From Vol. 1 of Plate London Edition
of Rees Encyclopaedia
(Sgd) J A Raymond
Notary Public

there is no vacuum, but it is compressed air that gives this elastic feeling to the handle of the pump.

4367 Q. 35. Please examine the books which I have just shown to complainants' counsel and state their general appearance as to age.

Ans. They appear to have been printed many years ago, from the style of type and character of the paper and general appearance.

Q. 36. Will you please read the title page of one of the volumes and state whether it is the same in all?

Ans. The Cyclopædia or Universal Dictionary of Arts, Sciences, and Literature, by Abraham Rees, D. D., F. R. S., F. L. S. S., American Society, with the assistance of eminent professional gentlemen; published in London, England, 1819, &c., &c.

Q. 37. I hand you a printed page, purporting to contain extracts from the volumes above referred to. Have you compared the printed matter with the volumes?

Ans. I have; word by word.

Q. 38. Excepting the extracts from McKenzie's Five Thousand Receipts on the same page, are the printed extracts correct?

Ans. They are, with the exception of five words, which I have corrected with a pen, on fourteenth line from the top.

4368 Q. 39. With this alteration the matter is a correct copy from the originals, is it?

Ans. It is.

Q. 40. Have you found in one of the volumes, viz., volume one of plates, the illustration referred to in the extracts?

Ans. I have.

Q. 41. I hand you a piece of paper with a pen sketch upon it and ask you if that is a correct representation of the illustration referred to.

Ans. I find it is a correct representation, excepting it is a roughly-drawn copy.

The printed page referred to by the witness is offered in evidence, to be marked Defendant's Exhibit "Extracts," and the pen sketch is also offered in evidence, to be marked Defendant's Exhibit "Drawing in Rees' Cyclopædia."

Q. 42. Could you from the information contained in Rees' Cyclopædia above referred to construct a well?

(Here follows diagram marked p. 4369.)

4370 Ans. I could; I think the description is very clear and full.

43 Q. What process in general terms would you be employing when you constructed a well according to the instructions given in Rees Cyclopædia, referred to?

Ans. Precisely such a process as is described in N. W. Green's reissued patent No. 4372.

44 Q. Do you know whether or not the cyclopædia referred to is a rare or common book at the present day, and whether it is easily

obtained or not? And also state who owns the volumes which you have examined this morning.

Ans. I could not testify as to how common they are in use; I find these volumes in the possession of Mr. Geo. Payson.

Counsel for defendant states that Mr. Payson is unwilling to impound the volumes referred to in this cause as exhibits, and hence the method pursued of proving extracts from them.

4371 Cross-examination:

X Q. 45. Have you ever testified in any case where the complainants in this cause or Nelson W. Green was interested as complainant or defendant?

Ans. I never have.

X Q. 46. Are you or have you ever been in any manner interested in the patent referred to in this case, viz., N. W. Green's patent?

Ans. Not in the slightest degree.

X Q. 47. Have you ever had any practical experience in making of driven wells?

Ans. I have not.

X Q. 48. Then you are called and do here testify only as an expert?

Ans. I am and do testify as an expert.

X Q. 49. Have you ever constructed a driven well?

Ans. I never have.

X Q. 50. Have you ever been present during the making of a driven well, and observed the manner in which they are made?

Ans. I will answer, not when just such wells as described in Green's patent were being made, but was present in the oil regions in Pennsylvania, Titusville, where large iron tubes were driven into the ground through the soil to the rock. This process consisted of drilling the dirt from the center of these iron tubes, 4372 and then crowding them down until rock was reached. This formed the well through the earthy portion of the depth of the bore, so that a tube could be inserted and removed through these iron cylinders or pipes and the-, continuing, bore through the rock.

X Q. 51. What were these wells that you have described in Pennsylvania used for?

Ans. Pumping oil and water from the ground.

X Q. 52. In the location where you have described the last well what was the formation as far down as these wells were sunk?

Ans. It was what might be termed drift soil, containing loam, sand, and occasional rocks, to a depth of forty to sixty feet in some cases.

X Q. 53. Was there anything to prevent the pressure of the atmosphere through the earth on the water or oil in the well pit you have described?

Ans. In the Pennsylvania oil regions the oil was found deep in the rock many hundred feet down, but to make the bottom of the well more air tight or to exclude the water from the upper portion of the earth reaching the well bottom a flax-seed bag was fixed

around the well tube at such point as it was desired to shut off the upper portion; this solid rock and the flax-seed bag did ex-
4373 clude the air from the bottom of the well, together with the water packing.

X Q. 54. Then am I to understand that the air would not penetrate the rock, bag, and packing at all, and that there was no atmospheric pressure at all on the water or oil in the well pit?

Ans. No, sir; you are not to understand that; there was always a pressure of gas and, I presume, some air was in the ground.

X Q. 55. Now, please explain what you understand the reissue patent number 4372, issued to Nelson W. Green, covered.

Ans. I construe it to cover all methods of forming a well by driving down either a solid rod or a pointed tube.

X Q. 56. When was your attention first called to the driven well, and how extensive an examination of the principles governing this method have you made?

Ans. My attention was first called, I think, in 1865, at the town of Coldwater, Michigan; I have noticed a variety of patents for the different kinds of bottoms or points to the tubes of these wells, and have kept generally posted about any change and their general use without any special interest in the matter.

X Q. 57. Give the date, as near as you can, of the first patent you are aware of covering the point or bottom to the driven wells.

Ans. I think the date is 1864; James Suggett's patent, No. 42126.

4374 X Q. 58. Have you ever made or witnessed any experiment made to ascertain whether there was any difference in the flow of water from a driven well or an open well?

A. I have not.

X Q. 58½. Suppose a box should be made four feet in length, two feet *in* wide, and three and a half feet deep; into one end of this box was placed a cylinder of perforated brass six inches in diameter nearly the depth of the box; then suppose the box to be filled to the depth of about thirty inches with sand, outside and around the cylinder, so placed, which was about six inches from one end of the box, filling the entire box, except the inside of the cylinder, with sand. The cylinder so placed represented an open well lined with perforated brass from top to bottom; water was then poured upon the sand until it was saturated and a small amount left standing on the surface of the sand; the water entered freely through the holes in this cylinder and filled it. Then suppose two small hand pumps of precisely the same size and style and make were attached to a working valve-rod of each pump to a working lever equidistant from its centre, which was pivoted to a stationary upright, and to each of the pumps was attached an iron tube of the same size, having each at its lower end a point, technically so called, six
4375 inches in length, made of perforated brass, of the same character, size, and number of openings to the square inch as was the lining of the open well, as described; in the bottom of each of these points, as described, was a metal point fastened, and the upper end of each perforated point was attached to the lower ends of the

respective tubes, each pump tube and point being a perfect *fac-simile* of the other; these pumps were then attached to a single plank, through which their suction pipe passed downward; there was then inserted simultaneously the one tube into the open well, which was full of water and contains no sand, and the other directly into the solid sand at the same distance from the other end of the box as was the centre of the open well from its end of the box; then suppose each pump to be operated simultaneously, each having the same stroke and capacity, and in about one minute all the water in the open well was pumped out, the water from both pumps being discharged back upon the sand, insuring a fully supply to each well according to its capacity; after emptying the open well the pumps were timed in operation; the one having its pipe tightly inserted into the sand saturated with water was continued in operation for several
4376 minutes without the least apparent diminution in the amount
of water it delivered, while the pump in the open well did only deliver an occasional spoonful after the well had been first emptied, as before stated, in about one minute. Now, please state what was the cause of the greater delivery of water from the driven well than from the open well?

Ans. The reason is very obvious to me, and I will remark in this connection, by way of explanation, that this result is exactly the reverse of what it would be in a deep well or one of ordinary proportions.

This well is so shallow, and the soil so completely saturated and flooded, that a continuous connection between the water and air pressure is maintained throughout the mass to the well bottom in the case where the tube is not surrounded by the outer, perforated cylinder. This perforated cylinder forms a dam for the dirt so that it cannot come in contact with the pump tube, and the fact that the water will move more freely through this space between the cylinder and pump tube it becomes the thoroughfare for the water, and, owing to the fact of its limited height, water enough does not, of its own pressure under this limited height, keep up a supply; there-
4377 fore an air space is formed around the pump tube in a soil
completely saturated, a state of facts that could not possibly exist in any farm well. Of course, under these circumstances this single tube well would tend to form a vacuum at the bottom of the tube, and in this case it would hasten the water toward the bottom of the pump tube.

X Q. 58. Then suppose, without making any change whatever, either in the pumps, pipes, box, or lining of the open well, that the open well or cylinder should be filled with sand, which was compacted tightly around the tube which was inserted therein, the only real difference then existing between the two pumps, pipes and wells, being that the pipe in the open well was, while surrounded with sand compact against it, still further surrounded by the perforated brass cylinder through which and from which the pump with its pipe in that well had only received its supply, which, coupled with the amount of water in the well itself, supplied the pump for but one minute; then suppose the two pumps were again operated each in

like manner and the supply of water from each well was continuous
and equal. Now, please state the cause of the change in the capacity
and operation of these wells as now represented from the result
4378 stated in the last preceeding question, and state what principle operates to produce this change.

Ans. In both cases as last given the pumps would necessarily operate alike, and I must admit that the property of a tendency to a vacuum exists equally in both of them and would exist the same in all pumps; whether the wells were bored or driven, they are in fact operating exactly the same as they would if the lower end of the tube was continued and bent upward and the water pumped from the spout into the open end so bent and turned upward.

X Q. 59. Now, suppose a well to be dug in a field "where the formation is loam, sand, and gravel" twenty feet deep, two feet in diameter, walled up in the usual way, and that there is six feet of water in the bottom, and suppose a hollow tube to be placed in this well with its point reaching into the water and to within three inches of the bottom of the well, shod with a perforated point or with perforations in its sides extending three feet up from its lower point or end, with a wire screen covering said perforations so that the water could pass freely into this tube or pipe, and a pump attached to the top of this tube, making an air-tight connection throughout its entire
length, leaving the well open outside of the tube from the top
4379 of the water to the surface of the ground; now, suppose a rod
to be driven into the ground twenty feet distant from this
well described to the depth of where the point reaches in the open well described, this rod withdrawn and a hollow tube, with a point and in all respects similar to the one described in the open well, put in the said hole, from which the said rod is withdrawn, and its point reaching to the exact depth in the water-bearing strata as the one described in the open well, with the earth packed tight around the tube its entire length above the perforations in the point or end; then suppose a power be employed on each *a* pump equally capable of utilizing the capacity of said pumps; which pump or well, in your opinion, would throw the greatest quantity of water in, say, twenty-four hours?

Ans. Assuming that the earth is packed tight around the tube last mentioned, I think, under certain cercumstances, I am inclined to think this kind of well would yield some more water than an open well, although I think there would be very little difference between the two wells described in the question.

X Q. 60. How long would it take an ordinary pump operated to its full capacity to exhaust the water in the open well described?

Ans. Probably about an hour, without taking into account
4380 the continuous seeping in, but I am inclined to think in sandy
soil it would seep in nearly as fast as an ordinary pump would
pump it out. This would depend upon a variety of circumstances.

X Q. 61. Then suppose the well referred to to be located in a level country and the condition of the soil to be the average condition as to rains or wet; then suppose a pump of double the ordinary capacity should be employed; about how long would it take to exhaust the water in said well?

Ans. It might be two hours; it might be a day; I could not tell.

X Q. 64. Then I am to understand that there would be no material difference in the productiveness of the two wells described—that is to say, that the open well would yield about the same continuous supply of water as the driven well described? Please answer this question with reference to the circumstances and surroundings described in questions 59 and 61.

Ans. It is my opinion there would be no material difference between the two wells above referred to in their productive capacity.

X Q. 63. I think you have stated that you have had no practical experience in making wells, except the oil wells you have referred to in Pennsylvania. Is that correct?

4381 Ans. It is so in reference to drive wells. I have made dug wells, put pumps in them, handled and sold pumps, and am familiar with their use and operation in connection with wells.

X Q. 64. Now, suppose a glass jar is made ten inches in diameter, fifteen inches high, with the top prepared with a neck, upon which is fastened a small pump tube one and a half inches in diameter, with a point perforated similar in form to the one described in question 59, and air-tight and extending down to the bottom of said jar, the said jar having small holes in the sides to the distance of three inches from the bottom, with a small pump attached to the said tube. In the top of this jar and outside of the tube described there is a vent or small hole. Now, suppose this jar to be set in a tub of water, with the water six inches deep; then suppose this pump is worked or operated with the hole in the top of the jar uncovered, so that the air can pass directly into the jar and reach the top of the water, and the pump then operated so as to exhaust the water in the jar in one minute, and then suppose the hole in the top of the jar is closed tight, so that no air can reach the top of the water inside the jar, and the pump worked continuously, discharging the water in the tub outside of the jar without exhausting the supply; now, please state what, in your opinion, is the principle which operates to produce these results.

4382 Ans. In the case in which the air valve at the top of the jar is closed I recognize the old-fashioned, old reliable, what is termed suction principle, common to all pumps, without reference to that kind of suction supposed to especially pertain to the Green patent. When the air valve is open at the top, the water being exhausted faster than the perforations at the bottom of the glass tube will readily admit it, the connection is broken between the water in the pump cylinder and that in the tub outside of the glass jar on account of the air being allowed to intervene through this surrounding air space in the jar; this connection cannot be broken in the first instance until all the water is exhausted.

X Q. 65. Now, is it not a fact that in the case of the two wells described in question 59 the open well is in all respects governed by the same forces and principles of natural law as the well made with the jar with the vent open, and does not the driven well represent and is it not in all respects similar to the well made with the vent in the jar closed—that is, so far as any forces or natural laws governing the movements of air and water are concerned and employed?

4383 Ans. I do not think it represents at all any possible natural conditions. The propositions are so distorted as to entirely change and reverse natural results and tend to mislead the judgment. This glass jar I conceive to be an exact model of an open well of about four feet in depth, plastered up and cemented on all sides, water-tight, excepting very small aperatures at the bottom, and in such case no water could seep in at the sides, but it must necessarily percolate down throughout the whole depth of the strata to the bottom of the well before it could enters the pump tube. This would be a fair representation, perhaps, of a driven well, if it is admitted that in driving down the rod the earth becomes compact around the pump tube, water-tight and air-tight. As to the driven well represented by the model described, I do not think it is a fair representation of the driven well or a bored well, for neither of them are, in my opinion, ever air-tight, as this jar is, nor do I think the one that is driven is any nearer to air-tight around the pump tube than a common bored well.

X Q. 66. Do you understand that one of the essentials claimed by Green for his driven well is that the earth must be packed air-tight and water-tight around the well tube?

4384 Ans. I do not think that it ever occurred to Green, as an inventor, as to whether the earth was more or less compact about the tube or that this was any part of his invention.

Ans. I find nothing in the patent on this subject of compressing the earth.

Q. 67 repeated.

Ans. I do not understand that Green or his attorneys or experts do associate this compacting of the earth around the well tube as an essential element of the patent.

X Q. Do you understand that Green or his attorneys or experts claim that the earth must be packed around the tube air-tight and water-tight.?

Ans. I judge so from the nature of the suppositi-ous models to which my attention has been called in this cross-examination, for in all cases the Green well has been represented with an air-tight surrounding. If it was not intended to be represented as air-tight those supposit-ious experiments and conclusions would be erroneous.

4385 X Q. Are you connected with any interest adverse to the complainants in this action or in any way connected with any interest that might prejudice you against the claim of the patentee in any State?

Ans. I am not, but, upon the other hand, have an inventor's sympathy, for I am now and have been for the last two years vigorously fighting the infringers of my own patents, to wit, hose reels and hose nozzles.

(S'g'd) IVES W. McGAFFEY.

4386 (From vol. 5, London Ed. of Reese's Cyclopædia.)

Borer in Rural Economy.

An implement invented for the purpose of searching or exploring the nature of soils.

This instruments is composed of two rods of iron, each six feet long and an inch in diameter. The end *a* of Fig. 1 in draining implements screws into the end *b* of Fig. 2 after taking out the stopper *c*, the use of which is to hinder dirt or dust from getting into the screw. The screw is an inch and a half long and three-quarters of an inch in diameter. *d*, Fig. 1, is a steel point, somewhat blunt, to pierce the earth or any substance it may meet with.

It should be about three inches long and made with three, four, or more sides, as may be thought most convenient.

4387 It is screwed into the rod A in the same manner and with a screw of the same size as A is screwed into the rod *b*. It has a groove six inches long, a third of an inch wide, and three-quarters of an inch deep, rounded in the bottom and intended to bring up part of each different layer of materials through which it passes.

When springs are sought for a bit of sponge is put into the groove.

At the end of the rod Fig. 2 is a screw to fix into another rod of the same kind, if it be found necessary, to lengthen the instrument, and this may be repeated by the addition of more rods to any depth desired. *g h*, Fig. 1, is the handle to this instruments, two feet and a half long.

4388 This handle is fastened to the rod by means of a clasp, *e*, lined with steel, fixed at one end by a hinge and at the other by the screw *b*, so that it may be placed at any height. Fig. 3 is the handle separated from the rod and marked with the same letters as before. Fig. 4 is another handle, or rather lever, like the handle already described, except its having only one branch or lever, marked *g*; this serves to stop the borer in bringing it up from a considerable depth, and also screw and unscrew the several joints as occasion requires, and to put on and take off the steel point at the bottom. The handle *g h*, Fig. 1, is that by which the rod is held and wrought into the earth either by twisting it round, especially at first
4389 or after it has penetrated to some depth, by lifting it up and letting it fall again, which it does with such force as to pierce even the hardest rocks, especially if it works at considerable depth and has, of course, been lengthened accordingly, for every foot of this rod weighs three pounds. Two men will easily sound the depth of twelve feet in less than a quarter of an hour if they do not meet with many stones. When the rod becomes too heavy to be properly managed by hand it may be raised by a rope fastened at one end of the handle and at the other to a roller or kind of windlass, erected at a proper height perpendicularly over the hole, and turned
4390 with either one or two handles. This will cost but a trifle and easily raise the rod, which when let go will fall with such

weight as to strike each time very deep into the earth. The Marquis De Turbilly observes that he has seen it wrought in this matter to the depth of more than a hundred feet. * * * A bit like that of an augur, proportioned to the thickness of the rod, may at any time when necessary be substituted instead of the steel point to draw up a sample of the substance from the bottom of the sounding.

"*Spring Draining Pump.*"

From vol. 33 of the London Ed. of Reese's Cyclopædia.

"That sort of a contrivance of the pump kind which is made use of for the purpose of detecting and ascertaining the nature,
4391 situation, and direction of underground springs and collection of water, as well as in some measure the nature and position of the different substrata of land before the work of cutting and forming the drains for taking off injurious wetness is begun:

It is constructed of copper in the pipe form in a very simple and cheap manner, so as to admit of being put down into the ground in holes form*ing* by the boring augur, and by being made to be wrought as a pump is capable of showing the presence of water where the pressure of it in the higher ground is not sufficient to force it up through the augur holes, which is the case in many instances.

The nature and direction of under strata are in some degree
4392 found in boring and putting the pump down through them.

It is the invention and discovery of Mr. Wakefield, who has been long much engaged in the practise of draining in several different places and parts of the kingdom. See Spring Draining. * * *

This is a contrivance which, with the boring rod, would seem to be capable of being of very great importance in the business of spring draining."

"*Well in Rural Economy.*"

From vol. 38 of the London Ed. of Reese's Cyclopedia.

"As the expense and trouble of digging and getting up the materials in these cases are considerable, other means have been had recourse to in order to lessen or prevent them.

The most ingenious of these is that proposed by a French
4393 philosopher, who has advised that the ground should be perforated to a sufficient depth by means of an auger or borer, a cylindrical wooden pipe being then placed in the hole and driven downward with a mallet. * * * It is stated that wells made in this manner are superior to those constructed in the common method, not only in point of cheapness, but also as affording a more certain and abundant supply of water, while no accident can possibly happen to the workmen employed.

In case the water near the surface should not be of good quality the perforation may be continued to a still greater depth till a purer fluid can be procured, and when wells have become injured or
4394 tainted from any circumstances or accident, when previously emptied and the bottom perforated in a similar manner, so as

to reach a lower sheet of water, it will rise in the cylindrical tube in a pure state in the body of the pump fixed for the purpose of bringing it up.

To Raise Water in All Situations.

From McKinzie's 5,000 Receipts.

The finest springs may be formed by boring, which is performed in the simplest manner by the mere use of an iron rod forced into the earth by a windlass. The workman in a few days get to a genuine spring of pure water fit for every purpose.

After the water is found they merely put tin pipes down the aperture and it preserves a fine stream, which sometimes rises from four to five feet high.

Extracts.

J. H. RAYMOND,
Notary Public.

4395 *"Well in Rural Economy."*

From vol. 38 of Reese's Cyclopedia, London edition of 1819.

As the expense and trouble of digging and getting up materials in these cases are considerable other means have been had recourse in order to lessen or prevent them. The most ingenious of these is that proposed by a French philosopher, who has advised that the ground should be perforated to a sufficient depth by means of an auger or borer, a cylindrical wooden pipe being then placed in the hole and driven downward with a mallet and the boring continued that the pipe may be forced to a great depth, so as to reach the water or spring. It is stated that wells made in this manner are much superior to those constructed in the common method, 4396–4398 not only in point of cheapness, but also as affording a more certain and abundant supply of water, while no accident can possibly happen to the workmen employed.

In case the water near the surface should not be of good quality the perforation may be continued to a still greater depth till a purer fluid can be procured, and when wells have become injured or tainted from any circumstance or accident when previously emptied and the bottom perforated in a similar manner so as to reach a lower sheet of water it will rise in the cylindrical tube in a pure state into the body of the pump fixed for the purpose of bringing it up.

4399 TUESDAY, *Feb. 24th, A. D.* 1880.

Met pursuant to adjournment, all the parties present.

D. C. BACKUS, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

Ans. My name is D. C. Backus; age, 50 y'rs; reside in Independence, Iowa; occupation, piano tuner.

2. How long have you lived in Independence?

Ans. Ten years last December.

3. Where did you reside before you resided in Independence?

4400 Ans. Cazenovia, New York State.

4. How long did you reside there?

A. 40 years.

5. Did you ever own a book entitled Livingston's Travels and Researches in South Africa?

Ans. I did.

6. Do you now own that book, and have you it here with you?

Ans. I do, and it is here.

7. Will you turn to the title page of the book and give to the commissioner the heading and the person by whom it purports to have been published and the date of its publication?

4401 Ans. The heading is as follows: "Missionary Travels and Researches in South Africa, including a Sketch of 16 Years' Residence in the Interior of Africa and a Journey from the Capes of Good Hope to Loanda, on the West Coast; thence across the Continent down the River Zambisi to the Eastern Ocean." By David Livingstone, LL.D., D. C. L. Published by Harper and Bro., Franklin Square, New York, 1858.

4402 8. When did you first obtain this book, of which you have just given the title page?

Ans. 25th day of Dec., 1858.

9. State when you obtained it, whether in open market or by some private means.

Ans. It was a Christmas present from my wife.

10. Was this book and books of the same *add*ition in general circulation at that time, to wit, Dec., 1858?

4403 Ans. Well, there was none in our town at that time at the book-sellers; they had to be sent for.

11. How came you to know of the book?

Ans. Well, I had been away from home and saw one that had been got by some one; don't know just who it was; they said it was just out, and I came home and spoke about it.

12. Have you had this book in your possession ever since Dec., 1858?

Ans. I have.

4404 13. You may now turn to page 59 of that book and read to the commissioner, so that he can copy the same, the statement there made in regard to the method used by the Bakalahasi to get water out of the ground.

Ans. The dread of visits from Bechuanas of strange tribes causes the Bakalahori to choose their residences far from water, and
4405 they not unfrequently hide their supplies by filling the pits with sand and making a fire over the spot. When they wish to draw water for use the women come with 20 or 30 of their water vessels in a bag or ne*tt* on their backs. These water vessels consists of ostrich egg-shells, with a hole in the end of each such as would admit one's finger. The women tie a bunch of grass to one end of a reed about 2 feet long, and insert it in a hole dug as deep as the

same will reach; then ram down the wet sand firmly round it; applying the mouth to the free end of the reed, they form a vacuum in the grass beneath, in which the water collects and in a
4406 short time rises into the mouth. An egg-shell is placed on the ground alongside the reed, some inches below the mouth of the sucker; a straw guides the water into the hole of the vessel as she draws mouthful after mouthful from below; the water is made to pass along the outside, not through the straw. If any one will attempt to squirt water into a bottle place- some distance below his mouth he will soon perceive the wisdom of the bushwoman's contrivance for giving the stream direction by means of a straw; the whole stock of water is thus passed thro' the woman's mouth as a pump, and when taken home is carefully buried. I have
4407 come into villages where, had we acted a domineering part and rummaged every hut, we should have found nothing; but by sitting down quietly and waiting with patience until the villagers were led to form a favorable opinion of us a woman would bring out a shell full of the precious fluid from, I know not where.

14. After you got this book in Dec., 1858, and up to 1861, were books of that kind in general circulation in the vicinity where you lived?

Ans. I never saw any but this, except a much smaller edition abridged.

X:

Int. 1. How do you remember the date when you obtained
4408 that book?

Ans. Being the 2nd year after I was married; married in 1857.

2. You say this is the only copy you ever saw?

Ans. No, sir; I said it was the only copy I saw between 1858 and 1861; I saw a copy before I saw this one.

3. Did you not say this was the only copy you had seen, except a small edition?

Ans. No, sir; I did not.

(S'g'd) D. C. BACKUS.

Subscribed and sworn to before me and in my pres-
4409–4424 ence by the above affiant this 24th day of Feb., 1880.

(S'g'd) FRANK JENNINGS,
Notary Public.

4425 In Circuit Court of the United States for the District of Iowa.

W. D. ANDREWS *et al. vs.* GEORGE HOVEY.

In pursuance of adjournment I met at the office of Lake & Harman on Monday, the 23d day of February, 1880, to take depositions of def't's witnesses. Lake & Harman appeared for the defendant and Rickel, West and Eastman appeared for pl'ffs, and I then and there proceeded to take said testimony.

George Hovey, being produced, sworn, and examined on the part of the defense, deposes as follows:

Int. 1. What is your name, age, residence, and occupation?

Ans. My name is George Hovey; am sixty years old; reside at Buchanan Co., Iowa; am engaged in the well business.

2. How long have you resided in Buchanan Co., Iowa?

A. Twenty-four years.

3. What has been your occupation since you resided —?

A. Farming and well business.

4. How many years did you follow farming and how many years had you been in the well business?

4426 A. I farmed some fourteen or fifteen years, and somewhere about nine years in the well business.

5. While you was farming in this county did you reside all the time on the same farm?

A. I did.

6. Do you still own that farm?

A. I do.

7. Are there any wells on said farm; and, if so, how many, and how are they constructed?

A. I have three there now; one at the house is dug and stoned up fourteen feet; then I had it drilled forty-two feet; part of it is in clay and part in rock; then a ten-inch tube, ten inches in diameter, put in from the bottom of the old well to the rock; I think I went in the rock six feet, and then I had plenty of water; I put in an inch and a quarter gas pipe, attached it to a pump, built a platform over the top of the well, screwed the base of the pump onto the platform. There is no screen *of* the lower end and it don't go to the bottom where it is drilled. I have another well at the barn; I think about eleven feet deep; stoned up; generally plenty of water; there is no pump in that. I had another well made in the pasture this fall, dug and stoned up twelve or fourteen feet, with a pump and pipe same as the house well; pump is fastened to the platform.

8. Have you owned any other place in Buchanan since
4427 you lived in said county than this farm?

A. I have.

9. State where it was; give the description, as near as you can, and when and how long you owned it.

A. It is a lot in Independence, near Mr. Cobb's, where I now live; it is one-half acre; it joins Mr. Bemis on the north, and is south of E. Cobb's, on Division St.

9½. What kind of a well, if any, have you on that place?

A. It is a dug well, and stoned up, and then there is a ten-inch tube in the centre; after you get down in the water some three feet there is an iron gas pipe attached to the pipe and put into that.

10. Are these wells that you have described all the wells you now own or have owned since 1870?

A. No; I have had a well or two in my pasture that had caved in; they are not in running order now.

11. State how those were made.

A. One was made by a ten or fourteen inch auger bored down fourteen feet and tubed up with fine tubing; another was dug down about ten feet, curbed up with boards, but caved in.

12. You state in one of your answers that you have been in
the well business "about nine years." You may state what
4428 kind of wells you make and how you make them, giving a
concise description of the method you use.

A. We dig down about five feet a hole about three feet square; then I take a three-inch auger and bore down to and into the water as far as I can; then I take a piece of gas pipe an inch and a quarter in diameter, put on what we call a drive-point, as is shown in figures No. 1 of E. S. Hovy's patent, and put that down in the hole; then we take a dirt pump or pitcher pump and screw onto this gas pipe, and clean out the fine sand and the fine dirt from the sand; then we withdraw that tube, take a rod, inch and a quarter gas pipe generally, and attach a fine wire-cloth screen to said pipe; put that down into the hole down to where we have cleaned to the proper depth; then we attach a pitcher pump to this pipe, pump till it gets clear; then we take off the pitcher pump from the pipe and attach a common anti-freezing pump, make a box and box up the hole; then we put on our platform—fasten our pump to it.

13. Have you seen and read the specifications and drawings attached to reissued number 4372 patent, issued to Nelson W. Green, under date of May 9, 1871?

A. I have.

14. Did you ever try to make a well in the method described in that patent?

A. I have.

4429 15. State when and where you undertook to make a
well by that method.

A. The date I could not state; I think it was in June, 1879; it was on the corner lot on Main street, next west of Mr. Goodwin's, in Independence, Iowa.

16. State what you did in trying to make that well, and what the result was. Give the particulars.

A. We drove down a pointed rod from the top down, adding pieces of pipe as we went down to lengthen it till we went into the water-bearing strata four or five feet; then we pulled out that rod (which was an inch and a quarter); then we took a piece of gas pipe, one and a quarter inch, made slightly smaller at the lower end, with a few holes drilled in a foot or a foot and a half from the bottom of the pipe upwards; there was no plug in the bottom of the pipe; we put that down the same distance into about a foot; then we attached a pitcher pump to the upper end of the tube, primed it with water, pumped for quite a while, and could not get a drop of water from the bottom up to the pump. The sand and water started up the pipe five or six feet, and we could not raise it any higher. We took off the pump and pulled the pipe out, cleaned the
sand out of the pipe, and put it down again, and we did not
4430 succeed any better; it filled in the pipe and we could not get
any water; we took it out; we took another pipe of the same
length, put on a screen, and put it down and we pumped water.

17. Did you at that time and place try to make any other wells? And, if so, state if you tried to make any by the process, as you have heretofore stated in your evidence, as you generally used in making wells.

A. I did.

18. State now particularly how you made the well under that process; give the result of the same.

A. We bored down with a three-inch auger—down into the water-bearing strata—some four feet, I think, and took the dirt out. We then took an inch and a quarter gas pipe, put on the drive point, the same as described in figure one in E. S. Hovy's patent, and put that down to the same depth that we had bored; then attached a dirt pump and we pumped out the fine sand and fine particles of dirt; then we returned the rod and point. We attached a fine wire-cloth screen point with a plug in the hole in the bottom of the point. We put this tube and point into the hole the same depth that the first was down. We attached a dirt pump and it run very nice when we pumped it.

19. Did you at that time and place make any other experiments in regard to wells? And, if so, state fully and particularly what you did and what the result was.

4431 A. Yes; we bored down with a ten-inch auger into the water-bearing strata two or three feet. We put on a drive point onto an inch and a quarter tubing and put that down, and cleaned out the fine sand with a pitcher pump the same as before; then we withdrew the tube, put on a fine wire-screen point on the same tube and put that in the same depth, attached the dirt pump to the rod or tube and pumped; it pumped well.

20. How far apart was these different holes that you made in these experiments?

A. I think the first two were within three or four feet of each other; this last was, I should think, forty feet from these two.

21. State what the difference was in the yield of water in those different wells.

A. Those last two, as near as I can judge, run alike; they run very well; the first one we put in did not run as easy or give quite as good a flow of water.

22. State, if you know, why the first well did not give as good a flow of water and did not run as easy.

A. Because the fine stuff had not been pumped out from the coarser sand.

23. What effect would it have in the flow of water by leaving the finer matter in the coarser sand?

A. The fine matter would clog the screen; it would not run free.

4432 24. State whether or not the fine matter getting into the screen would prevent the flow of water.

A. It would.

Adjourned until 2 o'clock p. m.

2 O'CLOCK P. M.

Met pursuant to adjournment.

Parties all present.

25. Where was the place that you made this experiment with reference to the Presbyterian church of Independence, Iowa?

A. It is west to the corner of the first street going south.

26. How deep did you have to go before you struck the water-bearing stratum at that place?

A. We struck the water between nine and ten feet, I think.

27. What was the nature of the soil through which you went before striking the water?

A. Sand.

28. Was there anything mixed with it?

A. The first two or three feet was black loam mixed with it, then went into sand and gravel mixed.

29. Did you leave those holes there after you had made the experiments? And, if so, state how you left them.

A. We did; we put a large stone on top and covered them up.

30. Have you examined them since that time to see how the walls of the holes stood? And, if so, state how they was and when you examined them.

4433 A. I examined them the first time about two months after we left them; the large hole, when I took the stone off, I could see the water plain; the walls stood well; one of the small —, I could not see the water; I threw a stone down and could hear it splash in the water; the other small well, I did not hear the water.

31. Which one of the wells that you did not hear the water—the one you made by boring or driving?

A. The one that we drove down.

32. Did you drop a rock into that to see if you could hear the noise?

A. I did, but heard no water splash.

33. In making that well that you made by driving did you go any deeper to get to water than in the one you bored?

A. No, sir.

34. Have you examined these wells again since that time? And, if so, state when and what you found.

A. I have, about the time it froze up this fall; the large well I examined first; I took off a stone, but I could see no water, but the walls seemed to stand good; the other two wells seemed as though some one had meddled with them; the dirt had been dug out round the top and filled in some.

35. In how many different counties in this State have you made wells?

4434 A. I guess I have in seven; maybe more.

36. State what has been the character of the soil where you have made these wells.

A. Generally in sandy ground; the top soil would be loam and sand, and as you would go down it would be sand in the water-bearing stratum; is generally a fineish sand mixed with some coarse.

37. Have you had any experience with wells in that kind of soil where for any reason there was no screen over the holes in the tube; if so, what has been your experience? Give examples of the time and place where you found those wells and state how you found them, particularizing as to as many as you can.

A. I have not found — but what had screens on, to my knowledge.

38. Have you found any where the screens had got off the holes or where holes had got into the pipe?

A. I have.

39. What has been the result that has followed in such cases?

A. Sand would run in so that it would spoil the working of the pump.

40. How many cases of that kind have you met with in your experience?

4435 A. I found two here in Independence; I found one at New Hartford, where I had been putting in wells; the screens had been torn; I did not notice there had been a hole in them; one in Muscatine Co.

41. What effect did it have on those wells where the screens have become torn?

A. The fine sand would go in and fill it up and spoil it.

42. What part would it fill where it goes in?

A. Generally the suction barrel, sometimes the screen; more generally the suction barrel.

43. Now state what part of the pump you mean by the suction barrel.

A. It is that part where both valves are in the working part of the pump.

44. Now, state from the experience you have had in making those wells what would be the effect if a tube open at the lower end and a few holes drilled in the side and no screen over them should be used in making those wells?

A. It would fill the pipe with sand and would be of no use.

45. State whether or not in any of the places in Iowa, where you have made wells in Iowa, or tried to make them, a well could be made by using the process and implements as shown in the specifications and drawings attached to Nelson W. Green's patent, reissue No. 4372.

4436 A. No, sir; it could not.

46. State why it could not.

A. On account of the fine sand running in and filling the suction barrel and pipe so the pump would not work.

47. You may now give the names of the counties in Iowa where you have put in wells.

A. Buchanan, Blackford, Butler, Chickasaw, Fayette, Muscatine, Johnson, Louisa, and Tama.

48. You may state as near as you can how many different wells you have worked at during the time you were putting in these wells.

A. I had no idea.

49. I will ask you the question whether you have worked at more than a hundred.

A. I should think I had as many as a hundred or more.

50. Have you seen the drawings and read the specifications attached to the patent issued to Nelson W. Green and known as patent No. 73425, dated January 14, 1868?

A. I have seen them and read them.

4437 51. Now, state whether there is in such specifications any ambiguity in the description of the process by which he proposed to make wells, so that a well could not be made in the manner therein described by one skilled in the art of making wells.

A. I think any one skilled could make them

52. State whether or not there is in such specifications any purely scientific terms that are in themselves peculiar to any art or trade.

A. I don't see any.

53. State what is the particular claim patented as stated in the specifications to that patent, No. 73425.

A. It is by driving or forcing a rod into the ground to the water, then withdrawing the same, then inserting a tube in its place, made slightly smaller at the lower end, with a few holes from a foot to a foot and a half from the bottom up; attach any pump to the pipe and it is complete.

54. Is there any matter specified in there as covered by the patent? If so, state what it is.

4438 A. That is all, I believe.

55. What is to be done with the earth that is to be removed in making this hole?

A. Well, the earth would be pressed back. It don't state in this what is done with it.

56. State whether or not there is anything in that process but what could be done by persons with ordinary skill without any special training therefor.

A. No; there is not.

57. Would it make any difference in the displacement of the earth whether the rod was forced down by driving or by lifting it up and letting it fall?

A. It would not.

58. In what manner would the earth be removed by either of these processes?

A. It would be removed back from the pipe the same in both.

59. Now, state whether there is a difference in the process described in the specifications in the patent number 73425, dated January 14, 1868, and the process described in reissue letters patent, dated May 9, 1871, No. 4372; and, if so, state fully what that difference is.

4439 A. There is a difference in this May 9, 1871. It says in certain soils, preparatory to the inserting of a tube, the use of a rod is unnecessary.

60. In the reissue No. 4372 is there anything said in regard to what is done with the earth? If so, state what it is.

A. Yes; this invention is in producing the driving or forcing down an instrument into the ground until it reaches the water; the hole or opening thus made by a mere displacement of the earth, which is packed round the instrument and not removed upward from the hole, as it is in boring. The instrument to be employed in producing such a well, which to distinguish it from sunk or bored wells, may be termed a driven well.

61. Now, state whether either on this original or reissue there is any claim for utilizing atmospheric pressure.

4440 A. There is not.

62. State whether or not the pressure of the atmosphere on the water in the earth would be any different whether the pump was inserted into the water through a hole that was made by driving an instrument into the ground or a hole that was made by boring down to the water-bearing stratum and removing the earth upwards.

A. It would be the same in both.

63. State whether you have made any experiments to show what the difference is in the effect of the atmospheric pressure in the cases, as stated in the last interrogatory; if so, state what you did and the results.

A. I have made experiments on this same lot, near Mr. Goodwin's. We bored down with a ten-inch auger into the water-bearing strata; then we bored with a small auger (a three-inch auger) into the water-bearing strata; then we cleaned both wells alike, under one process. We put down drive-point No. 1, as described in E. S. Hovy's patent, with small holes in it, with an inch-and-a-quarter tube attached, so that when we put it in the instrument was four or five feet in the water-bearing strata. We attached a dirt pump to the upper end of the tube and pumped
4441 out the fine particles of dirt and sand; then we withdrew the pipe and point — attached the screen to the same tube or gas pipe; then put it down the same distance as it was before in the water-bearing strata, where we cleaned it out; then we attached a pump and pumped out water. They pumped just alike and threw the same capacity of water. We made a small hole in the pipe just above the water line. We tamped the earth around the pipe. We drove the pipe down so that it would be about a foot below the water. We pumped water and it run well—the full capacity of the pump. We again pulled the pump and pipe up about a foot and we tried to pump, but could get no water. It took air above the water. This hole in the pipe, I think, was two feet above the screen. Then we put it down a foot again and we pumped and water pumped freely. The moment that the pipe where the small hole was came above the water line you could not draw any water.

64. In making this experiment did you use more than one pump?

A. We did; we had two pumps.

65. How were these pumps in respect to each other in regard to their capacity for pumping?

A. Same capacity.

66. Did you have men operating both pumps at the same time?

4442 A. We did.

67. State what you did in regard to tamping the earth after moving the pipe up or down?

A. We tamped it each time that we moved the pipe in the small well; the bored well was open all the while.

68. What was the diameter of the well that you call the bored well?

A. Ten inch.

69. State whether you could look down into that well and see the water in the bottom of it.

A. I could and did, and saw the water.

70. Was there anything to obstruct the free passing of air down to and onto the surface of the water in that ten-inch well?

A. There was not.

71. In tamping the earth round this pipe that was put in the small well, state particularly what you did to make the earth tight.

A. Well, we tamped round with a stick and also a piece of gas pipe; then we took the maul and put some earth around it and pounded it down so as to make it tight; we poured water on and then put on more dirt and pounded it.

72. State whether you tamped the earth in this manner each time after removing the pipe up or down.

A. We did, each time.

4443 73. State whether at any time you placed the pipe so that the small hole you had made in it above the screen was just below the line of the water; and, if you did so, state what was the result in operating the pump when it was so placed.

A. We did place it just below and we pumped and drawed water; after pumping a short time it would take air and not pump its full capacity.

74. At the time you placed the pipe so that the hole was just below the line of the water what did you do in regard to tamping the earth round the pipe at the surface?

A. We did tamp it or had tamped it before we pumped at that time.

75. When the earth was tamped round the pipe and the pipe was down as deep as the pipe was in the ten-inch well, was there any difference in the flow of water from the two pumps or in the force used in operating the two? If so, state what it was.

A. I thought there was a little difference; I thought the open well pumped a little the easiest; the flow of water was about the same.

75½. How far below the pump was the small hole you made in the pipe?

A. I think about 11 feet.

76. In your making and repairing of wells have you had
4444 occasion to try them after the hole around the pipe had be-

come filled with dirt, so that the earth had become packed round the pipe?

A. I have.

77. State whether such a condition makes any difference in the flow of water from the well or in the force necessary to operate the pump; and, if so, state what is the difference.

A. I don't think there is much difference; don't know that there's any.

78. State whether it happens after the well has been made and while it is being used that the hole will get filled in with earth.

A. It sometimes gets filled in and sometimes not; I have noticed.

79. State, if you noted, what is the cause of their getting filled in at times.

A. I can't say that I can tell what is the cause; the earth may be softer in some places.

80. Where the well is made in sand and the waste hole is made in the pipe just above the suction barrel or cylender, what would be the tendency toward filling the hole around the pipe?

A. The water from that hole might wash the loose dirt down.

81. Would it be more apt to wash the dirt down where it was sandy than where it was stiff clay?

4445 A. I think it would.

82. In what kind of soil have you most frequently found that the hole round the pipe would be filled with earth?

A. It was where it was fine and bored out easy—light sand.

83. Had you at any time prior to 1865 seen what was called a "driven well?"

A. I have.

84. State when it was that you saw such a well.

A. I can't tell the year; it was when one of the first companies was raised here for the war. I think it was in 1861.

85. What was it that you saw? Describe it fully.

A. I saw a pitcher-pump screwed onto an 1¼-inch gas pipe near the corner of Mr. Stout's lot, near Main street. I don't know but it was on the street that goes south from Mr. Stout's. The pipe appeared to be in the ground and stood up a foot and a half above ground. I saw men pumping water there; they said that
4446 was a drive well—driven into the ground. It was a good, permanent well.

86. State whether there was any curbing round this well to hold it in position.

A. There was none.

87. State how it was in regard to earth being close around the outside of the pipe.

A. It was right up snug to the pipe.

88. State what the appearance was as to the pipe having been driven into the ground.

A. There was no earth removed; the grass grew right up to it; it looked as though it had been driven in.

89. How was it as to the yield of water it furnished?

A. There was a good flow of water.

90. How was it as to the clearness of the water?

A. The water was clear and nice to drink.

91. How many persons were around there operating and looking at the pump?

A. I should think somewhere from 8 to 10.

92. Give the names of any persons that you know and that you now remember was there and saw it at the time you were there.

A. E. S. Hovy, B. C. Hale, John Ganier, Martin Rush, and Franklin Rush.

93. State, if you know, at the time you saw this well if any company of soldiers was being raised to go into the war of the rebellion, 1861–1865.

4447 A. That — what I think it was; a company was being raised here about that time; that is the reason I was here.

94. Do you now know who was the man who was raising that company?

A. I do not.

95. State how many times you saw that well at that place.

A. I saw it a number of times after that. I could not state the number; probably two or three times.

96. Did you at any time pump water from it?

A. I think not.

97. How far apart was the time when you first saw it until the time you now remember of last seeing it?

A. I should think about a month.

98. Where were you living at this time?

A. On my farm in Perry —, Buchanan Co., State of Iowa.

99. How far is that farm from Independence?

A. About 9 miles.

100. What season of the year was it that you first saw this well there?

A. I think it was in the summer, but I can't tell the month.

101. Could you tell whether it was before or after harvest?

A. I could not.

102. How far is the place where you saw this well from the place where you put down the wells to make these experiments in the spring or summer of 1879?

4448 A. I should judge about two or three rods west.

103. How was the place that you call "Stout's lot" then occupied?

A. It was a common; it was not fenced.

104. Was there any buildings on that lot at that time?

A. No.

105. How was the place occupied that you spoke of as Goodwin's place?

A. I think that was not occupied.

106. Were there any buildings on that block at that time?

A. I think there was not.

107. State whether or not the street running south where you say this well was had been marked so that you could tell where the street was.

A. No; it was not.

108. At the time you made the experiments about which you have testified you made in the spring or summer of 1879 who was present and assisting you in these experiments?

A. Dr. George Warne, Henry S. Cole, D. W. Hovy, James Brace, S. W. Hovy, and Elias S. Hovy.

109. How much time did you devote to making these experiments?

A. Two days.

110. Were these persons you have mentioned there assisting you both days?

A. They were.

4449 Adjourned until Tuesday, Feb'y 24, at 8 o'clock a. m.

111. In regard to the well you say you saw in Independence about 1861 state whether there was any change in the appearance of how the well was made between the first time you saw it.

A. There was not any change that I saw.

112. Were there other persons there looking at this well at each time that you saw it?

A. Only the first time that I spoke of.

113. At the first time you saw it was there anything said as to how the well was made? If so, state what was said at that time?

A. There was; they said that that pipe I saw was driven down into the ground, the lower end into the water.

114. Do you know who it was that made this statement?

Ans. I do. Byron C. Hale.

Defendant rests on this witness.

4450 X:

Int. 1. What building was the nearest to the well you say you saw at that time?

A. A blacksmith shop, I think, was the nearest.

2. In which direction was the blacksmith shop from there?

A. It was across Main street, to the north and a little east, I think.

3. Look at this plate and state whether this is a correct representation of the situation of the buildings and streets in the vicinity of where that well was located at that time.

Plate marked Exhibit "A."

A. I think it is a correct plate as it is now.

4. Take a pen and mark a small circle on the plate where you think the well was located at that time.

Witness makes a small circle on said exhibit, indicated by an index finger, on the words "the well" written on the same.

5. Now, mark where the blacksmith shop was located when you first saw this well.

Witness marks on the plate blacksmith shop by index finger, and the words "the blacksmith shop" written.

6. Now, mark on the plate any other buildings that was there at the time you first saw that well.

4451 A. There was one dwelling east of the blacksmith shop on the same street at the time I first saw the well.

7. Was any of the buildings indicated on the plate there when you first saw the well?

A. One.

8. Which one?

A. The dwelling on the north side of the street, northwest from the Presbyterian church. It is the second one from the corner, but I think the building ought to be a little further west than the plate locates it.

9. From which corner do you mean?

A. The southeast corner, nearest the Presbyterian church.

10. Was the railroad completed to Independence and the cars running to Independence at the time you first saw this well?

A. I do not know certain.

11. Had the battle of Bull Run been fought at the time you first saw this well?

A. I do not know.

12. Had you heard of the battle of Bull Run at that time?

A. Don't remember.

13. How long had you resided in Buchanan Co. at the first time you saw the well?

A. I should think between 5 and 6 years; can't tell.

14. Was you, at the time you first saw this well, personally acquainted with all the men whose names you have given as being there at that time?

4452 A. I was.

15. How long before that had you been acquainted with Mr. Hall?

A. Five years or more.

16. With Martin Rush and Franklin Rush?

A. Five years.

17. With John Ganier?

A. About four years.

18. What year did you come to Buchanan Co.?

A. In 1855.

19. Was there a telegraph in Independence at the time you saw this well?

A. Don't remember.

20. What business houses were *were* built and occupied on the west side of the river — Independence at that time?

A. The building that Mr. Bisbe lives in was occupied most of the time as a dry goods and grocery store.

21. Who kept this store at that time?

A. Don't remember who kept it then, certain.

22. What other business house was on the west side at that time?

A. Fonda had a store near where his stores are now.

23. What kind of a store?

A. Dry goods and grocery.

24. Who else had business houses on the west side?

A. Couldn't say certain.

25. Did Levi Strohl have a store on the west side at that time?

A. He did near that time; I could not say whether he did that year or not.

4453 26. How long was this after the war commenced when you first saw this well?

A. I think the same year.

27. How many months after it commenced?

A. I do not know.

28. What makes you think it was the same year the war commenced?

A. It was the time a company was being formed here at Independence to go to the war, and I came down to see them.

29. How many companies were formed at Independence to go to the war during the years from '61 to '65?

A. There were two the first year, I believe; I think there was another company afterwards.

30. Was there not as many as six or eight companies formed at Independence during the war of the rebellion?

A. There was not.

31. Was there not as many as four or five?

A. I don't remember but three.

32. When do you remember you saw the first pitcher pump?

A. This I saw here was the first I remember of.

33. Are you positive the pump you saw here was a pitcher pump?

A. I am.

34. Do you remember of seeing any name blown on it or where it was manufactured?

A. Do not.

35. What was the size of the pipe you saw, and what kind of material was it?

4454 A. It was what they called common iron; think it was one and a quarter inch.

36. How far did it stand up from the ground?

A. About two and one-half feet; to the top of the pump.

37. What day of the week was it you first saw it?

A. Don't know; know it was not Sunday.

38. What part of the day was it?

A. Should think it was about 9 or 10 o'clock in the forenoon.

39. Was it a cloudy or a clear day?

A. It did not rain; may have been cloudy; could not say.

40. How long before you saw the well the first time had there been rain?

A. Don't know.

41. How long after was there a rain?

A. Don't know.

42. Had you got through cultivating your corn at that time?

A. Don't remember.

43. How long before that time had you been to Independence?

A. Don't remember.

44. Where did Mr. Hall live at that time?

A. Littleton, Buchanan Co., Iowa.

45. How far from where you resided?

A. About a mile and a half.

46. Did you and he come to town that day together?

A. I think we did.

47. Where did those other men live that were there that day; how far from you?

4455 A. Mr. Ganier lived about a mile and the rest lived about a mile and a half.

48. What were they doing in town that day?

A. It was a great day. I suppose they came in the same as I did. I don't know what they did after they got here.

49. Why was it a great day and what happened to make it a great day?

A. Soldiers getting ready to go to the war was, I think, what caused it to be a great day.

50. Had Lincoln issued his emancipation proclamation at that time?

A. No.

51. How long was it after that before he did?

A. It was some time, but I could not state how long.

52. How many soldiers were there here at Independence at that time?

A. There was one company being formed at that time.

53. Did they have their uniforms at that time?

A. No.

54. Go on and state fully the nature of the exercises on that day and who spoke, if any one.

A. I don't remember of any one speaking; there might, but I don't remember. I saw the company together. It was to visit these fellows that were going away that I came for.

55. State what they done fully.

A. Well, they all appeared to be enjoying themselves pretty well. I think they were getting ready to go to the war.

56. Did you see any drilling or maneuvering that day?

4456 A. I saw drilling twice; don't know whether it was that day or some other time.

57. Was there a flag presentation that day?

A. I did not see any presented.

58. Did these soldiers have a flag that day?

A. Don't remember of seeing a flag that day.

59. Did they have martial music that day?

A. I can't state; I think they did, but I can't state certain.

60. Did they leave Independence that day?

A. Did not while I was here; don't remember; did not see them leave.

61. Did they go off in cars or did they go in teams?

A. I did not see them when they went, either company.

62. Give the names of the soldiers that you can swear were in that company that day.

A. I can't say which company they were in.

63. Can you give the name of a single person that was in that company you saw the day that you saw the well?

A. I cannot, because I can't tell what company.

64. How long a time was it between the time you saw the first company and the second?

A. I should think some three months; I could not be positive.

65. Give the names of the soldiers you saw, as near as you can, in either of those companies.

A. Gardner Thayer, Did. Thayer, Capt. Little, Alpheus Loese, Capt. Lee, Wm. Scott, Nelson Hovy. There were a good
4457 many more that I knew, but I don't remember their names.

66. Did you come in the day you say you saw this well to see your son go off?

A. I never came in to see any of the soldiers go off.

67. Was your son Nelson with you the day you were in and saw the well, or did you see him that day?

A. Don't remember whether he came in with me or not.

68. If he was not here where was he; do you know?

A. Don't remember whether he was here or not; don't know where he was; probably at home, if he was not here.

69. Did he go with the company you saw here that day?

A. Don't know; don't remember.

70. What regiment did he go in?

A. Ninth Iowa.

71. What was the date of his enlistment?

A. I could not state the day; the latter part of August or 1st of September, I think.

72. How long did he remain here after he enlisted?

A. I think one or two weeks.

73. To what point did this company go to that you saw here the time of the "great day?"

A. If it was the 9th they went to Dubuque; if it is the 1st company I can't tell what town they did go to to drill.

74. If you cannot remember whether the soldiers left that day or whether there was any drilling or maneuvering or speech
4458 making or flag presentation or martial music, what makes you think it was a great day; was it because you saw this well?

A. No; it was not because I saw this well; it was because there was a great many came into town that day.

75. Did the seeing of that well make the deepest impression on your mind of anything that occurred on that day?

A. It made a deep impression; I thought it strange to see water drawn right up out of a tube without any well.

76. It made a deeper impression, then, than the enlistment of your son in the army and his going away from home?

A. No.

77. Then why are you not able to state whether he was in the company that you saw that day, or whether he had gone or went afterwards, or whether he was with you that day?

A. My impression is that it was when the first company was formed here. I think it was before my son enlisted.

78. Then the enlistment and going away of your son did not produce such a profound impression on you as did the well?

Ans. I think it did; I can't remember the date of the enlistment or date of seeing the well.

79. Who was running the blacksmith shop at the time you saw the well?

A. I was not acquainted with him.

4459 80. Was it occupied at that time?

A. Yes.

81. Are you sure that there was a blacksmith shop there at that time? If so, describe the building.

A. I am sure; it was not a large shop; the roof was covered with boards; I can't tell the exact size; I never measured it; about 12 x 16, I should judge.

82. What was stated as the object of putting down that well at this place? Was it an experiment?

A. They said it was to show that we could drive down a rod and put a pump on it and get water.

83. What was said—was it put there as a permanent well or as an experiment?

A. Don't know that there was anything said about that either way.

84. Was there anything said about who put it there?

A. No.

85. Did any one there profess to have seen it made?

A. No.

86. Who told you about the well and how it was built?

A. B. C. Hale.

87. From whom did he claim to have gotten his information?

A. I do not remember; don't know as he said.

88. Had there been much tramping around this well?

A. I could not tell; there were no marks of a great deal of tramping; the grass was not dug up.

89. The grass was not tramped much, then?

A. Not so as to be tramped up by the roots.

Adjourned until 2 o'clock p. m.

4460 2 O'CLOCK P. M.

Met pursuant to adjournment.

All present.

90. How many times do you say you saw the well?

A. I saw it once afterwards.

91. Did you not state in your direct examination that you saw it a number of times?

A. I did see it a number of times.

92. How do you reconcile the statement you have already made that you saw it once after you saw it the first time?

A. I saw it once after the first time would make twice, would it not?

93. Do you think that would authorize you to say, as you have already said in your direct examination, that you saw it a number of times after you saw it the first time?

A. I don't remember what I said in my direct examination, but I did see it once after the first time.

94. What was you doing in town and what was going on at the time you saw it the second time?

A. I don't know as anything special was going on the second time I was down; I remember of coming down and seeing the well there; there was no one with me.

95. Did you come in on the road pass the well?

A. I did.

96. Which way did you live from Independence at that time?

A. I think about three and a half miles north of west; about 9 miles from town.

4461 97. How long was this after you saw it the first time?

A. I don't remember.

98. Has there been a great deal of conversation in Independence about this well since this suit was commenced?

A. There has been some; I don't know how much.

99. Is not a great deal of this you state brought to mind and recollection by statements that others have made to you and in your presence?

A. No, sir.

100. Do you swear that you remember all that you have stated without a reminder or suggestion from any one?

A. Oh, I might have heard some one speak about the well, but this is my recollection what I have stated.

101. You now swear, do you, that without a reminder or suggestion from any one that you are now able to remember at this time that you saw this well at the time you have named, after the lapse of nearly nineteen years, and that it had a pitcher pump on an 1¼ inch pipe, and stood about 2½ feet from the ground, and that the grass came up around it and was not trampled much, and that it was located at the spot you named, and that the men were present that you had named, and that the conversation was had as you have stated, and that there was no road made or worked or travelled along the street where this well was located, and that it was 5 or 6 years after you came to Iowa?

4462 A. Some of these points I have heard talked over; some I never had until I remembered them myself. If you would put each point by itself I could answer it much better.

102. Was you able to recall each one of them without any suggestion or reminder?

A. I had heard some suggestions before I remembered all.

103. State that part that you was able to remember without suggestions, and then state that part that you was unable to remember untile suggestions were made.

A. The description of the pump, how it stood, and the hight I remember distinctly. I think that some one asked me who was at the well with me. I at first could not tell; when I came to think it over I remembered the names without hearing the names mentioned by any one that was present when I was at the well the first time.

104. Did you hear anything about this being a patented process at the time or before it was taken away?.

A. I did not.

105. Did it strike you as being a very great novelty?

A. It did.

106. When was the next time you saw such a well and where?

A. I don't remember when or where.

107. About how long after this was it that you saw one or heard of one?

A. I think a number of years; don't remember.

4463 108. The next one you see did not produce as much impression on your mind, did it?

A. It did not.

109. State when and where and how the next well you see was constructed.

A. The one I remember now next was made for Cutshall; it was in the fall of 1867; I was not present when it was made; I saw it after it was made; it had what is called an anti-freezing pump on it.

110. How long was it after you saw that first well *was it* that these kind of wells began to come in use in this county?

A. This Cutshall well was the first one I saw.

111. Did you ever see any other drive well standing near this first drive well that you have pointed out on plate marked Exhibit "A" and shown you?

A. I saw one near the Presbyterian church; it may be 4 or 5 or 6 rods west of the church.

112. When was that?

A. It was when they were building the church; I could not state the year; think it was after '67.

113. Did you always come into Independence on the same road and pass where the well was?

A. No, sir.

114. Did you generally, during the years '62 & '63, come that way?

A. If I had no business at the miller's, in Littleton, I generally came that way.

115. During the years '62 & '3 how often would you come past this point to Independence?

4464 A. Oh, I generally came that way about half the time; sometimes I would come once a week; sometimes once a month, and sometimes not in two months.

116. Was not there a drive well standing at or near the northwest corner of the block on which the Presbyterian church now stands in 1862 or '3, and did it not remain there for the greater part of one summer?

A. I don't think there was; don't remember of any.

117. If there had been one there during one of those two years would you have seen it?

A. I think I should.

118. You are just as positive that there was not one there for any considerable time during one of those two years as you are that you saw this first well you first described, are you not?

A. The first well I had described I was not positive as to the year, whether it was in '61 or '62; that did not stand on the corner of the block you speak of, I think, and I don't remember of seeing one on that corner in 1863; don't think there was one.

119. If there had been one of these wells on that corner for a considerable time during the spring or summer of '62 or '3 would you have been likely to have seen it?

A. I should.

120. Then you are not sure that it was in '62 or '61 that you saw this well the first time?

A. I am not certain, but think it was in 1861.

121. Was your son in the army at the time you saw it or not?

4465 A. I do not know.

122. State how you know it was not when the third company left that you was there and saw this well.

A. I don't think I was in town when the 3d company was getting ready to go. I have no remembrance of it.

123. Will you swear positively that it was not when the 3d company was leaving that you were in town and saw this well?

A. I won't swear positively.

124. You said in your direct examination, did you not, that a well could not be constructed so as to furnish a supply of water in the vicinity of where you saw this first well according to the reissue patent of Nelson W. Green, No. 4372, and obtain a supply of water?

A. I think I said something like that.

125. Is that true?

A. I think it is.

126. Then this well you first saw there, as it gave a good supply of good water, could not have been constructed after the manner described in Green's patent, could it?

A. I don't know how it was constructed; don't think it was after his patent.

127. You think, then, that a screen must have been round the point and the well pit cleaned out before putting it down, do you?

A. Have no knowledge how it was put down, only they said they drove it down. I have no knowledge of the screen or point.

4466 128. From your experience in making wells in Iowa soil do you not think that a wire screen must have been used and the well pit cleaned out before inserting it to enable it to work so well?

A. I think there must have been a wire screen or perforated tin for a screen or what we call a flat point to keep back the fine sand, but do not know that either were used. I don't know how it was constructed. The well pit might not have been cleaned out.

129. Do they work so well without being cleaned out as that one did?

A. Not often; once and awhile they will.

130. Will they in that kind of a formation?

A. Once and awhile they will. It is a little coarser there than most places in town where I have put in wells; the same at the bottom.

131. When you made those experiments at the time you say, after driving down your drive point attached to the pipe to the depth you went, did you attach a pump and try to pump water?

A. Not till I pulled it out and inserted a tube.

132. Then you made no experiments by driving down a hollow tube shod with an iron point with perforations some distance above the point and attaching a pump to the pipe thus driven and trying to pump water through the same?

A. No; not without boring down to the water first.

4467 133. Did you make any experiment by driving down to the water and inserting in the hole thus bored a hollow pipe shod with an iron point with perforations for some distance above the same and force or drive the same into the water-bearing stratum from three to five feet, and attach a pump to such pipe and pump water therefrom?

A. We did not until we had bored down into the water-bearing stratum from 3 to 5 feet; then we inserted the point with perforations in it; that should be screwed onto the gas pipe sufficient length; then we insert it into the hole and put it down and pumped water.

134. Was not the water-bearing stratum when you made these experiments coarse sand and gravel—somewhat coarse?

A. There was coarse sand and fine sand and gravel.

135. Will you swear that you was able to bore from 3 to 5 feet in that water-bearing stratum and withdraw the auger and thus leave a hole to that depth?

A. No; we loosened up the sand to that depth with the auger.

136. Then you had to thrust the drive point through the sand and gravel after you got through boring?

A. Yes.

137. And, of course, the sand and gravel after the pipe was thrust through it immediately settled round the pipe and in close proximity to it?

A. Yes; in the water.

4468 138. How far into the sand and gravel was this pipe enclosed and inserted above the perforations with sand and gravel?

A. About to the level of the water.

139. Then the drive point would be from 4 to 5 feet from the surface of the earth in the bottom of the bored hole?

A. It would be 5 feet below the water.

140. I understood you to state, did I not, that the sand and gravel would be in close proximity to the pipe to the surface of the water in the bored hole?

A. It would be before it is pumped out, the dirt and fine sand.

141. Was you ever down in one of those wells to see how much it lowered the sand and gravel in close proximity to the pipe by pumping out the fine particles in close proximity to the drive point?

A. Never was.

142. Does it pump out any particles of sand or dirt from any distance above the perforations, do you know?

A. It does sometimes; it will pump out the fine stuff so much that it will cave in close to the pipe. By the appearance by taking out the pipe there would be nothing against it or nearest the lower end, and other places it would not pump out as much and it would be nearest up three or four feet and be loose.

143. How near the lower end?

A. Sometimes not over 2 feet.

4469 144. Is it not true, Mr. Hovy, that this caving in you speak about after pumping out the fine particles generally extends to nearly the surface of the water?

A. Yes; it generally settles down; it is stirred by the pipe going down; as we pump out the fine stuff below it settles down.

145. It settles right down the pipe; it don't cave in *to* towards the pipe, as I understand it?

A. As we pump it out it will come towards the pipe; when we pump out the fine stuff the coarse will settle toward the bottom.

146. It won't settle toward the pipe?

A. It may settle towards the pipe; it settles down.

147. Then I understand you, if a pipe be driven into the earth from 5 to 8 feet with perforations extending from the point 18 inches, and a sand pump is attached and the fine particles pumped out from the vicinity of the perforations, that such is the sens*a*tiveness of sand and gravel in a water-bearing stratum to disturbance that the whole mass above to the surface of the water will give way and settle down?

A. I never said no such thing. In the first place, our point that has perforations in it is about three feet long; I have never tried one 18 inches long, a drive point; if I did I would have to raise it or lower it to clear it out when I pumped to make a good water bed.

148. Is it not true that sand and gravel in a water-bearing stratum is very sens*a*tive of disturbance and responds very quickly to any moving of the same?

4470 A. It does if it is very fine.

149. Is not that equally true if it is coarse?

A. Not in such a measure as in fine.

150. I believe I understood you to say that it is generally fine in Iowa soil?

A. I did.

151. You have stated heretofore, have you not, that in constructing your wells in Iowa generally you forced or drove the drive point from 3 to 8 feet in the water-bearing stratum, and after pumping out the fine particles with a sand pump you would withdraw the

same and insert in lieu thereof a sand point so that the upper perforations in the same should be from 2 to 3 feet below the surface of the water in the bottom of the bored hole?

A. Yes.

152. I believe I understood you to say that after boring into the water-bearing stratum and loosening up the sand and gravel and withdrawing the auger that the sand or sand and gravel would generally fill into the hole to about the surface of the water in the bored hole.

A. Yes, sir.

153. Then I understand you can't make a hole in water-bearing stratum of sand or sand and gravel that will remain a hole; that your only object in boring is to loosen it up so that you can force or drive the pipe more easily?

A. That is the object, is to get our pipe down easier.

154. Do you not take with you, and use in making your wells, mauls or sledges?

4471 A. I always take a sledge with me, but don't always use it, but do sometimes.

155. Do you not use it in a majority of cases, more or less?

A. I think I do.

156. Is it not the case frequently that the water-bearing strata is so loose that there is no need of boring into it; that you can take the drive pipe, and by chucking it up and down and applying your weight to it force it down to a considerable distance?

A. Yes.

157. Have you not made wells that way in Johnson Co., in this State, since May, 1871?

A. I have; after I had bored down into the water I have chugged the pipe down without touching the sledge to it.

158. How far?

A. Till I got in about five feet into the water with the bottom of the drive point.

159. From your experience and observation in constructing wells, is there any difference in the application of atmospheric pressure to obtain a supply of water from the earth in a well constructed by driving down into the earth from the surface of the ground to and into the water-bearing stratum of sand and gravel from three to five feet, shod with a point and with perforations extending for some distance above the same, with a pump attached with an
4472 air-tight connection, and a well made by boring a hole with a 3-inch auger down to and into the water-bearing stratum of sand and gravel, and withdrawing the auger and inserting in lieu thereof a pipe shod with a point and in all particulars made like the one first described, and this all forced or driven into the bottom of said bored hole the same depth as the first one described, and with a pump attached by an air-tight connection?

A. I think the atmospheric pressure in both cases would be the same.

160. As far as the application of natural and artificial forces are concerned to obtain a supply of water is it the same in one case as in the other?

A. I think it would be.

161. Suppose that this second well that I have just described was made by boring down to the water-bearing stratum with a 10-inch auger and the same pipe was driven into the bottom of it to the same depth, would there be any difference between it and the one first described, as far as the application of atmospheric pressure is concerned or the application of natural and artificial forces is concerned?

A. I think they would be the same.

162. Is not the ground rather solid where you made these experiments on the surface, and was there holes not made in the sod?

A. It was not very solid. Right at the top it was a little harder than it was down. There was sod over it all.

4473 163. Did you ever make more than one experiment in Iowa of driving an open-ended tube into the ground?

A. This was the only one that I drove with open-ended tube.

164. Do you not know that Mr. Green does not recommend in his patent to first drive a hollow tube shod with a point, with perforations above the same, into the earth and into the water-bearing stratum and the withdrawing the same and insert in lieu thereof an open-ended tube with perforations above the same, but, on the other hand, does he not recommend to use this tube, with the drive point, after having driven the well with it, as the tube from which to obtain the water?

A. Green's drive point has no perforations in it, according to his patent. He says in his reissue to drive down the drive point with a rod attached until it reaches into the water-bearing strata, then withdraw the same. Then he puts down a hollow tube slightly smaller at the lower end, with perforations in the pipe for a foot and a half or a short distance from the bottom; drive- in the same hole that he had made with the drive point until he gets into the water-bearing strata.

165. He don't say in his patent, then, that in some soils the rod is unnecessary, and that the tube itself through which the water is to be drawn may be the instrument to be used in the first instance in making the well?

4474 A. Yes; he says in some soils the pipe itself may be driven right down with the perforations right into the water-bearing stratum. There is no plug bottom of the pipe.

166. Would it ever occur to you, as a mechanic or well maker, if you should see that cut attached to Mr. Green's patent, and in connection with it see this statement, "In certain soils the use of a rod, preparatory to the insertion of the tube, is unnecessary, as the tube itself through which the water is to be drawn may be the instrument which produces the well by the act of driving it into the ground the requisite depth," and knowing the great amount of friction of driving a rod without any swell above the point, would it not readily occur to you that it would be necessary, in order to drive a pipe readily into the earth, that it would be necessary to have the point designated in figure one of said reissue of letters

patent or a wooden plug be placed in the same and project a trifle beyond the diameter of the end of the tube?

A. It would look to me as though it would go down easier with a plug of wood on the point designated as "A & B" in number one.

167. Would it not readily occur to you that such would be the fact after seeing the cuts and reading the extracts from the patent?

A. No; not if I was following his patent.

168. But, without reading any further from the patent, would it not occur to you that that would be the case?

4475 A. No.

169. Why did you answer, in reply to interrogatory 166, that it would look to you, after reading the extract and looking at figure (1), that the pipe would go down easier with a plug of wood on the point designated as "A & B" in figure No. 1 if you now say that reading it, and reading nothing further, would lead you to a different conclusion?

A. I said it would go down easier, but if I read the patent I would have to follow it.

Adjourned until Wednesday, February 25th, 1880, at 9 o'clock a. m.

Met pursuant to adjournment.

All the parties present.

170. Then I understand you to say, do I, that seeing the cuts attached to the patent, and reading extract referred to, you would conclude that it would be better and easier to put a point on the end of the tube as is referred to in figure one, or a wooden plug sharpened to a point with a small projection a little beyond the diameter of the tube; but that looking at the whole patent you would conclude otherwise?

A. I think it would be easier to put it down in that way, with a point or wooden plug.

171. Would you readily come to that conclusion?

A. Yes.

172. Where did you next hear of drive wells, after you saw the first one?

A. Can't say; do not remember.

4476 173. Did you hear of one before the one you say you saw in 1867?

A. I think I did.

174. When and where and of whom?

A. I do not know of whom I heard it. I heard of one being put down at Waterloo, in the fall of 1867, before this one, at Mr. Cutshall's.

175. Was you quite extensively acquainted in Buchanan Co. & Independence from '61 to '67?

A. I was acquainted with some; not extensively.

176. Was you not well acquainted in Independence during the period from '61 to '67?

A. I was acquainted with most of the business men and some others.

177. Then I understand you to say that the first you heard about there being drive wells was after you heard of one being at Waterloo?

A. I did not say that; I said I remember of hearing of one put down at Waterloo that fall.

178. Do you now remember of any other one you heard of?

A. I remember hearing of another, but can't say whether it was before or after the one I heard of at Waterloo.

179. When and where and of whom did you hear of the other one?

A. Don't know of whom I heard it, but I heard that Elias Parker had put one down; don't remember the year or time of year, but it was before the Cutshall well?

180. Was it before or after the one you heard of in Waterloo, in '67?

4477 A. Can't say, certain.

181. Was this all you remember hearing of drive wells up to that time?

A. Can't say; don't remember.

Cross-examination rests.

Redirect:

Int. 1. Take the plate marked Exhibit "A," and state how many and which of the buildings shown on that plate you remember of being there at the time you first saw that well.

Ans. The second building from the east side of the block on the north side of Main street; the first building on the west end of the block (the same block); don't know of any others as is shown on this plate, except those two.

2. Which one of those buildings was it that you say was used as a blacksmith shop?

Ans. The west building.

3. Was you in that building on the day that you first saw this well that you describe?

Ans. No; I was not.

4. Did you see any men at work in that building that day?

Ans. No; I did not.

5. Had you been in that building previous to that time?

Ans. I had not.

6. Was you in it after that time within a month or so?

4478 Ans. No.

7. Then why did you say you was sure it was used as a blacksmith shop at that time?

Ans. Because some time after I was there—within a year or two—and got a little work done, and I supposed it had been a shop all the while.

8. At the time you saw this well first was the grass growing close up to the pipe onto which the pump was fastened?

Ans. I noticed the grass growing up under the pump; don't know that it was snug to the pipe.

9. State whether there was any place that looked as though the pump had been used. If so, describe how it looked.

Ans. I could not say.

10. At either of the other times that you saw it was there any indications that the pump had been used? If so, state.

Ans. The indications I saw was a cup there; I remember of seeing a tin setting in the pump; I drank out of it.

11. State whether the grass was tramped down round it where the people had stood there and pumped.

4479 Ans. It looked as though they had stood there and pumped.

12. In your cross-examination your answer to interrogatory 20 is, "In the store where Bisbce now lives." Now state whether that is correct, and, if not correct, state how it should be.

Ans. It is not; it should be where Bisbe is keeping grocery store now.

13. What kind of a store was in there at that time?

Ans. I think there was a grocery store kept there for years.

14. Do you now remember who kept it at that time?

Ans. I do not.

15. You was asked on the cross-examination about Levi Stohl keeping a store on the west side of the river in Independence. Do you know when Levi Stohl first came to Independence?

Ans. I did not.

16. In speaking about the companies that were raised for the war you stated that there was considerable excitement at the time. Was there not much more excitement about these companies in 1861 than there was after that?

4480 Ans. There was more excitement when the two first companies were formed here than afterwards.

17. State whether it was during the excitement about these companies that you came to town and saw that well.

Ans. Yes, sir.

18. Into which regiment did the company go that your son enlisted in?

Ans. In the 9th regiment.

19. Into what regiment did the company go that was raised here before your son enlisted?

Ans. I do not know.

20. Who went out as captain of the first company?

Ans. Captain Lee.

21. Who went out as captain of the company your son went in?

Ans. I do not remember who was the captain.

22. You say you saw the pump about 10 o'clock in the forenoon. State how you remember the time.

Ans. I remember we came down in the morning, the fore part of the day. Well, I think it would be somewhere about 9 or 10 o'clock we would be there.

23. You were asked where B. C. Hale lived at that time,
4481 and stated he lived at Littleton. Now state whether B. C. Hale was not at that time sheriff of Buchanan Co.

Ans. I think he was.

24. If he was sheriff, state where he resided.

Ans. At Independence.

25. How came you to state that he lived at Littleton?

Ans. He lived at Littleton when I came into the county and lived there until he was sheriff of this county, and when I made the statement I did not think of his being sheriff at the time.

26. After he was out of the office of sheriff where did he live?

Ans. His family lived here, and then he went to the war.

27. Do you know what regiment he went in when he went to the war?

4482 Ans. I do not.

28. Did he go to the war the same season that you saw this well that you testified about?

Ans. I do not know.

29. You was asked in your cross-examination whether this well was a novelty when you first saw it; now state whether that was the case and whether it made a strong impression on your mind.

Ans. It was a novelty; it made a strong impression on my mind.

30. Were the buildings that were on the block north of where you saw this well a novelty at that time?

Ans. I think not.

31. State whether there was anything in the character and use of the buildings on that day that did make an impression on your mind.

Ans. There was nothing particular.

32. You was asked whether the railroad was completed and the cars running to Independence at that time; state what road you had reference to.

4483 Ans. What we call the Illinois Central.

33. Do you now remember whether that road was completed and the cars running to Independence in 1861?

Ans. I do not remember what year they came in or whether they were running at that time.

34. Did you have any other market than Independence in 1861 to 1867; if so, where was it?

Ans. Yes; Jesup.

35. How far from your farm to Jesup and how far was it to Independence?

Ans. Somewhere from 3 to 4 miles to Jesup and from 9 to 10 to Independence.

36. Where did you get your milling done from '61 to '67?

Ans. At Littleton.

37. How far was that to your farm?

Ans. About 1½ miles.

4484 38. You was asked in cross-examination whether this well you first saw must not have had a screen point on it in order to work well in that soil. You stated in reply that it must have a screen point or perforated tin, or what is called a slot point. Now, state whether, if the perforations in the pipe were small and a considerable amount of fine sand had been pumped out before you saw the well, it would have worked in that condition as well as with either of the other points you named.

Ans. It might work as well if the holes were very small.

39. You stated in your cross-examination that you remembered of hearing of Cutshall's well next after seeing the well in Independence about 1861. Now, state whether between 1861 and the time that you heard that Cutshall had a well of that kind you had heard anything about there being such a thing as driven wells.

Ans. I presume I had heard of driven wells, but had not seen any that I know of.

40. You was asked in cross-examination if you had ever been down into one of these wells to see how much the earth caved in round the pipe after the fine particles had been pumped out. Now,
state whether you had ever been down in one to see how much
4485 the hole- have filled with sand after boring down into the
water-bearing strata and withdrawn your auger.

Ans. I never have.

41. In making your wells as you have made them since 1871 did you use a maul or sledge in putting down the drive point or the permanent tube with the screen point on it before the lower end is into the water-bearing stratum?

Ans. No, sir.

42. You was asked in cross-examination in regard to atmospheric pressure. Now, state whether the atmospheric pressure on the water in the earth is any different whether you make a hole to it by driving down a rod and then withdrawing it or the boring down to the water with a 3-inch auger, or by boring down to the water with a 10-inch auger, or by digging a hole down to the water with a spade or shovel. And, if so, what would the difference be?

Ans. I think they would be alike.

43. As far as natural and artificial forces are concerned to raise water out of the earth, will it make any difference whether the water is reached by boring or driving a pipe down or by digging a hole to it?

Ans. No.

44. You was asked in cross-examination in regard to whether
it would occur to you, on reading that part of the patent where
4486 it speaks about "in some soils" you may drive the tube down
without first using the drive rod, that a well point should be
put into the lower end of the tube with a swell point to take off the friction occasioned by driving a straight rod. Now, state whether there is anything in the patent said *upon* about using a point in the lower end of the tube or about using a swell point for the purpose of taking off the friction and driving the rod. And, if so, what does the patent say on that subject?

Ans. There is nothing in the patent about using a pointed rod or a wooden plug in the lower end of the pipe in putting it down; it would take the friction off, but there's nothing in the patent about using the point shod with steel or wooden plug in this hollow tube.

45. State whether or not there is anything in the patent in suit about using a swell point on the rod you drive first for the pur-

pose of taking off the friction in driving the rod? If so, state what is said on that subject in the patent.

Ans. There is not; it is to make a hole slightly larger; there is nothing said about friction.

46. If you had no knowledge about making wells, except 4487 what you derived from examining the patent in suit, state whether it would occur to you to put any kind of plug or point in the end of the open-ended tube, as shown in the patent, in case you found soil where you thought it would do to drive the open-ended tube, as shown in the patent, without first making a hole by using the drive rod, as shown in the patent.

Ans. It would not.

47. Does the making of wells by the process described in the patent require any special training or skill?

Ans. No.

Recross:

1. Then, I understand you to say, if you should pick up this patent and did not know anything but what you see in it, it would never occur to you that an open-ended tube would drive better if there was a point on it with a slight swell to it or a wooden plug sharpened to a point with a slight swell to that?

4488 Ans. If I took up the patent and read it and was going to make a well from it, if I thought it needed the drive point to go down first I should put it down according to the directions in the patent, then withdraw it and put down the open-ended tube according to directions. If I did not do it in that way it would not be under the process that he claims in his invention.

By direction of complainants' counsel interrogatory one (1) is reread to witness, and he is asked to answer directly.

Ans. I don't know whether it would or not.

2. If the patent did not saything about when this tube was used instead of the rod, whether a point should be put on it or not, would it not at once occur to you with the knowledge you possess as a well maker or as a mechanic that a point would be necessary?

Ans. Yes; it would.

3. Will you point out in this patent the particular language that is used, that says you must not use a drive point on the end 4489 of this tube when you dispense with the rod and use it as the instrument for driving the well?

Ans. There is nothing in the patent that says you must not.

4. Then you were mistaken when you said in your examination heretofore in saying that good wells could not be made in Iowa soil unless some screen or protection was used over the perforated holes in the pipe, as you now say that perforated holes, if small, will answer and produce a good well?

Ans. I was not mistaken before, as the holes described in the patent says to be half-inch.

5. Don't you know, sir, that the patent does not limit the size of the perforated holes, but leaves it to be governed entirely by circumstances and the character of the soil?

4490 Ans. It says nothing about the character of the soil or circumstances. It says the perforations may be about one-half inch in diameter, less or more.

Adjourned until 2 o'clock p. m.

Met pursuant to adjournment.

All the parties present.

6. Do you understand that these holes should be raised in size in different soils or formations?

Ans. I think not by the patent.

7. Will you please answer that last question?

Ans. I do not.

8. Then a large hole is just as good in a stratum of fine sand as it would be in one composed of gravel?

Ans. I think if it was a large hole or a $\frac{1}{2}$-inch hole in fine sand it would continue to pump sand without a screen over it. If it is in very coarse gravel it might not pump the gravel up.

9. Then large perforations in the pipe do not answer as well in some locations as in others?

4491 Ans. It would not.

10. Then the size of the perforations should be varied according as the material in the water-bearing strata is fine or coarse?

Ans. It would be with me.

11. How small should the perforations in the pipe be to work as well as you say this well that you first saw worked?

Ans. I could not state how small they would have to be—I don't know.

12. According to your experience would it work as well as that well worked if the perforations were an $\frac{1}{8}$th of an inch in diameter?

Ans. I could not state certain whether it would or not.

13. Who suggested to you that B. C. Hall was sheriff at the time you first saw this well?

Ans. Col. Lake, I believe.

14. Who suggested to you that he lived in Independence at that time?

Ans. I knew he lived there as soon as I thought he was sheriff.

15. How are you able to swear that he was sheriff at that time any other way than alluding to Col. Lake's suggestion?

4492 Ans. I knew he was sheriff a year or two before he went to the war.

16. Then do you know when he went to the war?

Ans. I did not see him go to the war, but I suppose he went in 1861; can't state certain.

17. What year was he elected sheriff?

Ans. I can't state what year he was elected sheriff, but he was sheriff a year before he went to the war, I know.

18. If you don't know what year he was elected sheriff and don't know when he went to the war how are you able to swear that he was sheriff and lived in Independence at the time you first saw this well and was there with you?

Ans. I remember of his being elected sheriff, but I could not state what year; I know he acted as such.

19. Will you please answer that last question?

Ans. I have answered it.

20. Is that the only answer you will give?

Ans. I can answer it by going to the records. I can get the exact time when he commenced.

21. Will you give the records as to that question I have just asked you and which you still refuse to answer?

4493 Ans. I can't at present.

22. Where did you first meet these men that were with you at the well the first time you saw it?

Ans. I can't state certain whether I came in town with E. 4494 S. Hovy in the same wagon or not; John Ganier and the two Rusks came whilst we were there, and Mr. Hale was there.

23. How long before this that Mr. Hale had been elected sheriff?

Ans. My impression is that he was elected in the fall of 1860, but could not state certain.

24. How long before that had he moved to Independence?

Ans. I don't remember.

25. As you admit that you were mistaken about Mr. Hale, might you not have been mistaken about the other statements you have given?

Ans. No; I remember distinctly of seeing the well.

26. Then it is not possible that you are mistaken about any of the other statements you have made?

Ans. I think not about the well; and the people that was there I am sure I was correct.

27. How is it about the several dates you have given; would the same apply to those?

Ans. What dates?

28. Does the same answer apply to all the dates you have given in your examination here, and to the different companies that went into the service?

Ans. Yes.

29. Then you are not one of those who are ever mistaken?

Ans. Oh, I am, but I believe them to be true; my statements and dates I mean.

4495 30. Would you have thought to correct your statement in regard to Hale unless your counsel had made the suggestion to you?

Ans. I think I should.

Re-cross rests:
(Signed) GEO. HOVEY.

Subscribed in my presence and sworn to before me this 23d day of Feb., 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public

[Endorsed:] Filed Oct. 20, 1880. E. R. Mason, clerk.

4496 On this 25th day of Feb'u'y, A. D. 1880, Dr. GEORGE WARNE was produced, sworn, and examined as a witness on the part of the defendant, and deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is Geo. Warne; am 59 years old; reside at Independence, Iowa; am a physician.

2. How long have you resided at Independence?

A. 23 years past.

3. Where did you reside before you came to Independence?

A. Plattville, Wisconsin.

4. How long have you been a practicing physician.

A. 34 years in September next.

5. With whom did you read medicine?

A. George W. Richards, of St. Charles, Illinois.

6. Did you take lectures at any medical school? And, if so, state at what school and how long.

4497 A. I took two full courses at the medical school at La Porte, Indiana, and one course in what is now the Keokuk school, of Iowa.

7. Are you a member of any medical association now? And, if so, state what one and how long you have been a member.

A. I am a member of the State medical association at Iowa and have been about 7 years; I am also a member of the Buchanan Co. Medical Society, which has been in existance about 2 y'rs; was formerly a member of the Cedar Valley Medical Society about six years.

8. In preparing yourself for your profession did you study philosophy and chemistry?

A. Chemistry some; it is a branch of the study of medicine; they gave a full course of lectures on chemistry in all the institutions.

9. Since you have been in Independence have you been an observer of phenomina for any institution, and how long?

4498 A. I think I was observer for the Smithsonian Institute for about 7 years and for the War Department about three.

10. Do you know Geo. Hovey; and, if so, how long have you known him?

A. I have known Geo. Hovey, and have known him several years; I can't tell just how long; have no date to go by; something over 10 years.

11. In the spring of 1879 did you assist Geo. Hovey and others in making some experiments in regard to the success in making of what is known as driven wells, and also in making bored wells?

A. April 22nd & 23d, 1879, I did.

12. Whereabout were those experiments made—that is, in what town and place?

A. City of Independence, Buchanan Co., Iowa, on the west side of the river, I think on block (3), lot (4), in Stoughton — McClure's 2d add. to Independence, Iowa.

13. You may now look at this plot shown you and state whether that correctly represents the streets and blocks as laid out and platted

on the west side of the river, Independence, Iowa, in the vicinity and about where these experiments were made.

4499 A. I think it is accurate, except the line on the west side of blocks 23 and 24.

14. You may designate to the commissioner the place on the plot where these experiments were made with ink marks, making a small circle on the plot, and a description in words stating the blocks and part of blocks on which the experiments were made.

A. The experiments were made in the northwest corner of block three (3), and I here mark it with ink on the plot.

15. Did you, at the time, make a memorandum of the persons present and what was done at these experiments?

A. I did.

16. Now state to the commissioner, so that he can write it down, giving the date, names of the parties present, the tools and implements used, and what was done. Make it as full and complete as you can from the memorandum and recollection you have in the matter.

A. The experiment was commenced on the 22d day of April, 1879. Persons present engaged in the experiment were H. S. Cole, Geo. Warne, E. S. Hovey, Geo. Hovey, D. W. Hovey, and Frank 4500 Hovey. There was a man present by the name of Peck, a resident of Cortland, New York. On the first trial a Hovey pipe No. (1) was used; said pipe consists of a hollow tube, with a metal point, and a bulge above the point, and above the bulge or swell, which was slightly larger than the pipe, there were many holes bored ⅛ of an inch in diameter; this pipe was driven into the ground and into the water three or four feet, to have a good supply of water; the depth was measured from the inside of the tube; said tube was removed from the ground and an open tube corresponding with the one in the Green patent. A Mr. Peck was present who resides in New York.

4501 (Witness resumes:) Who said that that was the same kind of a tube that they used in New York. He said they used no plug in the bottom or screen on the pipe. This pipe was driven into the ground to the same depth that the first pipe was driven in. A sand pump was screwed onto the pipe—I think it was what they call a No. 4 friction pump—primed with water, and we all tried to pump water, but could get none. The valve was then removed from the pump and the tube filled with water, and then we pumped again and we could not get back the same water we put 4502 into the tube. After a thorough trial by all parties present, and that kind of a well being pronounced a failure, we drew the tube from the ground and screwed onto the bottom a short piece of pipe with about 24 ½-inch holes bored in the side and put it back in the same hole, drove it down to the same depth as the other pipe, put on the pump, primed it with water, and endeavored to the best of our ability to pump water through it. We could obtain no water, and after a thorough trial we drew this tube from the ground and found in the tube from 5 to 7 feet of sand, as was the same in the tube before. We then put onto this same pipe a common point, plug in

the bottom, drove it down to the same depth, put on pump, primed it, and pumped forthwith sand and water first and afterwards pumped water fit to drink. We drew the pipe from the ground, and 2 feet 7 inches from that hole we bored another hole to water, put on a common screen point, a plug in the bottom, drove it down far
4503 enough in the water to cover the screen, and pumped water freely.

We then drew that tube from the ground, put on the perforated point described above, with a small hole drilled in the pipe about two feet above the upper part of the point, where it joins on the pipe; this was driven into the same hole to the depth that the hole spoken of would (be) a foot above the water; the earth was firmly tamped around the pipe and made as solid as we could drive it with a sledge hammer; the pump was applied and primed, but we could get no water; we could pump air freely, as shown by the bubbles coming through the water in the priming of the pump; the pump was removed from the tube and a short piece of pipe screwed on; these driven into the ground deep enough to cover the drilled hole in the pipe, that was about 2 feet above the point; the pump was again applied, primed, and we pumped water freely.

After satisfying ourselves that the supply was inexhaustable we drew the tube up high enough so that the drilled hole in
4504 question was above the water; the earth was again firmly driven around the pipe and we endeavored to pump water as before, but could not get water—nothing but air. We drew the pipe out of the ground after this experiment, and 32 feet 4 inches south from the last hole mentioned a hole was bored into the ground 8 inches in diameter down to water; Hovey's point No. 1 was screwed onto the point used before, set in the centre of the hole as near as we could get it, driven to cover the point thoroughly, pump applied, primed, and, after pumping about a dozen of pails of mixture of sand and water, the tube was removed from the hole and a common screen point with a plug in the bottom — and put back in the same hole, and inside of 10 minutes had a fine flow of clear water—that is, it was clear enough for any ordinary use. This tube in this 8-inch hole, water was on the outside of pipe and all round it, and we thought we had more water and power, because we had more atmospheric pressure outside the pump tube.

We then bored another hole near this one, within a foot
4505 or two, with a 2½-inch auger, down to water; we removed all the earth from the surface down to the water—same tube as was used before, with a common screw point on it—and three men, by taking hold of the tube and chugging it up and down, easily forced the screen point below the surface of the water; pump applied and pumped freely, showing in this case that a well could be made without a blow being struck to drive it into the ground.

17. During the time you were making these experiments did you have two pumps working at the same time?

A. I think we did, part of the time.

18. State now with what kind of a well each of the pumps was placed, and what was the relative flow of water from each.

A. I did not intend to say that they were there both working at the same time. We had a Mr. Hovey's pump and a Mr. 4506 Cole's pump, and on the open tube pump we placed one alternately.

19. Was there not at one time a pump operated in the well bored with an 8-inch auger and at the same time one in the well where the earth was tamped around the pipe or in the well where the pipe was driven down?

A. Not to my recollection.

20. While you was operating on this pipe that had an air-hole above the screen could you get any water when this air-hole was above the line of the water in the earth?

A. We did not.

21. Did you try an experiment with this hole just below the line of the water in the earth, then pumping it; if so, what was the result?

A. When the drilled hole in the pipe was below the surface of the water we could pump water freely. When the drilled hole in the pipe was above the surface of the water we could get no water; nothing but air.

22. Could you, by operating the pump, produce a vacuum in the earth outside the barrel?

4507 23. Will water flow through a stratum of sand and gravel?

A. I know of no reason why it would not.

24. Can you give us the reason why it will? If so, state it.

A. Sand and soil being of a porous nature, whether either mixed or separate in their respective parts, will allow water to pass through them freely where there is sufficient head to force the water through or by the action of a pump to drive the water through.

25. State whether or not the particles of air are smaller than the particles of water.

4508 A. Air is a lighter body than water and will pass where water will pass.

26. State whether or not air will pass through places where water would not pass.

A. It will.

27. If a body of water is found in the earth in a sand and gravel stratum would or would not the air pass through the earth to that water more readily than the water would pass from the surface of the earth down to the stratum?

A. Think it would.

28. In case you wished to draw water from a sand and gravel stratum in the earth by a pump would it make any difference with the operation of the pump or with the passage of the air on the water in the earth whether you put the pump down into the water through a hole that had been made by driving a rod through 4509 superincumbent earth or in a hole made by an auger and lifting the dirt out or in a hole made by digging down with a spade and throwing the dirt out?

A. None whatever.

29. Do you (know) what the estimated pressure of the atmosphere is on the surface of the earth? If so, state.

A. Fifteen pounds to the square inch.

30. Have you ever seen any experiments made with an air pump to demonstrate the pressure of the air.

A. We had experiments before the class years ago, but I don't remember much about it.

Adjourned until Thursday the 26th day of Feb., 1880, at 8 o'c'k a. m.

Feb. 26th, 1880.

Met pursuant to adjournment.

All present.

31. State whether you have ever heard of or seen what is known as "driven wells."

A. I have heard of and seen what is known as a "driven well."

4510 32. Where did you first see such a well?

A. On or near the land where the experiments heretofore described were made.

33. Designate with ink on the plate heretofore shown you where said well was situated and describe in words to the commissioner, so that he can write it out.

A. I have marked it here on the plate with a heavy circle on the northwest part of block three (3), of Stoughton and McClure's 2d add. to the village of and now city of Independence.

34. Now, state what you saw there in regard to that well, and give the particulars and any connection you had at the time with parties who were at work at it.

A. I saw the 1st well that was driven on the land heretofore described. The men in question that were driving the well stood on a box and with a sledge hammer were driving a tube or round barrel of iron into the ground. Being a little inquisitive, I asked him what he was doing and he said he was making a well. Not seeing
anything that looked like a well and not even knowing that
4511 the tube was hollow, I considered by his answer that I was
sold; asked no more questions and proceeded home. Soon
after, having occasion to pass that way—think it was the same day—I found a pitcher pump attached to the tube, from which they were pumping water freely. The pump stood about 16 or 18 inches from the ground. I know it was the same day.

35. Did you see this well after that day? And, if so, state how many times and how long you remember of its being there.

A. I passed the well two or three times a day for a period of two or three months. It being a great novelty at that time, a great many persons would stop and water their horses as they were passing, and made remarks about the easy manner in which a well could be made.

36. Does this plot upon which you have designated show the block where you live?

A. I live on block 24, in Stoughton and McClure's 2d addition, lot 8.

37. Now, state whether there were any buildings or other obstructions between this well and your house so but that you could see the well from your house.

4512 A. There were no houses, buildings, or any other obstruction at that time.

38. State whether or not you frequently saw persons using this well during the time it remained there.

A, I have; lots of people used it. It being a peculiar stratum of very cold water it was generally resorted to for a very cold drink.

39. State what building and improvements you now remember was on this same block where you say this well was when the well was there?

A. There were no buildings, fences, or other improvements on the same block at that time; it was all open common.

40. What buildings and improvements — now on the block west of the one the well was on at the time you say the well was there?

A. No improvements whatever; it was like now, open common.

41. What improvements have been made on the street between these two blocks at the time *the time* the well was there?

A. None whatever; it was just as nature made it.

4513 42. What improvement was on the block north of the one the well was on when you say the well was there?

A. Immediately north of the well were two one-story houses; east of that there was a small brick house; east of that was a story-and-a-half house, wood, and east of that still was another one-story building.

43. Look at the plot that has been introduced by the complainant and marked Exhibit "A" and state whether this block north of the street correctly represents the situation of the buildings there at the time this well was there or at the present time.

44. Now, will (you) take the pen and designate with red ink the positions of the buildings at the time the well was there?

A. The red lines on this now represents nearly the buildings as they then were.

45. At the time this well was there did you know S. S. Allen?

A. I did.

46. Is the block that he lived in at that time shown on the plot marked Exhibit "B?" If so, designate the place with an ink mark and give the description to the commissioner.

4514 A. I have designated the place as the northwest cor. of block seven (7).

47. Was there any other building on the north part of that block at — time? And, if so, designate.

A. I have by a lot northeast cor. of the block marked "residence."

48. Do you know who lived in the building on the northeast cor. of block 7—if so, state who it was—at the time the well was there?

A. I think his name was Brown. His given name I don't know.

49. What was the date at which you saw this first well?

A. In the month of May or June, of the year 1860 or 1861.

50. Did you see a well of that kind on that lot in any other year?

A. I did, in 1865 or '6.

51. Designate by a red ink mark on plot Exhibit "B" where such well was, and designate it so as the Commissioner can write it out.

A. It was on the northwest corner of block 3, near where the first well was driven.

52. Were there any improvements on that block at the time
4515 the 2d well was put down; if so, what were they?

A. There was a small one-story house very near, and a little east of this well there was a residence on the southeast cor. of the same block.

53. Between the time of the 1st well being put down and the time of the 2d one had you heard anything about these "iron tube" or "driven wells?"

A. I had read of them.

54. Had you seen any in the meantime other than those you have described?

A. Did not.

55. Between 1865 and 1868 did you hear of these "iron tube" or "driven wells?" If so, state how frequently.

A. Well, they were pretty plenty about those times.

56. Did you see any of them made along about that time?

A. There was one driven on the same block (3) at the time the Presbyterian church was built.

57. Did you know D. S. Lee and C. C. White and William Marshal in 1861?

A. I did.

4516 58. Do you know of them going into the war in a company raised in this county?

A. Yes; they were officers in Company E, 5th Iowa Infantry.

60. Do you remember when it was, with reference to when that company was raised, that you saw this 1st driven well?

A. I have located the driven well in '60 or '61, and the company left here in June, '61, I think.

61. State whether you have seen any evidence that air was in the earth to any depth; and, if so, state what the evidence is. Give the particulars.

A. A tube of a pump of a driven well when made of common iron, driven in the ground in the water and the tube kept constantly in the water, and full of water shows that air is present in the water by the fact of the oxygenation process that is constantly going on inside the tube, filling the water with red particles of iron rust, thereby demonstrating the presence of air,
4617 because the process of oxidizing could not take place in a
vacuum. The same process would demonstrate the air in the earth, because everything drawn into the tube is drawn in from the lower end, which is kept constantly below the surface of the water.

The direct examination rests.

Cross-examination:

1. You have taken considerable interest in the suits proceeding for the infringment of Green's patent, have you not?

A. Not in the suits, but in the utter impracticability of the Green process in making a well in the soil of Iowa.

2. Have you not attended meetings of the opponents of the patent and made speeches urging the people not to pay the royalty?

A. I have never been in the inside of any meeting and never have made a speech before any body of men for or against the Green patent.

3. Have you not talked a great deal on the street against it and elsewhere?

A. I have said there is not to-day a drive well according to
4518 the Green patent used for the purpose of pumping water
within the State of Iowa, and such a well cannot be constructed. I have said that the Green patents is a perfect impracticable thing and I have said it a thousand times.

4. Then you have talked against the patent on the street and elsewhere frequently?

A. A thousand times would imply a good deal of frequency.

5. You have manifested a good deal of interest, then, in trying to defeat this patent?

A. Believing it to be a swindle, I would like to see it defeated.

6. Then, believing it to be a swindle, you so interested yourself in it as to make declarations adverse to the patent a thousand times or more?

A. I have stated, believing that the Green patent to be perfectly impracticable, that you might with the same propriety drive an iron tube into a pig's ass and call it a church organ as to drive a tube into the ground and call it a well.

7. You have talked a good deal with different parties about
4519 seeing this first well you speak of?

A. The right to talk has never been denied me.

8. You have spent considerable time in canvassing that branch of this subject and talking it up with Mr. Lake and others?

A. Oh, I have talked when the subject came up, and spent a couple of days in the experiments heretofore spoken of.

9. Has it not come up very often (before) Mr. Lake and others interested in these wells?

A. Oh, no; not very often. I have told Mr. Lake what I know about the drive wells and how I knew it.

10. About how often have you and Mr. Lake talked about it?

A. Oh, maybe a dozen times.

11. Have you not spent considerable time in making inquiries of different parties about this well that was first put down and the situation of the property surrounding the same?

A. Oh, I have asked some questions on that subject.

12. What did you do that for?

A. Because I had a mind to.

13. Who asked you to do it?

4520 A. Have no recollection of any one asking me to do it.

14. You are very positive, are you not, that this first well that you say you saw was not constructed substantially in the manner pointed out in reissue letters patent 4372, issued to Nelson W. Green?

A. I know nothing about the construction of that well. They had commenced driving the tube into the ground before I saw it and completed it after I left.

15. Are you not sure, from the fact that it worked well and furnished plenty of water, that it was not constructed substantially in the manner pointed out in Green's patent just referred to?

A. Taking our experiment for a guide made on the day and date aforesaid, it must have been constructed in some other manner than according to the Green drive well.

16. You say now and you also say that you have said a
4521 thousand times that a drive well could not be made in Iowa
soil according to Green's patent, and it therefore follows, does it not, conclusively that this first well you say you saw was not constructed substantially in the manner pointed out in Green's patent?

A. The well in question, so far as I know, was constructed in identically the same manner as a Green drive well, which consisted in the driving of the tube from the surface of the ground down to water.

17. Don't you know that that well was not constructed according to Green's patent, for the reason that the same worked well—would give plenty of good water?

A. I presume that the well was constructed in all the details of a drive or driven well the same as the Green drive well, but presume that on the point of the tube was a section of a foot or more of the
lower end of the pipe bored with holes covered with a screen
4522 wire cloth with a plug in the bottom, as is not claimed in
the Green patent.

18. Will you please answer the last question and leave out your presumptions and tell what you know about it?

A. With the exception of the construction of the point, the process was identically the same as in the Green drive well.

19. But you are satisfied that it could not have been substantially the same throughout?

A. I don't know nothing of the construction of the point.

20. But, from the fact that a well constructed according to Green's patent won't work in Iowa soil, you know, of course, don't you, that that 1st well you saw was not constructed substantially according to Green's patent?

A. The well was constructed substantially according to the mode of the Green patent, which consists of driving a tube into the ground
to water, &c., and then put on a pump.

4523 21. Please describe the &c., will you?

A. When the tube is driven into the ground in constructing a well according to the Green patent, after the same has been driven into the water, the pump is screwed on, primed with water, and — proceed to pump water if you can; that is my meaning of &c.

22. But in Iowa soil, when you proceed to pump water after putting the pump in the ground, substantially as the Green patent, water won't come, will it?

A. Without a plug in the bottom and a screen wire-cloth over the holes in the bottom of the pipe, as per Green's patent, in any soil consisting of fine sand, either in Iowa or anywhere else, the Green drive well will not work as a well.

23. Just rewrite the same question.

4524 24. But in Iowa soil when you proceed to pump water after constructing the well substantially after the manner of Green's patent the water won't come, will it?

A. In our experiment on the 22nd and 23rd day of April,
4525 1879, with a copy of the reissue of the Green patent with us,
we constructed a well according to the Green patent and we
could not get any water through it.

25. But in Iowa soil when you proceed to pump water from a well after putting the same down substantially according to the Green patent the water won't come, will it?

A. In our experiment made on the 22nd and 23rd day of April, 1879, with a copy of the Green reissue before us, we proceeded to construct a well according to the said patent and pump applied and well primed and water would not come.

26. Do you refuse to give any other answer to this question than these?

A. I don't refuse to answer any question; I will state all the facts as far as — know.

27. But in Iowa soil when you proceed to pump water from a well after putting the same down substantially according to the Green patent the water won't come, will it?

4526 A. In Iowa soil, consisting of sand exclusively, water will not come.

Adjourned for noon.

1.30 P. M.

Met pursuant to adjournment.

All parties present.

28. Did you ever make any experiments or see any made, in constructing drive wells or wells of any description in Iowa soil, except at the time you seen these experiments made in the spring of 1879?

Interrogatory 28 withdrawn.

29. Did you witness an experiment or take part in making an experiment in constructing a drive well or wells of any description in Iowa soil, except what you saw at this place in making the experiment of 1879 that you refer to?

A. Saw a part of the drive well in 1860 or '61; saw nearly the whole of the operation of the drive well of '65 or '66; that is all I recollect at this moment.

30. Who was present in constructing or aiding in constructing the 1st drive well you saw?

A. I don't know the parties.

31. Was there any of the parties who lived in Independence or Buchanan Co.?

4527 A. There was one man present at the time the 1st well was driven, that I recollect of, but I can't call his name—yes, Kimball was the name.

32. Was his name C. T. Kimball?

A. Can't say; I could tell by going to my books.

33. What was his business at that time?

A. Kept a public house, is my recollection.

34. When and what house did he keep?

A. What is now known as the Merchants' Hotel; he was keeper of that hotel with another man.

35. What was he doing—anything?

A. I think that he occasionally put on a pair of tongs and loosened the pipe in the driving process; otherwise he was there the same as I was—looking on.

36. How many men were there aiding in constructing this well? Describe them particularly.

A. The principal man in constructing the well, I never saw him before or behind or since.

37. Where was he stopping in town?

A. Don't know, only by report.

38. Where was it reported that he was stopping?

4528 A. At the house now known as the Merchants' Hotel, Independence.

39. Was he an old or a young man?

A. Well, I should think he was a man from 25 to 35 years.

40. Anything said about what they were putting it down for?

A. Only that they were making a drive well.

41. Was they putting it down permanent or only for an experiment?

A. I did not inquire and don't know; only that there was no house there and no known use for a well.

42. What time did you say you come to Independence?

A. I come to Independence on the 29th day of May, 1856.

43. How long had you been living in the house that you was then living in when you saw this well constructed?

A. Four or five years.

44. How long before you saw this well constructed had you received a deed for the property you were then living on?

A. Four or five years—that is, the one lot where my house is.

45. Was there a blacksmith shop on the corner just north

4529 of the place where you saw this well at the time you saw it?

A. No, sir.

46. How long was it before there was one there?

A. Of my own knowledge I don't know.

47. Was there ever a blacksmith shop there and, if so, by whom was it kept?

A. It was kept by a man by the name — Kays.

48. What years do you remember of there being a blacksmith shop kept there?

A. I could not give you the dates; I can go home and consult my books and give you the name.

Counsel for complainants here requests the witness that at the coming in after the next adjournment that he consult his book and give the dates when the blacksmith lived there and the date when the blacksmith shop was there.

Witness here says that he cannot give the date of the blacksmith shop, but he can give the name of the party and the date when he lived on the premises.

4530 49. Who lived in the first house east from the corner and due north from the corner on which you say you first saw this well and at the time of seeing such well?

A. John E. Trexler.

50. Was he a blacksmith?

A. He was not.

51. How near to his house was the blacksmith shop located?

A. There was no blacksmith shop there at that time.

52. Where was it with reference to Trexler's house that he lived in when it was there?

A. It was just west, if it was on the same lot. The first answer to the question was that there was no blacksmith shop on the lot when Mr. Trexler lived there.

53. How long after Mr. Trexler lived there was the blacksmith shop there and where was it located with reference to the house Trexler lived in?

4531 A. The blacksmith shop was located on the southwest corner of the same lot Trexler was on. I don't recollect how long it was.

54. Who was clerk of the court of this county at the time you first saw this well?

A. I think it was E. Brewer.

55. Who was county auditor?

A. Did not have any in those days.

56. Who was county treasurer?

A. Don't know.

57. Who was sheriff?

A. Leander Keyes.

58. Who was representatives in the Legislature from this Co.?

A. Don't recollect.

59. Who was State senator at that time?

A. I don't recollect.

60. Who was Gov. of the State in reference to the time the 1st well was put down?

A. Don't recollect.

4532 61. Was the town of Independence incorporated at that date?

A. There was no such incorporation known at that date or at any other time.

62. Was this city or town incorporated at that time?

A. This city was not incorporated at that time.

63. When was it incorporated?

A. Well, to the best of my recollection, I should say in the fall or winter of 1864.

64. Please state when and where you first saw a steam engine.

A. Well, I think about the first steam engine I ever saw was in 1829 or '30; I think it was on a steamboat in New York or between Albany and New York, or between New York and Providence, Rhode Island.

4533 65. When and where did you see the first mowing machine?

A. Well, sir, I could not give you the date of it or when or where.

66. Can you state when and where you first saw a washing-machine that was patented?

A. Could not tell you.

67. Can you state when you first saw or knew of a telegram being sent over the wires?

A. I can recollect the time when Morse wanted an appropriation from Congress to establish a wire between Washington and Baltimore, and that the theory was hooted out of Congress as being utterly impracticable. The year and date I don't remember. I cannot state when I first knew of a telegram being sent over the wires.

68. You have stated that you first saw this well marked on the map put down in 1860 or '61. Now, please say how you can locate that well as to time when you can't tell who was Gove-nor of the State or remember definitely as to any of the other machines or devices to which your attention has been called. 4534

A. At the time that the 1st drive well was driven on block (3) as before stated, it was all an open country—there were no buildings or fences on block 3, or at the time the well was driven, but in the fall of '61 a house was built on the S. E. cor. of block (3), and the summer of '63 or '64 a house was built on block (3) near to and east of where the first well was driven. This last house spoken of was occupied by the man that built it, a Mr. Hill, who lived in it when the 2d well was driven. The drive well was to me a novelty coming directly under my own personal observation; being interested in the production of water from the soil for our own use was the reason that I took particular notice of this drive well and the manner it was made.

69. Did you regard the driven well a greater novelty than the steam engine or the transmission of messages over the wire, and did it create a greater impression upon your mind than did the steam engine or a knowledge of the practical use of electricity over the wires? 4535

A. When I first saw the steam engine I was comparatively young, also the telegraph, but the drive well had come before my observation when I was interested in the quickest, easiest, and cheapest method of obtaining water from the ground.

70. Was there any other well driven on the place where the first

well you saw and have described as put down, at any time after that one was taken up; I mean other than the wells you have described?

A. I don't know as there were; I don't know of any other.

71. If a well had been driven and in use at the same place where this 1st well you have described was located, in any of the years 1862–'3 or 1864, from the position of your dwelling and the frequency of your passing this point you would have observed it, would you not?

A. I think I would.

4536 72. I understood you to state in your direct examination that there would be no difference in the operation of air upon the water in the water-bearing strata, well, or well pit, whether the tube was projected in an open, bored, or driven well; you have also stated that the weight of the atmosphere or atmospheric pressure was fifteen pounds to the square inch. Now, if the air should be removed from the well tube of the driven well, placed tightly in the earth into the water-bearing stratum, and the water should raise in the pipe or tube to the top, please state what power, force, or princip*al* operates to produce such a result.

A. Atmospheric pressure.

Adjourned until Friday, Feb'y 27th, at 8 o'clock a. m.

FRIDAY, *Feb'y 27th.*

Met pursuant to adjournment.

All parties present.

73. Then the removing of the air from the tube thus placed would create a vacuum, and the water would rush and fill it, would it not?

4537 A. A complete vacuum nature abhors; any power applied to a tube exhausting the air in part, water follows up the tube in proportion as the exhaustion takes place, and consequently rises in the tube.

74. Would not the pressure of the atmosphere through the earth on the water-bearing stratum force the water to this point where the vacuum is created in the pipe, as long as a pump should be worked on the top of this tube, or until the water in the water-bearing stratum is exhausted?

A. As long as the pump is worked, of course it would, until the water got below the end of the pipe or any holes made therein; then the water in the pipe would sink to its natural line; the atmospheric pressure would not force the water into the tube without the aid of the pump drawing the water upwards.

(No other answer to make.)

4538 75. Then the atmospheric pressure on the water-bearing strata does not operate to force the water into a vacuum created in the pipe?

A. The atmospheric pressure on the water does force the water in the pipe as far as any artificial means are produced to keep up the vacuum in the pipe, water rushing in from the surrounding soil of the water-bearing strata in which the tube is placed.

76. In your direct examination you stated that a well constructed according to the specifications in "Green's patent" would not work in Iowa soil. Now, please state particularly the reasons why a well thus constructed would not work in Iowa soil.

A. The Green patent calls for an open tube without any plug in the bottom, which, being forced down into the sand, plug- the said tube up with sand so firmly that no pump ordinarily used can remove the sand; consequently no water (whatever) could get into the tube.

4539 77. Then if a plug should be placed in the bottom of this tube and a screen cover the perforations on the side and the pipe thus placed firmly in the ground in a water-bearing stratum and a pump attached it would work well, would it not?

A. The Green patent does not call for any such conditions as stated in the question; there is no plug in the bottom of the pipe claimed under the Green patent. There are no perforated holes in the pipe, only to facilitate the flow of water, as stated in the patent, under certain conditions, and the holes in the pipe are not covered with screen-wire cloth or any other substance, as per the patent, but a pipe constructed with holes bored in the lower end from one to two feet and covered with screen-wire cloth, firmly soldered thereon, with a plug in the bottom, driven down into the water-bearing strata of the earth will draw water, providing the sand is not so fine as to run through the screen, fill up the tube, and stop the flow of water, which tube, so constructed, is entirely outside of the Green patent or the reissue of the same.

4540 78. Suppose in a level country, where the formation is sand, gravel, and loam, a well to be dug 20 ft. deep, 2 feet in diameter, walled up in the usual way; and suppose there is to be 3 ft. of water in this well; then suppose a driven-well tube, with a plug in the bottom and perforations in the side 18 inches from the lower end and covered with a wire screen, and such a pump attached to the top as is usually used in driven wells; and then suppose this pump and tube to be placed in this open well with its point reaching within two inches to the bottom; then suppose a tube and pump in all respects similar to the open well be driven or placed in the earth 20 feet distant and with its point reaching to the same depth in the water-bearing strata as the one in the open well, both pumps entire are exactly similar, the only difference in these wells
4541 being that one tube is in an open well with the water open to the atmospheric pressure and the other is a driven well with the iron tube forming the lining of the well; then suppose both pumps to be worked simultaneously and with the same power, which well, in your opinion, would be exhausted first?

4542 A. Both well tubes being constituted identically the same, projecting into the water the same distance, operated by the same power at the upper end, the water in the open well would be exhausted first, because the pressure of the atmosphere upon the surface of the water is free and unobstructed by any intervening substance and the water would be forced into the tube, the atmospheric pressure acting more quickly on an open body of water than on a body of water under any obstruction to a free passage of air.

79. Then suppose, without making any other change in the construction of the wells, that the open well should be filled up to the top with the same formation as taken therefrom, what would be the change in the productive capacity of these wells, if any, from the position and condition heretofore last described?

4543 A. Both would stand on an equality and both ought to pump water alike.

80. Are you acquainted with D. S. Deering?

A. I know him.

81. Do you know when he moved to the west side of the river, and do you know the number of the lot and block on which he now resides, without consulting the map?

A. I do not; I don't know when he moved; he is in town and can answer for himself.

82. Consult the map which is in this office and answer the question.

A. He lives in lot 1 & 2, in block 7, in Stoughton & McClure's 2d addition to the village, now city, of Independence.

83. Did you live on the west side of the river, on the site you have described and stated you lived on when you saw the first well put down, when Mr. Deering moved to the west side of the river?

A. I don't know the date Mr. Deering first moved on the west side of the river; I lived where I now live since 1856.

84. Same question reread.

4544 A. I can't answer it any different.

85. State, if you please, whether or not there were any buildings on block 7, other than the one Mr. Deering occupied at the time Mr. Deering moved across the river, other than the one he occupies in lots 1 & 2, block 7?

A. Having stated that I did not know the time that Mr. Deering moved on the west side of the river can't say there was a house on the N. W. cor. of the same block *was* built before the house now occupied by Mr. Deering was built.

86. When was this house built on the N. W. cor.?

A. Not being a resident of the State of Iowa I cannot answer. Part of it was built after I come here; the front part of the house was built before I came here.

87. State, as near as you can, when the other part of the house was built.

A. Have no record to go by and don't know.

88. What year was the house built that Mr. Deering now lives in?

4545 A. Have no record to go by, and don't recollect.

89. How much further from where you lived, if any, is lots 1 & 2, in block 7, than the 1st well you have described as located, and was there any buildings and obstruct*ures* between lots 1 & 2, block 7, and where you lived?

A. The Deering House was 11 or 12 rods further off from the well, and at that time there was no obstruction between Mr. Deering's house, that now is, and mine.

90. Were you in the habit of going to the well frequently for water—meaning the well that you say was put down in '60 or '61?

A. No.

91. Do you know Samuel Parker?

A. I used to.

92. Do you know when he moved to Independence; if so, state when?

A. I do not know.

93. Who kept the Gibb's House in 1860 or 1861?

4546 A. I do not —.

94. Do you know when Linoun Hall moved to Independence?

A. I do not.

95. State what office- D. S. Lee, C. L. White, and William Marshall held in Company "E," 5th Iowa Infantry, in 1861.

A. D. S. Lee was captain; the offices the others held I cannot tell without consulting the adj't gen'l's report of the State of Iowa.

96. Can you state whether or not the well that you say was put down in 1860 or '61 was put when you say you saw it, before D. S. Deering moved on block 7, on the west side of the river?

A. The well in question was put down in the month of May or June, 1860 or '61, as heretofore stated; I do not know the date when D. S. Deering moved where he now resides, as heretofore stated.

97. Was this well in question put down before or after D. S. Deering moved on block 7, on the west side?

A. The well in question was put down in the month of May
4547 or June of 1860 or '61, and I do not know when D. S. Deering moved on the west side of the river.

98. Do you refuse to give any other answer to question No. 97 than the answer you have given?

A. If I am allowed to consult the records of the court-house I might find out when D. S. Deering moved on the west side of the river and give a different answer.

99. Question No. 97 has no reference to dates, but requires an answer as to whether you know or not which of these events preceded the other, and you are now requested to answer the question as to whether you can state whether the well in question was put down before or after Mr. Deering moved over the river or built his house there?

A. The well in question was put down in the year of '60 or '61, and I do not know when Mr. Deering moved on the west side of the river, and can't state without consulting the records.

4548–4549 Redirect:

Int. 1. In your cross-examination the counsel for the complainants asked you if you had not talked a great deal against Green's patent, against which this suit is brought, and you stated in reply that *that* you had said a great many times that it was utterly impracticable to make a well in Iowa soil by the process described in Green's patent. You may now state what there is in Green's patent that you consider impracticable, and why you so consider it.

4550 A. The Green patent consists of driving a solid round rod with a bulge on the lower end into the ground, making a hole down to water slightly larger than a pipe, to be introduced when the rod is taken out; the lower two feet of the pipe to be slightly tapered to two (2) feet to the lower end, without any plug in the bottom, with holes in the side from 18 inches to 2 feet, not covered with any wire-screen cloth, to be put into the hole from whence the rod would be drawn; owing to the sandy soil construction, immediately, as soon as the rod is withdrawn from the water, the sand and water flows back and fills up the hole as high as the water naturally comes; the putting of the tube into this place without a plug in the bottom or a screen covering the hole, being driven down to position—that is, with a foot or more of water with the highest hole on the pipe—the pipe becomes filled with sand and packed so tightly that no water can be drawed through the tube; therefore "Green's

4551 patent," in my opinion, is utterly impracticable.

2. State whether or not, in your opinion, if the tube put down in the hole made by the rod had a plug in the lower end and small holes driven in the pipe above, the well would work in that way in this soil.

A. It would depend altogether upon the size of the hole drilled in the pipe; if the holes were drilled so fine that fine sand would not work through them, then it might be a success.

3. Is there anything in the soil of Iowa to prevent the driving down of the tube or pipe? If so, state.

A. A good many places there is rock and clay.

4. In your reply to cross-interrogatory 15 you say "that, taking our experiment for a guide, you think the well that you first saw on the west side of the river was not made according to the process of Green's patent." Now state what difference there would have to be in order to make a well a success.

4552 A. You would have to have a plug in the bottom of your pipe, a fine screen-wire cloth over the holes drilled on the sides that must go below the surface of the water, in that manner and that only, in my opinion, can a well be made a success on that ground.

5. Would it not be a success if the holes in the pipe were very small?

A. If small enough to prevent the flow of sand through the holes it would.

6. Somewhere in your cross-examination you said that there was no blacksmith shop cor. of the block north of the block where this well was. Can you now state how long after that well was there before the place was used as a blacksmith shop?

A. I think Mr. Keyes came into possession of that property in '65, and I don't recollect of any shop being there until he built one and used it as a blacksmith shop.

4553 7. You were asked, in your cross-examination, when you first saw steam engines and telegraph. Now, state whether you had not heard and read about these things before you saw the engine or telegraph.

A. To the best of my recollection I saw the first steam engine when I was about 7 years of years of age, and have read about the telegraph and mode of operation of the same before I ever saw it.

8. Had you ever heard of a "drive well" before you saw these men making one in block 3, as described by you?

A. No.

9. Was there anything in the circumstances attending your seeing any of the machines named by the complainants' counsel in the cross-examination that caused the date to be fixed upon your mind.

A. Going from Augusta, Oneida Co., N. Y., to Providence, R. I., over the usual travelled route, via the Erie canal by steam-
4554 boat from Albany to New York and from New York to
Providence, R. I., the steam engine became indelibly fixed in my mine as one of the wonders of the world. It is my impression that when the mowing machine was first introduced I was then living in a section of country where there was a good deal of timber and the grain was all harvested by cradle. I have nothing to call my mind to any of the other machines mentioned.

10. Was there anything in the occupying of the county offices in this county that called your attention particularly to them at the time?

A. Except to Mr. Keyes, the sheriff of the county in '56, the year that I came here. Living in his house I come to know that he was sheriff of the county. I also, on reflection, know that Byron C. Hale was sheriff of the Co. in '60 and '61 instead of Leander Keyes, as I think I stated Thursday, Mr. Hale having resigned before the completion of his full term and going into the army. I know of Mr. John V. Westfall being sheriff of the Co., but of my own knowledge can't state the year.

4555 11. Did the change of the officers make any change on your mind at the time?

A. No, sir.

12. Did the change in the State officers make any impression on your mind at the time?

A. I have a faint recollection of Mr. Grimes being Governor of the State, and also Senator Kirkwood, having by him been duly commissioned to examine those claiming exemption from military service.

13. In the hypothetical question propounded to you by complainants, which is No. 78 of the cross-examination, would not the wall that was laid up in the dug well, as stated in that question, have a tendency to prevent the water from flowing into the well?

A. It might in a certain sense. Any obstruction placed in the water would obstruct its natural flow.

Redirect rests.

4556 Recross:

1. Have you obtained information since you have been examined here in this case which has caused you to change any of your answers in effect?

A. Not materially so; in the case of Mr. Keyes yesterday my mind was intently fixed on 1856, and when I said he was sheriff, as then stated, I thought he was sheriff of 1856.

2. Who have you talked with since and who has talked with you about this matter since your examination?

A. I talked with Mr. Peck and met Mr. Deering this noon and asked him when he moved into the house he now lives in.

3. What did you talk to Mr. Peck about and what information did he give you?

A. Mr. Peck asked me if I did not make a mistake in saying Leander Keyes was sheriff in 1860 & 1861; I told him if I so stated it I had.

4. Did you talk with the defendant?

A. No.

5. Do you know anything of your own knowledge about the bottom of the tubes to the 1st well you say you saw?

A. Do not.

GEORGE WARNE.

4557 Subscribed in my presence and sworn to before me this — day of ——, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4558 Perry Munson, being produced, sworn, and examined on part of the defense, deposed as follows:

1. What is your name, age, residence, and occupation?

Ans. My name is Perry Munson; my age is a little past 51; residence, Independence, Iowa; am administrator of the estate of James Jameson.

2. How long have you resided in Independence?

Ans. Permanently since 1857.

3. Where did you reside and what was your occupation in 1861 and 1862?

Ans. I resided on a farm known as the Gray farm, near- 2 miles east of Independence, Iowa; was farming at that time and was a partner in a grocery house at that time in Independence; also one of — firm — Munson and Dunham.

4. Did you at about that time hear of a well being made by driving an iron tube in the ground and attaching a pump to the top of the tube?

A. I did.

5. Did you go to see a well of that kind?

A. I did.

6. State where the well was located. Give the town, county, and State, and, if a "platted" town, give the block where it was located.

4559 Ans. Located in Independence, county of Buchanan, State of Iowa, near the corner of Main and Center street-, on the west side of the river.

7. Look at the plate here shown you and marked Exhibit "B," and state whether that plate correctly shows the blocks and streets as laid out in the vicinity of that well.

Ans. It does.

8. Will you now take red ink and mark a little circle on that plate and describe to the commissioner so that he can note it?

Ans. It is near the N. W. corner of block 3, as represented by this plate.

9. Describe to the commissioner the appearance of what you saw there at that time.

A. An ordinary gas pipe inserted in the ground, to which was attached an iron pump, commonly termed a pitcher pump.

10. State whether there was any curbing round this pump.

A. No; there was nothing round it but the earth.

11. How high was the pump from the ground?

A. I should think about 2½ feet above the ground, from the ground to the top of the pump.

12. From the appearance of the gas pipe as you saw it there how would you say it was put in the ground?

4560 A. I should say it was either forced or a hole bored to the same size of the pipe.

13. State if you noticed that the pipe filled the hole at the surface of the ground.

A. I did.

14. State whether you pumped water from it.

A. I did.

15. State what the flow of water was when you pumped.

A. I should say about the same a pump of that size would give under any circumstances that I have seen them used.

16. What improvements were on block 3 at that time?

A. Don't remember of any on the north half.

17. What improvements were on block 4?

A. Not any.

18. At the time you saw this pump was there anything going on on block 4; and, if so, what was going on?

A. There was a party there playing cricket ball there that afternoon.

19. Did you know any of the persons that were there playing cricket ball at that time?

A. My recollection is that C. F. Herrick and C. F. Putney; am not positive, but that is my recollection now; I do not recollect any others.

20. What year was it that you saw this well there?

4561 A. Am not positive as to the year; can fix it near by some circumstances. It was in '61 or '62. If it was in '61 it must have been in the fall or the last of the summer, and if it was in '62 it was in the summer.

21. Have you any data from which you can fix that it was in 1861 or 1862? If so, state fully what it is.

A. I fix it that it was when Durham and I owned the farm together. We bought the farm in November of 1860. I bought him out in March, 1863; I am not certain as to the month, but think it was March; I came up from the farm; Durham called my attention to it, thinking it might be useful to us, as we were troubled for well water on the farm. My reasons for thinking if it was in the fall of the year 1861, we had plenty of water and rain the fore part of the season and no lack of water until fall, and the summer of '62 was dry and we were troubled for water.

22. Was not the latter part of the summer of '61 dry as well as the fall?

A. We had plenty of rain until after stacking—I remember that distinctly.

23. Did you go and see this well at the time Mr. Dunham called your attention to it?

A. I did.

24. How long did you examine the well at that time?

A. But a very few minutes.

4562 25. Did you at that time go up near where they were playing cricket ball?

A. Yes; I went over on the ground a moment.

26. Did you see this well after that?

A. I did not, to my recollection.

27. Did you at any time see another well looking substantially like this one?

A. I saw one on the same block at quite a little distance from where this one was located on the same block.

28. State what way from this one and when it was you saw the other one.

A. It was east of the one I described and in the summer of '68.

29. Between the time that you saw this first one and the time you saw the one in '68 did you know of any other well of that kind being on that block?

A. I did not.

(Signed) PERRY MUNSON.

Subscribed in my presence and sworn to before me this 26th day of Febr'y, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4563 C. F. HERRICK, being produced, sworn, and examined on the part of the defense, deposed as follows:

1. What is your name, age, residence, and occupation?

A. My name is Charles F. Herrick; am 44 years of age; reside at Independence, Iowa; am a watchmaker.

2. How long have you resided at Independence, Iowa?

A. Nearly 24 years.

3. Was you a member of a club known as a cricket club that existed in Independence in '58 to 1861?

A. I was.

4. State what grounds they occupied as their cricket grounds during these years.

A. That block that is now occupied by Z. Stout as a residence. It is on block 4, Stoughton & McClure's 2d add. to Independence.

5. State whether or not you were in the Military service during the war of the rebellion from, 1861 to 1865.

A. I was.

4564 6. When did you go into the service, and when did you leave it, and what was your employment?

A. I entered the service in September, 1861, and left the service in August, 1862. I was a musician.

7. Between the time you left the service and the time you went into it was you in Independence, Iowa?

A. I was not.

8. State whether in 1862, after you left the military service, there was any cricket club at Independence; if not, what became of it?

A. I am quite certain there was not any cricket club after that date. I kept my tools, my bat and pads; kept them in the cellar; never used them after that date. The members of the club were in the service. I think a majority of them since entered the same.

Direct rests.

Cross-examination:

1. During the years you say the club was in the habit of occupying the grounds in block 4 how frequently did they occupy the grounds in the pursuit of that pleasure or exercise?

4565 A. Why, quite frequently; every day at times, and again there would be a number of days that we would not occupy it.

2. Were there any other parties, boys or unorganized clubs or gatherings of people, who would engage in that or a similar sport during the time you have named—I mean up to the time you entered the service?

A. I don't remember that there were any others.

3. Were you in the habit of going to these grounds or in the sight of them other than the times when you went to play cricket?

A. No, sir; not often. I remember that we used to repair the grounds sometimes.

4. Then it is possible that there might have been parties other than your club playing on this ground during this time and you not know it?

A. I suppose it might have been; I should not have objected if they did not disturb our rights.

5. Can you swear positively that after the time you say you left the service, August, 1862, that there was no ball playing on these grounds?

A. There was no cricket playing after that date that I ever heard of, but we used to play base ball on the same grounds for some years after.

6. Were you in the habit of or did you meet with others on this ground in August, September, or October of 1862, and engage 4566 in playing ball of any kind on this ground?

A. I don't remember when we began playing base ball.

7. What is your best recollection as to whether you was on these grounds either engaged in or witnessing a game of ball on these grounds in 1862, after you returned from the service?

A. I can't call to mind any instance of that kind.

8. Can you swear positively that you were not there either engaged in or witnessing a game of ball after you returned from the service, in 1862?

A. I don't think I was; I cannot swear positively.

Cross examination rests.

Redirect:

1. Will you now describe how the grounds were fixed up and what were the tools used?

A. The bowling ground was laid out north and south; was 66 feet long, between wickets, by about 10 feet wide, I should think, and was located about on the summit of the ground, about the highest point on the block. At each end of the bowling ground there were wickets; they consisted of sticks, three sticks, stuck into the ground about 3 inches apart and rising above the ground 4567 to the height of about 20 inches, with two other sticks, called bales, lying across the top of the perpendicular sticks. There was a "batter" at each end of the bowling ground supplied with a bat, which was about 32 inches long, the blade of the bat 4 inches wide and 18 inches long, and the handle made the balance of the bat. Then came the cricket ball—a hard ball, about 18 inches in circumf-rence.

2. State whether or not anything was done to fix this bowling ground that you speak of, such as graded and the like?

A. The ground was graded—the bowling ground; the soil was not the best for cricket playing, and it was suggested that we procure clay and cover the soil, which would make it a hard bowling ground, which we did.

3. How was the ground arranged for playing base ball?

A. I don't think we made any arrangements of the grounds for that special game, for the reason that at that time there was no organized base ball club, but we played on the old cricket ground.

4. State whether you used the same kind of bales, wickets, and bats in base ball; if not, state the difference.

4568 A. We did not use the same tools and implements; there is no similarity between the implements used in the two games, excepting that the balls are about the same size, although not made exactly alike; a base-ball bat may be of various lengths and sizes, not exceeding a certain limit; they are round, the length of the bat tapering from one end to the other, with a "nob" on the smaller end to assist in holding the bat firmly; there are no wickets nor bales used in the game of base ball.

(Signed) C. F. HERRICK.

Subscribed and sworn to before me this 26th day of Feb., 1880.
[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4569 PERRY MUNSON recalled:

1. Describe, as nearly as you can, the way the ground was arranged and the kind of implements the parties were using at playing ball on block 4, Stonington & McClue's 2d addition, at the time you saw this "driven well" at or near the N. W. cor. of block 3, as you have stated?

A. I am not able to describe the ground or the manner of playing the game; I can only say they had balls and bats; I only stayed a few moments.

2. Was there any peculiarity about the bats that attracted your attention, as to whether they were flat or round bats?

A. I am not able to describe the bats.

3. State whether or not there were any sticks stuck in the ground behind the batters that seemed to be a part of the play.

A. I could not state; I derived my information from parties playing that said they were playing cricket.

4. State whether it was different from any game of ball you had before seen.

A. It was entirely new to me; I had not seen the game before.

Rest.

4570 Cross-examination:

1. Who told you they were playing cricket?

A. My recollection is there were three persons there at that time that I knew; I could not say who told me; I spoke to some person I know; there was C. F. Herrick, C. F. Putney, and Philip Bartle, and I think it was one of them that told me.

2. Can you swear positively that those three men were there at the time you have referred to, and that one of them told you they were playing cricket?

A. I could not swear positively; that is my recollection of it at this time.

3. When was your attention first called to this particular incident since you say you saw them playing cricket?

A. I think it is a year ago this last summer; some person asked me if I had any recollection of the well and the cricket club.

4. Who was this person? And state the conversation, as near as you can, so far as it relates to this subject-matter.

A. I could not say who was the first person; I had conversation, I think, with three persons.

4571 5. Give the names, as near as you can, of the three, and give the conversation, as you can, with each or any of the three.

A. I had a conversation with Col. Lake, Dr. Warne, and, I think, D. S. Deivrung; the conversation was substantially the same with each; they asked me if I remembered at what time this well was put down, and if I remembered at what time there was a cricket club here; my answers were that it was during the time that Dunham and I owned the Gray farm.

6. Have you had any conversation with the defendant, George Hovy, on this subject? If so, state what he said to you.

A. I don't remember any conversation with him.

7. At that time had you ever seen what is known now as the popular game of base ball?

A. I had, and played it often.

8. Have you not heard the question of this well being put down, to which you have referred in your examination, and the collative question of cricket club and the enlistment of soldiers and 4572 dates connected therewith discussed frequently during the past year in connection with the driven well and the suits now pending?

A. I have heard some discussion as to the time that these things took place.

Cross-examination rests.

Redirect:

1. Did this discussion affect your recollection of these matters in any manner?

A. They did not.

(Signed) PERRY MUNSON.

Subscribed in my presence and sworn to before me this 26th day of Feb., 1880.

[SEAL.] (Signed) FRANK JENNINGS.

(Endorsed:) Filed Oct. 20, 1880. E. R. Mason, clerk.

4573 C. F. PUTNEY, being produced, sworn, and examined on the part of the defense, deposed as follows:

1. What is your name, age, residence, and occupation?

A. My name is Charles F. Putney; am 40 years old; reside in Independence, Iowa; am a jeweler.

2. Where did you reside from 1858 to 1861?

A. In Independence, Iowa.

3. Did you know of any organization in Independence, Iowa, known as the cricket club; and, if so, was you a member of the same?

A. Now, I don't remember whether I was a member or not. I saw them play and am not positive whether I played with them, but have seen them play a good many times.

4. During the war of the rebellion—1861 and 1865—was you in the military service? And, if so, state what company and regiment you were in.

A. I was in Company "E" of the 5th Iowa Infantry.

5. State, as near as you can, when you left the State with that company.

4574 A. The latter part of August or the fore part of September, 1861.

6. When did you next visit Independence, after leaving with that company in 1861?

A. In the fall of 1864.

Direct rests.

Cross-examination waived.

(Signed) C. F. PUTNEY.

Subscribed in my presence and sworn to before me this 26th day of Feb., 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4575 THOMAS SHERWOOD, being produced, sworn, and examined on the part of the defense, deposed as follows:

1. What is your name, age, residence, and occupation?

A. Thomas Sherwood; am 60 years of age; reside in Independence, Buchanan Co., Iowa; am a livery man.

2. How long have you resided in Independence?

A. 22 years.

3. What business was you engaged in when you first came to Independence?

A. Hotel keeping.

4. How long did you continue in that business?

A. I think from 2 to 3 years.

5. What business did you next engage in, and how long was you in that?

A. The next business I engaged in I got possession of the hotel in the fall of 1860. C. T. Kimball and I were partners the winter of '60 and '61. I bought out Kimball in '66 and run the hotel myself. Well, I kept it a year or two and sold out.

6. What business did you next engage in, and how long have you been in the business?

A. The next I went into was the livery business, and still remain in it.

7. Have you at any time heard of a well being made by driving a tube in the ground and attaching a pump to the top? And, 4576 if so, state where you first heard of that method of making a well.

A. In the winter or spring of 1861 a gentleman stopped at the hotel and exhibited to C. T. Kimball and myself—I don't know what he called it—that he could drive into the ground, attach a pump to the top, and would pump from a well. The idea was that he could pump water from the ground; make a well. That was the first I heard of it.

8. Describe this thing that he said he could drive into the ground and make a well.

A. According to the best of my recollection, well, it was a hollow tube and on one end there were holes in the tube. He claimed by driving that in the ground and attaching a pump you could pump water the same as from a well—making a well of it.

9. State whether anything was said — how far he had to drive it into the ground; and, if so, what was said.

A. I cannot remember. I took but little stock in it, but Kimball did. Kimball and he had a long talk about it. I
4577 did not talk much about it. I don't know what they said.

10. Was there anything said as to whether it was necessary to drive the pipe or tube until it reached water? If so, what was said on the subject?

A. All I remember is that you could drive it into the ground and pump water; that is all I remember of his claiming.

11. About what was the size of this tube?

A. Oh, I should judge about an 1½-inch diameter.

12. State whether this man had a pump with him, and what kind of a pump.

A. He had a pump, and, I think, a pitcher pump.

Adjourned until 1.30 p. m.

Met pursuant to adjournment.

All parties present.

13. Describe what other implements, if any, this man had, that you remember.

A. I can't describe any particularly, except that he had pumps and tubes.

14. Did you at or about that time hear(?) that this man had made a well as he told you he could?
4578 A. Don't remember that he said he had driven any here.

15. At any time after he had shown you these tools did you hear that he had made one?

A. A short time after he came back to the hotel and said he had driven one at the other side of the river.

16. Did you go to see the well that he said he had driven?

A. I did.

17. Describe what you saw when you got there.

A. Well, I saw the pump that looked like the one exhibited to us and a tube driven into the ground.

18. How high was it from the surface of the ground to the top of the pump?

A. I think the tube was about a foot out of the ground; then the pump was put on top of that.

19. State whether you pumped water from it.

A. Oh, I did several times. It was a novelty to me.

20. State, as near as you can, where you found this pump and tube.

A. It was on the N. W. cor. of the first block, east of block where Woodard lived; now Z. Stout's.

21. Look at the plate now shown you and state whether that plate correctly represents the blocks and streets in the vicinity where you saw this well; and, if so, state what block and part of the
4579 block the well was on.

A. This plate does resemble the block, and the well was located on block 3, N. W. corner.

22. Did you see that well at any other time than the time you first saw it? And, if so, state, as near as you can, how many times.

A. I never saw the well before having this conversation, but saw it many times afterwards as I was passing by.

23. Did you pump water out of it more than once; and, if so, how many times?

A. Yes; I pumped water there several times. I can't state how often.

24. State whether there was any platform or curbing round the pump; and, if not, how was it held in position.

A. I remember distinctly when I last saw it there was no support around it. It was simply a tube driven into the ground and supported itself. What was done afterwards I don't remember.

25. Was this man stopping at your hotel the time he showed you this pump?

A. He was.

26. What hotel was you then keeping and by what name is the hotel now known?

A. I was keeping what was then called the White Hotel, now the Merchants' Hotel.

4580 27. Did you have any one in partnership with you in the hotel business at that time; and, if so, who was it?

A. I had; his name was Charles T. Kimball.

28. What time did you and C. T. Kimball commence keeping that hotel together, and when did you quit keeping it together?

A. In October, I think, 1860, we commenced, and remained partners, I think, until about May, 1861; can't tell the date to a day.

29. Have you any data other than your memory by which you fix the date in October, 1860, when you went into partnership with Kimball in the hotel?

A. I have. I borrowed some money from Ami H. Trask in order to go into the hotel, and I gave him a chattel mortgage on a hack, and I still have the mortgage. It is recorded. I then have receipts showing that Kimball & Sherwood were partners in that year.

30. Have you that chattel mortgage with you; and, if so, will you produce it and allow the commissioner to identify it as an exhibit to your testimony in this case?

A. I have; you can have the mortgage.

The chattel mortgage is here presented and marked Exhibit "C."

4581 31. Now state whether this chattel mortgage was given at or about the date it purports to be and for the purpose for which you have stated in a previous answer.

A. It was.

31½. Have you any of the receipts that you speak of; if so, will you produce them and allow the commissioner to make exhibits of them to your testimony?

A. I have; here is one from J. K. Hallina, per his clerk, dated April 20th, 1861, marked Exhibit "D," and here is one March 8th, 1861, from Tweeddall.

Receipts introduced and marked Exhibits "D" and "E."

32. Have you any receipts or data to show when Mr. Kimball went out of the hotel and the partnership ceased?

A. Yes; I have.

33. Will you please produce the receipt and allow the commissioner to mark it an exhibit to your testimony, and state about the time that receipt was given with reference to the time Kimball left the hotel?

4582 A. I have a receipt, dated April 27th, 1861, for $35.42 that was given to apply on the purchase-money for his interest in — hotel. Mr. Kimball left the hotel somewhere about the 1st May.

Receipts offered in evidence and marked Exhibit "F."

Adjourned until March 3d, 1880, at 10 o'clock a. m.

WEDNESDAY, *March 3d*, 1880.

Met, pursuant to adjournment, at 10 o'clock a. m.

All the parties present.

Rickel, West and Eastman consent to proceed with out waiting until the 4th of March.

35. State whether or not A. M. Trask paid you the money called for by the mortgage you have handed to the commissioner; and, if so, state for what purpose you have used said money.

A. I did receive the money from Mr. Trask and used it in connection with going into the hotel.

36. State whether or not you paid C. T. Kimball the money called for by the receipt you have shown and given to the commissioner. And, if so, for what purpose was the money paid to him?

4583 A. I did pay Mr. Kimball, and for the purpose of a part payment of the interest he had in the hotel at that time.

37. State whether at any other time than from October, '60, to May, '61, you was in partnership with said C. T. Kimball. And, if so, when, and in what business?

A. I never was in partnership with Mr. Kimball before that time or since in any kind of business.

38. State whether the time you saw this well was before or after Kimball left the hotel.

A. It was about the time Kimball left the hotel, and I could not say whether it was before or after. I could not say whether it was April or May that I saw the well.

39. Are there any other facts or circumstances that you now remember that enables you to fix the time of the occurrence? And, if so, state what they are.

A. There is one other fact or circumstance, and that is that Col. Lake and wife came and boarded with Sherwood and Kimball the winter of '60 and '61.

40. State whether they ever boarded with you at any other time than during that winter.

A. I think not. They might have taken a meal *at* sometimes, but don't remember of their boarding.

4584 41. State when they quit boarding with Sherwood & Kimball, with reference to when you first saw this well.

A. I don't remember just when they quit; they boarded there the same spring I saw the well.

42. State whether you know of other persons using this well other than yourself.

A. I can't remember; I have been driving out and stopped there when they have been using the well; don't remember particularly of any one.

43. Was there anything round the well to keep persons from the well; and, if so, what?

A. I cannot remember whether there was or not; when I first saw it there was nothing round it.

44. How far did this well stand from the travelled road at that time?

A. I cannot state; it might have been a rod or a rod and a half.

45. Was there much travel on that street at that time?

A. I should think there was, it being Main street.

46. Was there any obstruction between the well and the street to prevent persons passing from seeing the well?

A. Why, I don't think there was; don't remember of any.

Direct rests on this witness.

4585 Cross-examination:

1. Are you in any manner interested in the result of thisaction?

A. Not in the least.

2. Are you a member of any organization organized for the purpose of defeating "Green's patent" and defending this action?

A. I am not.

3. Was Mr. Kimball, your former partner, residing in Independence for some time after you bought him out?

A. I think he did; how long I could not tell.

4. State about how long as near as you can.

A. Why, it strikes me, perhaps, 2 or 3 years.

5. Were you on friendly terms with him during that time?

A. Yes, sir; so far as I know, most friendly terms.

6. Did he board with you after you bought him out; if so, about how long?

A. Well, I don't know really; he might have stayed there a week or two; it strikes me he did.

7. He was in the habit of coming round the hotel quite frequently?

A. Oh, I think so; don't remember particularly.

8. How long did you keep this hotel after you bought out Kim-Kimball?

A. As near as I can remember, 2 or 3 years; near the close of the war.

9. Did you keep a hotel record during the time you kept hotel there?

4586 A. We did.

10. Did all persons who stopped with you register on the record as is customary in our days?

A. We aimed to have them all register.

11. What became of these registers?

A. Well, really I could not say. I think 5 years ago we had a terrible fire here and I lost most of my papers. I think they were burned. My property was burned in the fire. I have made a thorough search for the registers and could not find them.

12. Who was living on block 3 at the time you say you saw this well?

A. I do not know; I don't know that I could name a person.

13. Who was living on block 4 at that time?

A. I think block 4 was vacant at that time.

14. Who was living on block 23?

A. I don't remember; I think it was vacant; think there was one little house there, but don't remember that.

15. Who was living on block 22 at that time?

A. I can't tell the persons that were living there.

16. Can you name any one person that was living on block 22 at that time?

A. I cannot call to mind a person.

17. Who was living on block 7 at that time?

A. I could not be positive. S. S. Allen lived there, but whether at that time I could not say.

18. Who was living on block 25?

4587 A. Cannot remember. It was very thinly settled there at that time.

19. Who was living on block 24 at that time?

A. It was either Tom Bullene or Joe Chandler.

20. Were they the only parties living on that block at that time.

A. I think not, but I could not mention the other names.

21. Was D. S. Deering living on that side of the river at the time you first saw this well?

A. I could not answer; don't know that I knew him at that time.

22. You will observe that block 7 lies next in a diagonal line to block 3, the block on which you say this well was placed. Was there any building or improvement on that cor. of the block lying nearest to block 3?

A. I think there was a small house; that is my recollection.

23. What part of that block did S. S. Allen live on?

A. The N. W. cor.

24. Who lived on block 3 at the time you first saw this well?

A. I could not state positively if any one; don't know if Pondo House was built then or not.

25. Describe, as particularly as you can, the hollow tube which you say this stranger showed to you.

4588 A. It was a tube about an inch and a half, smooth one end; I remembered he showed me there were holes in the lower end. He claimed that was where the water came up into the tube.

26. How long was it?

A. I don't remember the length.

27. Was it forty feet long?

A. No; I should think not.

28. State, as near as you can, how long it was.

A. To the best of my knowledge it was from 6 to 8 feet; that is my remembrance of it.

29. Where was this tube when you saw it?

A. My remembrance is that it was in the basement of the hotel.

30. What time in the day was it when you saw it?

A. I can't remember; it seems it was right away after breakfast one morning, but I can't state positive.

31. Who was present when you saw it?

A. Charles T. Kimball is all the one I can remember.

32. Was Charles T. Kimball the one who showed you this pipe and explained its use?

A. No; it was the stranger stopping at the house.

33. What was this man's name, and where was he from?

A. I can't state; that is what bothers me.

34. About how large were the holes in the bottom of this tube?

4589 A. Oh, I can't describe the size of them. I can imagine, in my mind, about as large as the small end of the stem of a clay pipe.

35. About how many of these holes were there, and about how far did they extend up the sides, if at all?

A. I can't state how many holes there were. I think they extended up 5 or 6 inches.

36. Was there any screen covering the holes in this pipe?

A. I don't remember of anything being said about a screen; it has gone out of my mind, if there was.

37. Was this an iron tube lined with galvanized iron or zinc?

A. I could not say.

38. Did you look in the tube?

A. Don't know whether I did or not; don't remember.

39. Was it painted?

A. I think not.

40. What kind of a pump was shown you?

A. It was a smallish pump; if I remember, I think he called it the pitcher pump.

41. Was there anything about this pump that particularly called your attention; any patent mark?

A. Nothing; for the simple reason that I took no stock in what he said—took no interest in it whatever. I did not believe he could get water in that way.

42. Did you ever see a pump or tube of the same kind before or after that time?

A. Never see one to notice them before or after.

4590 43. Do I understand you to state that you never seen a a pump of the kind shown you at that time in your cellar before you saw this one, nor since, to the best of your recollection?

A. I say this: I might have seen them before and since, but not particularly to go and examine them. I have seen them since, but not to go and examine them—plenty of them.

44. Did you ever see this pump and tube after it was shown you in the cellar?

A. I can't say that I ever did for I did not see the well drive.

45. Then this stranger said to you that he could make a well that would furnish water by driving that tube into the ground and attaching a pump to it, did he?

A. I think the conversation was directed to Mr. Kimball in my presence. Kimball took stock in it; I did not.

46. Then you heard him say to Mr. Kimball that he could make a well, by driving that tube into the ground and attaching a pump to it, that would furnish a good supply of water, did you?

A. That was my understanding of it at the time.

47. Was this tube that was shown you that had holes in the end open or did it have a plug in the end of it?

4591 A. I could not say as regards the plug; it seems to me now that it was sharp at the point.

48. During the past year has there not been a good deal of agitation on this driven-well question in the community where you live and has not the subject of driven wells been a subject of very frequent conversation in your presence?

A. I think there has been a good deal of agitation upon the subject; I avoided all of it.

Adjourned until 2 o'clock p. m. for dinner.

2 O'CLOCK P. M.

Met pursuant to adjournment.

All parties present.

49. Have you not heard a good deal about the Hovy's patent and Green's patent?

A. Yes; I have heard both spoken of and talked about.

50. Have you not heard a good deal about the difference between them and about pipes, tubes, and pumps in connection with these wells?

A. Oh, I have heard something about them; I have heard it discussed; never got hold of exactly what it was.

51. Have you heard George Hovy talk about this suit—about beating the patent of Green's?

4592 A. Very little, if anything.

52. Did you ever hear him say that a well after Green's specifications would not work in Iowa soil?

A. No; Mr. Hovy has had a very little to say to me for the last year.

53. Have heard considerable talk about beating this patent, have you not, by putting down this well you have been testifying about?

A. I have heard some say that they thought they would beat in this suit against Green, but I don't remember that they based their opinion upon this well that had been drove in.

54. Who has talked to you about testifying in this case?

A. No one in particular. Col. Lake asked me if I remembered the circumstances what I have been testifying about, and I told him I did.

55. What circumstances did he call your attention to?

A. Why, I first notified him, Mr. Lake, of the fact of that gentleman stopping at the hotel and exhibiting the well and afterwards
driving it on the other side of the river. Why, he never re-
4593 quested me to remember anything; he got my affidavit.

56. Question repeated.

A. Not any that I know of.

57. And why did you just testify that Col. Lake called attention to the circumstances you have just been testifying about?

A. I was not aware that I have made any such statement.

58. What conversation did Col. Lake have with you, Mr. Sherwood, on this subject? Repeat it as near as you can.

A. We had but very little conversation. I think, after telling Mr. Lake what I knew about it, he requested me to find the old register if possible. I remember that at another time he wanted my evidence. I told him I would come any time. He then called at my house and said he would want me the next morning—that would be Wednesday morning instead of Thursday morning.

59. How came you to remember Col. Lake's boarding with you as an incident to fix the date of this well?

4594 A. When travelling with the marshal to serve notice upon
men who had the drive wells we stopped at Jesup; at C. T.
Kimball's hotel Mr. Kimball and myself talked the matter over; that is how I came to get at the fact and the circumstances.

60. Then you did not remember that Col. Lake boarded with you at the time this well was put down, as you have stated, until the same was mentioned to you?

A. I had not thought anything about it until that time; never been spoken to on the subject until then.

61. Did you afterward have any conversation with Col. Lake about his boarding with you at that time?

A. I don't remember distinctly; I might have said to him that he boarded with us that winter; don't remember that I did or not.

62. How many months did Col. Lake board with you, and what did you charge him for board?

A. I do not remember how long he boarded with us, nor what we charged him; we charged $4 a week and $3.50 per week for board; I don't remember the room; my impression is we charged him $7.00 per week.

63. Who else boarded with you at that time?

A. Carlos White was one; I cannot remember; remember Carlos White distinctly.

4595 64. What was the population of Independence in 1860?

A. I can't give an accurate —; I don't know.

65. How do you know the man you say showed you the tube and pump drove that tube and made a well, as you have described, in 1860 or '61?

A. Why, I don't know it; I told you before I did not see it done.

66. What time in the year was that well put down?

A. Well, it was, according to my best recollection, the last part of April or forepart of May; about the time Kimball went out.

67. Was anything said about a patent by this stranger?

A. Don't remember whether he claimed a patent on it or not; I got the impression it was a patent, but how I don't know.

68. Anything about selling territory, or about that being an experiment?

A. Don't know what he might have said about it; I took no stock in it and would have nothing to do with it; he had a good deal to say to Kimball about it.

69. Did you take any stock in it after you had seen it operate?

A. Not enough to purchase; it was a wonder to me; that is all.

4596 70. Did that kind of well go into use at once after this one was introduced?

A. I think not here.

71. How long did this well remain there?

A. I can't tell accurately; it was taken up during the summer or fall—don't know which—that is, I think it was.

72. Where did you next see a well of that kind?

A. The next well I saw, to the best of my recollection, was a few years after; was the year they built the Presbyterian church.

73. Please give a description, as full as you can, of this man who showed you the tube and pump?

A. I can't describe him; according to my recollection he was a middle-aged man; I should judge a medium size.

74. Now, is it not a fact that this well instead of being a driven well was a dug well about twenty feet deep and covered over about 6 feet from the top with plank; tube you saw projecting out of the ground extending through the plank into the open water in the bottom of this well and then filled up from the plank to the top and nicely sodded over up to and around the pipe?

A. I did not see them drive or make the well and do not know anything about it.

4597 75. Might it have been made in that way and presented the appearance it did when you saw it?

A. It might; I can't say.

Q. 76. You said you made Kimball a part payment with the money you got from Trask.

Withdrawn.

77. Have you ever owned a driven well?

A. I never have.

78. Did you not state, in the presence of Mr. Rickel and others, that you could not describe any tubes, pipe, tools, pump, or anything the man had at your hotel as described by you—that it was so long ago that you only had a dim recollection of the matter?

A. I think I stated to Mr. Rickel and others that I could not give an accurate description the same as I have stated here.

Cross-examination rests.

Redirect:

1. Was it while Kimball was in the hotel, either as partner or boarder, that the man was there with this first well you saw?

A. My recollection of it is that it was while he was a partner that this man was there.

2. Did Kimball remain in the house after the partnership ceased more than 2 weeks?

4598 A. I can't state.

3. Did he remain there as a boarder all summer?

A. Oh, no; only a short time.

4. Were there any houses on block 22, as shown by the plate marked Exhibit "B?" If so, state what they were.

A. I can't state positively; but it seems as though there was an old building on the cor., about half way down the block; east from the cor. there was one or two old buildings. That is all I remember on the block — that time.

5. You stated in your cross-examination that Tom Bullene or Joe Chandler lived on block 24; do you now remember any other person who lived on that block at that time?

A. There was a building on the south cor. of the block and one west from the S. E. cor., but I can't remember who lived in them.

6. Did you know Dr. George Warne at that time; and, if so, where did he live then?

A. I knew Dr. George Warne at that time, but could not swear where he lived.

7. Had not you seen pitcher pumps before you saw this one in the basement of the hotel in 1861?

4599 A. I think I stated I saw them before and numerous times since.

8. Had not you seen iron piping before that time?

A. Yes; I had.

9. State whether the pump you saw on the west side of the river resembled the one you saw in the basement of the hotel.

A. I did; I so stated it before.

10. When you first saw this well was there any appearance of earth having been thrown up around there?

A. I did not notice or think of anything of the kind.

11. Whereabout was the well located when they were building the Presbyterian church, with reference to the one you first saw there?

A. It was down near the Presbyterian church, east of the first well about 5 rods.

12. About how high was that pump from the ground?

A. I don't accurately remember; it strikes me that the pump itself was nearer the ground than the other one.

18. Have you ever examined these drive wells or the tube points and screen points?

A. No, sir; never have.

Redirect rests.

(Signed) THOMAS SHERWOOD.

Subscribed in my presence and sworn to before me this 26th day of Feb., 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4600 *Testimony of C. B. Kandy.*

C. B. KANDY, being produced, sworn, and examined on the part of the defense, deposes as follows:

1. What is your name, age, residence, and occupation?

A. My name is C. B. Kandy; am 50 years old; reside in Buchanan Co., Iowa; am city marshal of the city of Independence.

2. How long have you resided at Independence, Iowa?

A. Have resided here since November, 1859.

3. State whether or not you saw what was called a well made by driving an iron tube into the ground; and, if so, state where you saw such a well.

A. Yes, sir; I saw such a well, which was said to be a drive well, in this city, on the west side of the river, south side of Main street. It was driven on a lot west of the Presbyterian church. The same lot is now vacant. I think the lot was owned at that time by Alexander Smith.

4. Describe how the well and pump looked as you saw it there.

A. It was an iron pipe driven into the ground with a pump attached to it; it was an iron pump.

4601 5. State, if you remember, what kind of a pump it was.

A. I don't know that I can tell; I was there a good many times; it was an iron pump.

6. About how high was it from the ground to the bottom of the pump?

A. I had the impression that it was from 3 to 4 feet to the top of the pump above the ground.

7. When was it that you saw this well?

A. I think it was in 1860; I first thought it was in 1861; I was doing business in 1861 on the west side of the river.

8. Did you go into the military service during the late war?

A. I did.

9. What year did you go into the service?

A. In 1862.

10. When was it that you saw the well with reference to the time you went into the military service?

A. It was before I went into the army.

11. About how long before?

A. Well, it must have been a year and a half before I went into the army.

12. What time in the year was it that you saw this well?

4602 A. I could not state the month; it was in the summer months; it was during warm weather.

Cross-examination:

1. Did you see this well made?

A. I don't think I did; I don't think I went over there until after they had it in operation.

2. Then, so far as you know of your own knowledge, it might have been a tube placed in a reservoir of water with this pipe inserted therein, the top cover- over and neatly sodded up to and around the pipe?

A. Yes, sir; it might have been, so far as I know of my personal knowledge.

3. Who was living on b-ock 7 the time you first saw this well?

A. Well, sir, I don't recollect.

4. Name any person who resided in the vicinity of the well that you have described.

A. Samuel Sherwood, Sanford Clark, and old man Sourbeet.

5. Where did Samuel Sherwood live in 1860 with reference to that well, and how far from it? State as near as you can.

A. The direction would be N. E. Well, I should think about 40 rods.

4603 6. Where did Sanford Clark live in 1860 with reference to that well, and how far from it?

A. Am not positive where he lived there; he built a new house; it must have been, I think, the same distance as Mr. Sherwood's—a little south of east.

7. Where did Mr. Sourbeet live in 1860 with reference to that well, and how far?

A. The same direction as Mr. Sherwood—N. E. about 30 rods.

8. How frequently did you see this well that you have described?

A. Well, I saw it quite a number of times.

9. How long did it remain there?

A. I think about 2 weeks; have that impression.

10. What circumstances can you now refer to by which you fix the date of the location of that well?

A. Well, I know that one house was there—that old house; it is there yet; it was before I went in trade on the west side of the river; I was clerking on this side of the river the time the well was put down.

11. Who were you clerking for at the time the well was put down?

A. I think Robert Plane; won't be positive.

12. How long did you clerk for him?

A. I think about a year before the war.

13. When did you quit clerking for Mr. Plane?

A. I think it was in the fall of 1860.

4604 14. When did you go into the army and in what company, and were you an officer or a private?

A. I went in 1862; I went in the regiment as a sutler about the 1st of May, 1862. I joined the 27th Iowa after they had come from Minnesota, where the- went after the Indians. I joined them as they came down the Mississippi river.

15. Where did this regiment then go?

A. We went to Memphis and landed there.

16. How long did they remain there?

A. But a short time; I have forgotten how many days; until they were ordered back to the Tallahatchee river. I remained in Memphis until the regiment returned; they were gone quite a while.

17. Who was with you when you first saw this well?

A. Don't recollect; nobody went with me there; there were quite a number there.

18. Where did you locate in business on the west side of the river in 1861, and what month was it that you moved over there?

A. I located on Main street, cor. Store, west side of the river next the bridge. Oroille Fonda built the store.

19. How do you fix the date?

A. It was the fall before I went into the army.

20. When did you return to Independence the first time after going into the army?

A. In January, 1863, was, I think, the first time.

4605 21. How long did you remain?

A. About a week.

22. When did you next come back to Independence?

A. I think in 1864.

23. How long did you remain that time?

A. I think some two or three days.

24. What was the population of Independence in 1860?

A. Don't know that I could tell.

25. Who was Governor of Iowa?

A. I think old Sam. Kirkwood.

26. Are you positive?

A. I am not positive; I know he was at the first breaking out of the war.

27. There has been a good deal of excitement on this driven-well question, has there not, within the last year?

A. I don't think any great excitement; there has been some talk.

28. You have heard a good deal of opposition expressed to the payment of royalties on the driven wells, have you not?

A. I have heard some.

29. Has there been from time to time a good deal of expression on this subject?

A. I think there has considerable.

30. Have you not heard a good deal said about the date of the putting down of that well that you have testified to?

4606 A. No, sir; I have not heard but a little.

31. State what you heard, as near as you can.

A. I don't recollect of hearing any one say anything about the date; don't recollect now.

32. Have you not heard a good deal of talk about this suit, the Green and Hovy patent and the Independence well, during the last year?

A. I have heard a good deal about this suit, but have but very little about this well.

33. Has the defendant, George Hovy, talked to you any about this suit and about what you could testify to?

A. Don't recollect that he ever spoke to me about it.

34. Has Col. Lake interviewed you in relation to this suit and interrogated you as to the date when this well was put down?

A. He asked me if I recollected as to when such a well was put down; also asked me if I recollected the date; that is all I recollect of his asking me.

35. How long have you been marshal of Independence?

A. For the last two years.

36. How long were you in the army?

A. Three years.

4607 37. What kind of business did you engage in on the west side of the river, and how long were you engaged in it?

A. Engaged in the dry goods business; I think for 8 or 9 months before I went into the army.

38. Now, how long were you engaged in business?

A. About 9 months.

39. What did you do with your stock before you went into the army?

A. Sold it to my partner.

40. Who was your partner?

A. Henry Wilson.

41. At the time you say you first saw this well, you say there were a good many people there; who was there?

A. I don't remember the name of a person who was there when I went over.

42. What did you hear said on that occasion by any one?

A. I heard them say here on the streets that there were some men over there; the men were driving a well over there, and it was a curiosity to me and I went.

43. Who did you hear say this?

A. Could not mention any names now; heard a good deal of talk about it at the time.

44. What was said when you got over there where the well was?

A. They all thought it was a curiosity; they were talking about the well; how it was driven.

4608 45. Who owned this well or had charge of it?

A. I don't know the men's names; there were two men had charge of it; they were stopping here at the Merchants' Hotel at that time; don't know their names.

46. Were you pretty well acquainted with the inhabitants of Independence at that time?

A. Yes, sir; pretty well.

47. You say that there was a good deal of talk about the well; that it was a novelty; did that kind of well go into general use immediately?

A. Don't think it did.

48. What was the name of the boat that your regiment went down the Mississippi on when you joined it?

A. Did not go down on the same boat with them; could not tell.

49. At what point did you join the regiment on the Mississippi?

A. I met the Col. at Lansing, Iowa; I went to meet him; the regiment had not got down there.

50. Who was col. of your regiment and where did you join the regiment?

A. James I. Gellert; I supposed I joined them at Lansing; the regiment was not all there when I got there; the Col. ordered me to join them there; he was there waiting for the regiment.

4609 51. Then you say, according to your best recollection, that that well was put down in the summer of 1860 and remained only a few weeks?

A. That is my best recollection.

Cross-examination rests.

Redirect:

1. I understand you to state, in your cross-examination, that you went into the dry goods business on the west side of the river at Independence, Iowa, with Henry Wilson, the fall before you went into the army; is that the case?

A. Yes, sir.

2. What year was that?

A. The fall of 1861.

3. Is it not possible that this well you say you saw was the spring of the same year you went in with Wilson?

A. It might have been.

Redirect rests.

Recross:

1. But this is not your best recollection?

4610 A. No; that is not my best recollection; my best recollection is that it was in the summer of 1860.

(Signed) C. B. KANDY.

Subscribed in my presence and sworn to before — this 4th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

Adjourned until 8.30 a. m., March 4th, A. D. 1880.

4611 March 4th, 1880—8.30 o'clock a. m.

Met pursuant to adjournment.

All the parties present.

H. A. King, being produced, sworn, and examined on the part of the defence, deposed as follows:

1. What is your name, age, residence, and occupation?

A. My name is H. A. King; am 63 years of age; reside in Independence, Buchanan Co., Iowa; am a farmer.

2. How long have you resided at Independence, Iowa?

A. Twenty years it will be in November; I came here in November, 1860.

3. Where did you reside before coming to Independence, Iowa?

A. In Kalamazoo, Michigan.

4. After coming to Independence, Iowa, did you hear of a well having been made by driving an iron tube into the ground and attaching a pump to it?

A. I did.

5. Did you go to see the well after hearing about it?

A. I did.

6. Where did you find it?

4612 A. On the west side of the river, at Independence, Iowa.

7. State how it looked and what you saw there of the well.

A. Saw a pump attached to a tube about an inch and a half in diameter—something about that.

8. What kind of a pump was it?

A. Well, it is so long ago; it seems to me a pitcher pump; I could not tell certain.

9. About how high was it from the surface of the ground to the top of the pump?

A. Well, it might be 3½ feet or 4; I could not tell.

10. What was the appearance around the tube as to how it was put into the ground?

A. Well, I suppose it was driven in, from the appearance; it had that appearance.

11. Was there anything said while you was there as to how it was made? If so, state what was said.

A. There was; it was said to be a piece of this pipe that was pointed and perforated, tin or fine wire put around the point to keep the dirt out of it.

12. Was anything said about how the pipe was put into the ground? If so, state what was said.

4613 A. Well, it was driven in in sections; that is the way I understood it.

13. Did you see any one pump water from this well?

A. I did; and pumped myself.

14. About how many different times did you see the well?

A. Oh, I presume a dozen times.

15. About how many different times did you pump water from it?

A. Well, I don't remember of only pumping that once.

16. Whereabouts was the well located? Give the description, as near as you can.

A. I don't know the block, but it was on Main street, beyond the Presbyterian church; it was on the south side of Main St.

17. About how far west of where the Presbyterian church now is was this well?

A. Well, it might have been 3 or 4 rods; could not tell exactly.

18. Was there any buildings on that block at the time you saw this well?

A. I think not.

19. Was there any buildings on the block west of that one at that time?

A. I think not.

20. What year was it that you saw this?

A. In 1861.

4614 21. What time in the year was it?

A. I should think, perhaps, it was in the month of May; it was the fore part of the season, I know.

22. By what data do you fix the date in 1861? State fully.

A. Well, I came here in the fall of 1860; just after the presidential election. I was engaged in the livery business. Well, we drove over there; we heard about this pump, and I got out and looked at it; it was a curiosity. I know I purchased that house Brown lives in in the spring of 1861; my deed will show it.

23. When was it that you saw this well, with reference to the time you came here from Michigan?

A. From November to May.

Direct rests.

Cross-examination:

1. State what business you have been engaged in other than farming since you came to Independence?

A. I have been in the hardware business.

2. What other business have you been engaged in since you came to Independence?

A. Well, nothing particular.

4615 3. When did you commence the hardware business?

A. In 1861.

4. What time in 1861?

A. Well, I think the latter part of July, 1861.

5. When did you quit the hardware business?

A. I think I sold out in 1866 for a short time.

6. What did you next engage in?

A. I bought a grist-mill and went to milling.

7. How long did you follow milling?

A. I gave my attention to it 6 months.

8. What did you next engage in?

A. I went back into the hardware business.

9. When did you commence farming?

A. About a couple of years ago.

10. What business were you engaged in before you went into the hardware business?

A. Livery business.

11. When did you commence the livery business?

A. Well, I should think it was about Dec., 1860, shortly after I came here.

12. Who first told you about this well?

A. I could not tell you.

13. Where were you when you first heard of it?

A. I could not tell you.

14. Who went with you to see this well?

A. I could not tell you; it is so long I can't remember.

15. How many went with you to see this well when you drove over there?

A. One, I presume.

16. Who was there when you arrived at the spot?

4616 A. Well, I can't remember; it is so long ago.

17. What time in the day was it when you went over there?

A. I think it was in the forenoon.

18. What day of the week was it and what kind of a day?

A. I could not tell the day of the week; it was a very pleasant day.

19. Do you know of a well being where this well was six months or a year before that?

A. Don't know of any well being dug there at all.

20. Did you see this well made that you have testified about?

A. I did not.

21. Who lived on that side of the river in sight of this well that you have located? Give the names of the persons and the direction where they lived from where you have located this well.

A. I do not know a single individual; I was a comparative stranger and did not know a single person on that side of the river—that is, where they lived.

22. Who told you that the point of — tube was perforated and was covered with wire?

A. I could not tell.

23. It created a good deal of talk, did it, at the time?

A. It did.

4617 24. There has been a good deal of talk and excitement about this driven-well question within the last year or two, has there not?

A. Why, yes; I should say there had.

25. Are you or have you been at any time a member of any organization or association whose object was to defeat the collection of royalties on the driven well, or have you contributed any funds for that purpose?

A. No; in no way, shape, or manner.

26. In the discussions you have heard about this driven well have you not heard a good deal about Green's patent, the point of the tubes and wire screens, discussed?

A. Why, I have heard a good deal about it.

27. Do you know, of your own knowledge, whether that was a driven well or not?

A. I do not; only what was said about it at the time.

28. Did this kind of well go into general use immediately after this well was constructed?

A. I should think not for several years.

29. Who was Governor of Iowa in 1860?

A. I guess you have got me; don't remember.

30. Who was mayor of Independence at that time?

A. That was before we had a city.

31. Did you get one of these wells shortly after seeing that one?

A. No, sir; I never got one.

4618 32. You say you judged this well was driven, from its appearance. If a well had been made some time previous and covered over 6 feet below the surface with plank, and this tube inserted down through the plank into the water, then the hole filled up, soldered over round the pipe, would it not have presented the same appearance to you that it did?

A. I should think very likely it might.

Cross-examination rests.

Redirect waived.

(Signed) H. A. KING.

Subscribed in my presence and sworn to before me this 4th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4619 FRANK L. TRASK, being produced, sworn, and examined on the part of the defense, deposes as follows:

1. What is your name, age, residence, and occupation?

A. My name is Frank L. Trask; am 32 years old last fall; reside in Buchanan Co., Iowa; am a farmer.

2. Where did you reside before you came to Buchanan Co., Iowa?

A. Janesville, Wisconsin.

3. When did you first come to Buchanan Co., Iowa?

A. Well, as near as I can recollect, it was in the first week in May, 1861.

4. Who came here with you?

A. My father, M. W. Trask.

5. While here at that time did you hear of a well that was claimed to have been made by driving an iron tube into the ground?

A. Yes, sir.

6. Did you go to see the well after you had heard of it?

A. Yes, sir.

7. Where did you find it?

A. I found it on the west side of the river, on Main street, on a vacant lot, in Independence, Iowa. 4620

8. On which side of Main street was it?

A. South side.

9. Describe what you saw there.

A. I saw a pump, as near as I can recollect, a pitcher pump, what they call a pitcher pump, I believe. It stood up about 18 inches or 2 feet on a tube.

10. How was the tube held there.

A. I don't think, as near as I can recollect, anything held it. It was driven into the ground; that is what held the tube.

11. Did you see any water pumped from it?

A. Yes, sir.

12. Did you see it yourself?

A. I pumped out of it.

13. On what block was this situated?

A. I don't know the number of these blocks. It is the 3d block from the river.

14. Are there any prominent buildings on this block now? If so, state what are they.

A. Yes; the Presbyterian church, on the northeast corner.

15. On what part of the block above the Presbyterian church was this well that you saw?

A. On the northwest corner, or very near the corner.

16. How many different times did you see that well?

4621 A. I don't remember how many.

17. How long a time do you remember of its being there?

A. Don't remember how long.

18. Have you lived in Independence continually since you came here, in 1861?

A. No, sir.

19. When did you leave Independence after coming here at that time?

A. It was in September or October, 1866.

20. Where did you go then?

A. To Janesville, Wisconsin.

21. How long did you live there at Janesville (Wisconsin) after you went?

A. Well, I lived there until the fall of '67; I won't be positive whether it was '66 or '7; think that it was '67.

22. How long before you started from Independence to go back to Janesville was it that you remember of seeing this well? State as nearly as you can.

A. Well, I see it some time during the summer; I could not state what month it was.

23. About how many times did you see this well?

A. I don't remember.

24. Do you remember of seeing it more than once?

A. Yes, sir.

4622 25. Do you remember of pumping water out of it more than once?

A. No, sir.

Direct rests.

Cross-examination:

1. How long have you been farming?

A. Since last fall.

2. What were you engaged in before last fall?

A. Training horses.

3. How long have you been training horses?

A. I don't remember exactly; six or seven years.

4. How old were you when you first saw this well?

A. Well, I was between 13 and 14 years old.

5. When was your attention first called to the date when you first came to Independence in connection with the well you have described?

A. Well, some time during the summer of '61. I could not state positively when it was.

6. How do you know that was a pitcher pump?

A. Well, that is what they called it; that is all I know about it.

7. That is what who called it?

A. That is what pump men call a pitcher pump now.

4623 8. Who told you it was the spring of '61 that you came to Independence?

A. I don't know as any one told me I came here.

9. Has not the date of your coming here been the subject of inquiry since the commencement of this action, or within the last year?

A. I don't know but what it has; I don't know what others have thought about it.

10. How can you be so positive about the date of your first coming to Independence in May and your leaving for Wisconsin, when 5 or 6 years later, on your return, you can't fix that date?

A. Well, the reason why I am so positive about its being the year that I came here in the spring of '61 it was the first year of the war and the first time I was ever away from home. I went back in the fall to attend school, and I got home the last day of the county fair, and I think that was in September or October, as I stated in my direct testimony.

11. Have you not had a good deal of conversation with others on the driven-well subject and about this well you have testified about during the last year or two?

A. Yes, sir; some.

12. Are you interested, directly or indirectly, in this matter?

A. Not to my knowledge; no, sir.

13. During the last year or two have you not heard frequently
in conversations the statements made that that was a
4624 drive well and that the pump was a pitcher pump?

A. I have heard that that was a drive well a good many times, but I don't remember of having heard that that was a pitcher pump.

14. Who was there when you went over to see this well?

A. The first time I saw this well there was nobody there; I was riding by and stopped and pumped water out of it.

15. Do you know when the Presbyterian church was built?

A. It was built some time when I was not here; don't know what year.

16. Can you name any other building in the vicinity of the location of that well—buildings that were there at that time?

A. I think, as near as I can recollect, the nearest building to it was Mr. Sourbeet's property over there and the Empire House; and Mr. Cobb kept a hotel a little above the Empire House.

17. Did you know Mr. Sourbeer at that time?

A. No, sir.

18. Then you base that answer upon information acquired since your return, have you not?

A. I don't know as Mr. Sourbeer owned that property at that time; the house he now owns stood there at that time, and the old store.

4625 19. Did you go to school during the time you were first here?

A. No, sir.

20. What were you engaged in during that time?

A. I worked for A. H. Trask in a livery stable.

Cross rests.

Redirect:

1. Was the Presbyterian church on this block where you saw the well at the time you saw it there?

A. No, sir.

2. You say in your cross-examination that you had heard that this was a drive well. When was it that you first heard that stated?

A. The summer of 1861 and lots of times since.

(Signed) FRANK S. TRASK.

Subscribed in my presence and sworn to before me this 4th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4626 JOHN A. DAVIS, being produced, sworn, and examined on the part of the defense, deposed as follows:

1. What is your name, age, residence, and occupation?

A. My name is John A. Davis; am 38 years of age; reside in Buchanan Co., Iowa; am a farmer.

2. How long have you resided in Buchanan Co., Iowa?

A. 14 years.

3. Was you in the military service during the late war; and, if so, what company and regiment were you in?

A. I was in Co. "E," 5th Reg't Iowa Infantry Volunteers; also in Co. "F," 5th Reg't of Iowa Cavalry.

4. State when you enlisted in the 5th Reg't of Iowa Volunteers.

A. On the 5th day of July, 1861.

5. Where did your company rendezvous before going to join the regiment?

A. Independence, Iowa.

6. Have you ever heard of what is known as the driven wells?

A. I have.

7. When and where did you first hear of such a well?

4627 A. In July, 1861, in the city of Independence, Iowa.

8. Did you see that well?

A. I did.

9. Describe, as near as you can, where it was located.

A. On the west side of the river and on the south side of Main street and between 30 & 40 rods west from the river.

10. On what block was it located?

A. I don't know the number of the block, but it was near the N. W. cor., if I remember right.

11. Is there any permanent building on the same block now? If so, what one?

A. There is; the Presbyterian church.

12. Look at the plate here shown you, Exhibit "B," of def't's testimony, and point out on that the block where the well was located and give the number as is shown on the plate.

A. Block No. three (3).

13. What was you doing in Independence when you first saw that well?

A. I was going to and from the drill grounds of the said Co. "E."

14. About how many different days did you see that well?

A. Not more than 4 days.

4628 15. Did you pump water out of it; and, if so, how many times?

A. I can't remember that I did, but I drank water that was pumped from the well.

16. Did you see others pump water there?

A. I did.

17. Describe this well.

A. It was on the top of an iron gas pipe, which was sunk in the ground; was what is known as a pitcher pump, and, I should think, a No. 3 size; the base of the pump stood about a foot from the top of the ground.

18. How did this pipe appear to have been put in the ground?

A. To have been driven or a hole bored with a small auger and then driven; there was no large opening.

19. Did the pipe appear to fill the hole in the ground full?

A. It did.

20. Was there anything said at the time about how it was made? If so, state what was said.

A. It was said the pipe — to have been driven in the ground.

4629 21. When did your company leave Independence to go to the war?

A. I believe on the 11th day of July, 1861.

22. Did you go with them?

A. I did.

23. When did you next visit Independence after going away with the company?

A. I think on the 23d day of December, 1863.

24. Since the war have you held any official position in Buchanan Co.? If so, what position and how long?

A. I have; the office of sheriff for 4 years.

Direct rests.

Adjourned until 1.30 p. m.

1.30 P. M.

Met pursuant to adjournment.
All the parties present.

Cross-examination:

1. What business was you engaged in before the war and where did you reside?

A. Farming; resided in Oran, Fayette Co., Iowa.

2. When was this well that you have testified about made?

A. I do not know.

4630 3. Did you see it made?

A. I did not.

4. Do you know, of your own knowledge, that this was a driven well?

A. I do not.

5. If this tube you saw projecting out of the ground had been put in in an open well previously dug, and this well planked over 5 or 6 feet below the surface of the ground, this tube passing through this plank into the water below, then filled up above the plank and sodded up round the pipe, would that be a driven well?

A. No, sir; not as I understand what a driven well is.

6. Do you know, of your own knowledge, that this well was not made in that way?

A. I do not.

7. During what year was you sheriff?

A. In 1868, 1869, 1870, & 1871.

8. There has been a good deal of talk and excitement about this driven-well question during the last year or two, has there not?

A. There has.

9. During the last year or two you have heard a good deal said about that well being put down that you have described—about its being driven, about the pitcher pump, have you not?

4631 A. I have not; I believe I have never talked with but 3 or 4 persons, and that probably within 6 months.

10. Who have you talked with about this well?

A. The first, Col. Jed. Lake asked me if I remembered it; the second was with A. J. Francis, a member of the same company with me; the next, I believe, was with William Codling, and a week or two ago with Tom Sherwood; I do not know whether Mr. Hovey ever said anything to me or not; perhaps he has and perhaps he has not; I would not be positive about that.

11. Have you not heard a good deal of discussion among others on this subject?

A. Not about this well, but about the drive-well business, considerable.

12. At the time you saw this well, as you stated, did you know anything about a pitcher pump?

A. I don't know that I did.

Cross-examination rests.

Redirect:

1. Was there any indications around this well that you saw there in 1861 that showed that there had been any digging there? If so, state what they were.

4632 A. There were none, to the best of my opinion now; and, if there had been I would have seen it, from the fact that there was considerable talk about its being a driven well.

2. Did the talk about this well that you have heard within the last year or two about this well in 1861 change your recollection in regard to this matter?

A. It did not; I never talked with any one that knew about it, except, perhaps, Francis; I asked him about it; also Wm. Codling, and he did not —.

3. Have you seen pitcher pumps since you saw that one; and, if so, state whether they resembled the one you saw in that well?

Redirect rests.

Recross:

1. When did you first see a pitcher pump that you knew to be such?

A. Well, I saw that one, and since 1865 I have known them to be such.

2. How did you know them to be pitcher pumps?

A. Parties calling them by that name and getting bills of them by that name.

3. Are they stamped in any manner; and, if so, how are they stamped?

4633 A. Nothing, except, perhaps, "patented;" and the date and the name of the firm making the pumps may, perhaps, be stamped on the pumps.

4. Do you know they are stamped "patented," with the date thereon?

A. Am not positive.

5. Will you swear positively that you saw a pitcher pump in 1861?

A. Yes.

6. How did you know it to be a pitcher pump?

A. By its resemblance to pumps that I have seen since.

7. Did you see any stamps on it?

A. I cannot tell whether I did or not.

8. You say you have talked with a number of parties about the driven wells. You have been considerably interested in this matter, have you not?

A. I have talked with a few parties, but have no interest either directly or indirectly in the drive-well suits.

(Signed) JOHN A. DAVIS.

Subscribed in my presence and sworn to before me this 4th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4634 E. LEECH, being produced, sworn, and examined on the part of the defense, deposed as follows:

1. What is your name, age, residence, and occupation?

A. My name is Ephram Leech; am 57 years of age; reside in Buchanan Co., Iowa; am a farmer.

2. How long have you resided in Independence, Iowa?

A. 23 years, I believe.

3. Do you know of a book entitled MacKenzie's 5,000 Receipts?

A. I do.

4. Look at the book here shown you and state who is the owner of that book.

A. I am the owner of it.

5. Will you look at the book and give the commissioner the title page of the book?

4635 A. The first is "Five thousand receipts in all the useful and domestic arts, constituting a complete and universal practical library and operative cyclopedia by Collin MacKenzie, author of one thousand experiments in manufactures and chemistry, Philadelphia; published by J. J. Woodward, northeast cor. of Market and 7th streets, 1829."

6. How long have you had that book from which you have just read?

A. I have had it in my possession for at least 25 years.

7. How long have you known of this book?

A. I think I have known of it from 35 to 40 years.

8. Who had it before you got possession of it?

A. My father.

9. Will you now turn to page 500 of that book and read to the commissioner what it says under the head of "To raise water in all situations?"

4636 —. "The finest spring may be found by boreing, which is performed in the simplest manner by the mere use of an iron rod forced into the earth by windlass. The workmen in a few days get to a genuine spring of water fit for any purposes. After the water is found they merely put ten-inch pipes down the aperture and it produces a fine stream, which sometimes rises from 4 to 5 feet high."

10. Will you now allow the commissioner to identify this book by marking his initials and date on the inside the cover?

A. I will do so.

I have marked the book in question with my initials, F. J., dated Independence, March 4, 1880.

Direct rests.
Cross waived.

(Signed) EPHIAM LEACH.

Subscribed in my presence and sworn to before me this 4th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4637 A. J. FRANCIS, being produced, sworn, and examined on the part of the defence, deposed as follows:

1. What is your name, age, residence, and occupation?

A. A. J. Francis; am 51 years old; reside in Byron t'p, Buchanan Co., Iowa; am a farmer.

2. How long have you resided in Buchanan Co., Iowa?

A. 23 years, except what time I was in the army, but my residence was here. My family was here.

3. Did you go into the military service of the Government during the late war?

A. I did.

4. Into what company and reg't did you go?

A. Company "E," 5th Iowa Infantry.

5. When and where did you enlist?

A. I enlisted some time in the month of June, 1861.

6. Where did your company assemble before it went to join the reg't?

A. Independence, Iowa.

4638 7. While at Independence, Iowa, did you hear of a driven well?

A. I did.

8. Did you go to see said well after you heard about it?

A. I did.

9. State where you found it; describe the location as near as you can.

A. As near as I can recollect, it was on the west side of the river, somewheres near where the Presbyterian church now is, on the south side of the road.

10. Describe the well, or what you saw of it.

A. Well, there was a pump in it that we used to get water from and drink. It stood on a grass plot. It was something of a curiosity at the time. There was no dirt removed. There was grass all around. There was nothing to show that there had been any previous excavation.

11. Onto what was the pump fastened?

A. I don't know, as I can't recollect. It was an iron tube pump. Well, I don't know; it seemed to set right on that part of 4639 grass; don't know what was on the ground. I did not see it put in there.

12. Was there anything between the bottom of the pump and the ground that you could see? If so, state what it was.

A. I can't recollect whether there was or not now.

13. How many times did you see this pump?

A. Well, as near as I can recollect, I saw it at least a dozen of times.

14. How many times did you pump water from it?

A. Well, I don't know as I could qualify; the boys used to meet there, and sometimes one would pump for a half a dozen of us; I could safely say twice, anyway.

15. What was the quality of the water you got from it and what was the supply?

A. Well, it was good, wholesome water to drink and the supply was inexhaustible, as far as my information went.

16. What was said at the time in regard to the manner in which the well was made?

4640 A. Well, I was informed it was an iron tube driven into the ground, and, of course, it was canvassed; it was a novelty—something new.

17. What year was this and what time of the year?

A. It was some time in the month of June, 1861.

18. When the company left Independence to join the reg't did you go with them, and what time did they go?

A. I went with them when they went; it's my impression it was the last of June; that is my impression. It has been so long that I have not thought of it.

19. Did this well remain there until the company left?

A. To the best of my knowledge it did.

20. When did you come back to Independence next after leaving with the company?

A. Some time the next Feb. following; I was home on a sick furlough.

Direct rests.

4641 Cross-examination:

1. Mr. Francis, who told you that this was an iron tube driven into the ground?

A. Well, as near as I can recollect, Sergeant Lewis was the one.

2. Who else told you about it?

A. Well, I don't know as I could qualify to any one in particular; it was canvassed among the boys and talked about.

3. When did you return from the army?

A. Well, I was home on a furlough in the Feb'y following June, as I have stated.

4. How long was you home on this furlough?

A. Sixty days.

5. Were you confined to the house during all that time; and, if not, what part of the time, and how much was you out around?

A. I was not confined to the house at all; I was able to be around all the time.

6. Was there any drilling on this square during that time?

A. I had no knowledge of any; I resided in Hazelton t'p; I was not here much.

7. When you returned, in August, 1863, was there any drilling on those grounds during that fall?

A. I had no knowledge of any.

8. Have you not heard a good deal of discussion on the "driven-well" subject within the last year or two among your neighbors and those interested?

A. I have not but very little; most I know about it I get from the public prints.

4642 9. Do you know whether that kind of well went into general use immediately after this one was put down?

A. I do not.

Cross-examination rests.

Redirect:

1. Did the discussion that you heard on this subject in any manner change your recollection of the well?

A. No, sir.

(Signed) A. J. FRANCIS.

Subscribed in my presence and sworn to before me this 4th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4643 A. F. WILLIAMS, being produced, sworn, and examination on the part of the defense, deposed as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is A. F. Williams; am 56 years old; reside in Independence, Iowa; am a merchant.

2. How long have you lived in Independence, Iowa?

A. In all I have lived here some 17 years. During the war I lived in Michigan, and come back in 1865. I went to Michigan about the middle of Nov., '61, and come back in the fall of '65.

3. How long had you lived in Independence before you went to Michigan, in the fall of 1861?

A. I moved to Independence in April, 1860.

4. On what side of the river did you live in 1860?

A. On the east side.

5. On which side did you live in 1861?

A. On the 1st of April, 1861, I moved on the west side.

6. In 1861 did you know the block of land the Presbyterian church now stands on, on the west side of the river?

A. I did.

4644 7. Did you at any time see some men at work on that block? And, if so, state what time of year it was.

A. Well, I saw some men at work there, but I can fix no date in regard to the time. I should think it was about the last of May or 1st of June I passed by there. I was ploughing for corn.

8. State what you saw those men do.

A. Saw them driving down a well when I passed by there. I saw them driving a long iron rod. The first time I saw them I did not stop and ask them questions; saw them there at work. I went by there next day about the same time and there were some there pumping water out of the well and drinking. That time I stopped and drank out of it myself, and several times after.

9. Describe the well—how it looked at the time you drank out of it.

A. It was similar to the driven wells they have now. It might not have been just like them ; it brought up water the same.

10. What could you see above the ground?

A. Nothing but the pump on the top of the pipe.

11. How high was the pipe out of the ground?

A. It might have been a foot and it might have been more. I could not say in regard to that.

4645 12. State whether there was a hole in the ground outside of the pipe.

A. There was none that I saw.

13. What year was it that you saw the well?

A. 1861.

14. By what data do you fix it that year?

A. Well, I went to Michigan that year, in the fall.

15. State whether the well was there before you went back to Michigan.

A. It was.

16. How many times do you remember of seeing it?

A. Oh, I don't know; I saw it a great many times that summer; I passed right by it.

17. Did you hear anything said, at the time you first saw it, about how it was made? If so, state what was said.

A. I could not tell what was said; there was a good deal of talk about it.

Direct rests.

4646 Cross-examination:

X Int. 1. At the time you say you saw them driving the well how many were at work?

A. Not a great many at work; there were a great many looking on; I could not say how many; it would be mere guess-work if I should state; I don't know.

2. Who put the well down?

A. What I could not state.

3. Give the name of any one person that was over there at that time?

A. Now, I think I saw Mr. Kimball; I was passing by with a load of corn; I could not tell really who they were.

4. What were they driving with?

A. Well, I could not say whether they had sledges or mauls; they had some heavy instruments.

5. State what appliances or instruments they had, as near as you can.

A. They had something standing on it; it was elevated some distance from the ground; they were pounding on it; it was an iron rod or something.

6. Can you describe any of the workmen other than Mr. Kimball if you saw him?

A. No, sir; I cannot.

7. You say you saw the well in 1861, and that you were
4647 hauling corn past at that time; where did you get the corn from?

A. I got it from my own farm, a mile and a half south of town.

X 8. Is your recollection of dates and events pretty good?

A. Yes, sir.

X 9. Who was living on the west side of the river, near the well, at the time you saw it?

A. S. S. Allen was living about as near as any one; there were some parties living right opposite to where the well was put down. I don't know who they were; they were tenement houses.

X 10. What direction from the well were these tenement houses?

A. A little north and east.

X 11. What part of the block did S. S. Allen live on and what was the number of the block?

A. Mr. Allen's house was in block 7, N. W. cor. of the block.

X 12. Was there any building on the N. E. cor. of that block?

A. There was a building there, but I could not tell who lived there, certain.

X 13. Describe the buildings that were there, on block 4, at that time, and name the occupant, if you can.

A. There were no buildings on that block.

4648 X 14. Describe the buildings on block 22 and name the occupants, if you can.

A. If I take in that block there were three buildings there; there were two frame houses and one brick house. I won't be certain about the brick house.

X 15. Was there any blacksmith shop on that block at that time?

A. I don't know.

X 16. What buildings were on block 3 at that time? Locate them and give the occupants, if you can.

A. I think at that time there were no buildings on block 3.

X 17. Locate the buildings and occupants of the same on block 24 at that time, if you can.

A. There were four buildings on block 24; on the N. E. cor. Elder Fulton lived; one west of that—Mr. Waggoner owns it now—I don't know who lived in it at that time; the next one, Dr. Warnes lived there at that time. The house on the N. E. cor., Mr. Jordan lived in at that time, where Mr. Chandler now lives.

X 18. Did you know these parties at that time?

A. Yes, sir.

X 19. Did you haul any corn in the fall of 1861?

—. ——.

X 20. Had you heard a good deal of discussion about this well within the past two years?

4649 A. I have heard some.

X 21. You say you have heard some. Now, ain't it a fact that the discussion has been quite general and the excitement quite general in this locality?

A. There has been a good deal said about "drive wells;" there has been considerable excitement.

X 22. What kind of a store do you keep, Mr. Williams?

A. Sell groceries and crockery.

X 23. You sympathize generally with the opposition to the collection of royalties?

A. Well, I have some; not as much as a great many, because I was not interested.

X 24. You have heard a good deal said about the date of this Independence well and the importance of proving it to have been put down in 1861, have you not?

A. I have heard some considerable talk about it.

X 25. Did that kind of well go into general use here immediately after this one was made?

A. I could not state in regard to that; I was not here for 4 years and I could not state.

Cross-examination rests.

4650 Redirect:

Int. 1. In answer to cross-interrogatory No. 17 you state that Elder Fulton lived on the N. E. cor. of block 24. Will you now state whether that is where he lived?

A. I meant to be understood as the S. E. cor.

2. Is the S. E. cor. of block 24 the place where Elder Fulton lived in 1861?

A. Yes, sir; I think it is.

3. Did the discussion that you have heard in 1878 and '9 about these drive wells change your recollection of the well that you say you saw in 1861?

A. Not at all.

4. Are you in any manner interested in any of the suits brought for the infringement of Green's patent?

A. Not in the least.

Redirect rests.

(Signed) A. F. WILLIAMS.

Subscribed and sworn to before me this 4th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

(End.:) Filed Oct. 20, 1880. E. R. Mason, clerk.

4651 Adjourned until Friday morning, March 5th, A. D. 1880, at 8.30 a. m.

MARCH 5TH, 1880.

Met pursuant to adjournment.
All parties present.

THOS. H. TYSON, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. Thomas H. Tyson is my name; am 49 years of age; reside at Independence, Buchanan Co., Iowa; am a grocery merchant.

2. How long have you resided in Buchanan Co.?

A. Came here in 1856 and have lived here ever since.

3. Did you know block 3 in Stoughton's and McClure's 2d add. to Independence, Iowa, in 1861?

A. Yes, sir.

4. What improvements were on that block in the spring of '60 and '61, if any?

A. I think there were none in 1861.

5. Did you see some men at work on that block who claimed to be putting down a well? If so, state what you saw them do.

A. My impression is that it was in 1861—I would not swear positively to that; however, it was as early as that—that some
4652 parties came there and put a well down; well, I saw them put down the well; was with them the biggest part of the time; they drove it into the ground.

6. What was it that they drove into the ground?

A. An iron tube.

7. Did you see the lower end of the tube before they drove it? If so, describe it as near as you can.

A. Yes; I saw the tube; they had a plug in the lower end of the tube; after they drove the tube in the ground they had an iron rod that they put down in the tube and drove the plug out; then attached a pump to the tube, pumped the same, and got water by that means.

8. State whether there were any perforations on the sides of the tube above the plug.

A. Yes; there were; my impression now is there were slots cut in the tube on four (4) sides of it.

9. About how deep did they drive this tube?

A. My impression now is that it was about 16 feet that they drove it.

10. State whether they dug out any of the earth before they commenced driving it.

A. They did not.

11. What kind of a pump did they put on it?

A. Well, I could tell the pump if I see it; it was a common iron pump that was used them times; I don't know the name of it.

4653 12. State whether it was a long or a short pump, and whether it was open or closed at the top.

A. Well, I could not tell now whether it was open or closed at the top; it is too long ago. Oh, it was a short pump.

13. Did you pump water from it?

A. Yes, sir.

14. State, as near as you can, how long this well remained there after you saw it.

A. It was there the biggest part of that summer; I could not state how long.

15. On what part of the block was this well?

A. N. W. cor. of block 3.

16. Did you see many persons use this well during the time it remained there?

A. I saw persons use it; I would not know exactly how to answer that question. A well situated as that was I presume a good many would use it.

17. Was there anything around the well to keep people from it?

A. No, sir.

18. At the time this well was there were there any buildings on Stoughton and McClure's 2d add. to Independence on block 3?

4654 A. Not in the spring of the year; I think there were none.

19. Who put up the first building on that block, and when, and on what part of the block?

A. E. Ross built the first building on the block, and on the S. E. corner. My impression is that it was built in the fall of '61; am not positive about that.

20. Have you seen any other wells of a similar kind put down on that block since the one you have just described?

A. Yes.

21. When was the next well that you put down there?

A. Put down in the fall of '68 or spring of '69.

22. Whereabouts was that put in reference to the 1st one?

A. That was put down about 4 rods from the N. E. cor. on the north line.

Direct rests.

4655 Cross-examination:

X Int. 1. Were you present during the putting down of this last well you have referred to?

A. Yes, sir.

X 2. State who else was there and describe the manner in which the well was put down. Describe the tube point and pump as particularly as you can.

A. Elias Hovey, a man who put down the well, a man by the name of Crosby, Sam. Mackenzie, now dead. Well, he bored into the ground with some kind of an auger to put that down; then put a tube in. They had a point that they attached to the iron tube. That point had holes drilled in it, with a wire screen on it; used a common, ordinary iron pump. That was put in there at my request is the reason I know so much about it.

X 3. Was this tube forced or driven into the ground?

A. It was a combination of both, I think.

X 4. State all you know about its being driven or forced.

A. Well, they bored some distance—they might have bored the greater part of the way—and then drove it some.

X 5. State, as near as you can, how far this tube was driven and what was used in driving it.

4656 A. It was bored the biggest part of the way, and it was a wooden sledge that they used, I think. My impression is that they drove it about 4 or 5 feet.

X 6. Can you not state what year this last well was put in?

A. But whether it was in the fall of '68 or spring of '69 I can't state. The church was completed in the spring.

X 7. Please state who resided on that side of the river, near where you saw this first well made.

A. Well, myself, for one, Sanford Clark, S. S. Allen, Mr. Sourbeer.

X 8. Where did you reside? Give the location.

A. I lived on the S. W. cor. of block 2.

X 9. Where did Sanford Clark reside?

A. On block 8, N. W. cor.

X 10. Who resided on the N. E. cor. of block 7?

A. My impression is that a man by the name of Brown. I sold that place to him, but he might have moved away at that time.

X 11. How long did you reside on the S. W. cor. of block 2?

A. A little over 8 years.

X 12. During the time you lived there was there any other well of the kind you first described put on the N. W. cor. of block 3?

A. I think there was in '64 or '5. There was another well put down on that same block, somewhere further east than the one put down in 1861, pretty near the centre of the block; none on the N. W. cor.

4657 X 13. Did Mr. Deering live on the N. E. cor. of block 7 at the time this 1st well you have described was put down or during the time it remained there?

A. I think not; don't think he lived there until 1862.

X 14. Will you state positively that he did not live there at the time this 1st well was put down?

A. No.

X 15. Who put this first well down that you say was put down in 1861?

A. Can't recollect the name.

X 16. Describe the parties who had charge of the construction of this well, as near as you can, and state all you know about them.

A. Well, they were young men; one of them, I recollect, was a tall man; two of them was all that I saw; one I could not describe.

X 17. Did they claim to have a patent?

A. Don't recollect.

X 18. What was said by these men, if anything, at that time about this well and what they put it down for?

A. They claimed they had a new process of getting water by driving a tube into the ground.

X 19. What date did you move to where you lived at the
4658 time you say this well was put down?

A. May, 1860.

X 20. Where did these men who put this well down claim to live?

A. New York is my recollection.

X 21. Where in New York?

A. That I could not state.

X 22. Did you then know where they were stopping in this town?

A. It was what was called then White's Hotel; I think it was.

X 23. Did you know at the time they were here where they were stopping or do you make that statement from information since obtained?

A. I saw the parties at what I think was then called White's Hotel, now the Merchants'.

X 24. Were there two strangers or two men claiming to be from New York having control of this well project or was there only one?

A. There were two.

X 25. Did this first well or wells of that kind go into general use immediately after one was put down?

A. They did not; not to my knowledge.

X 26. There has been a good deal of excitement, has there not, on the driven-well question within the last year or two in this locality?

4659 A. There has.

X 27. There has been a good deal of discussion about this first well you have described and the date it was put down, has there not?

A. There has been some, but not a great deal.

X 28. Is there not an organization in this county having for its object the prohibit*at*ion of the collection of royalties on the "driven well" and defeating Green's patent?

A. I don't know anything of it of my own knowledge; don't belong to it.

X 29. Has there not been frequent meetings held in this town of what is generally known as such an organization, and have you not seen notices of such meetings in your public papers?

A. Don't know, only what I have heard on the street; might have seen it in the papers; don't remember.

X 30. You have frequently heard discussions on this subject, have you not?

A. Yes; I have heard it discussed in the store and on the streets.

4660 X 31. Who has talked with you in reference to your testifying in this case?

A. Well, I don't recollect now, except Col. Lake. He asked me what I knew about it.

X 32. Has the defendant, George Hovey, ever talked with you about this matter?

A. Well, yes; I have talked with him some; not a great deal.

X 33. What has he said to you about it, either the '61 well, as you call it, or Green's patent or the Hovey patent? State fully.

A. Well, I could not state the words; perhaps he has asked me about the '61 well; what I recollected about it.

X 34. You say "perhaps he did." Don't you know he did?

A. Yes; he has asked me what my recollection was, as to the time it was.

X 35. When did he ask you?

A. Well, it must have been in the winter of '78 and '9; could not state the exact time.

X 36. Have you had no conversation with him since that on the same subject?

A. I think not for the last year.

X 37. What did he say to you further at the time you say he asked you about the well?

A. I could not state what was said.

4661 X 38. Do you mean to be understood that that is all you can recollect of that conversation that took place in the winter of '78 and '9?

A. Yes, sir.

X 39. You sympathize with the opposition to the collection of royalties by the owners of the Green patent, do you not?

A. I don't know what you mean by the question. If you mean dollars and cents I could answer it very quick, as I did not pay anything.

X 40. Were you called upon by any one and asked to pay anything to aid in this opposition?

A. Yes, sir.

X 41. Who called on you?

A. Mr. Phillips.

X 42. What did he state to you at that time, or any other, to be the object for what he asked you to subscribe or pay? State the conversation as near as you can.

A. Well, he asked me in the first place to subscribe $5.00
4662 towards a test case in the drive well. I refused to do it.
There was very little conversation after that in regard to it.

X 43. When was this conversation?

A. The winter of '78 and '9 is my recollection.

X 44. Is this all you can recollect of that conversation?

A. It is all about the well.

X 45. Do you sympathize with the opposition in any manner? You say you don't in dollars and cents.

A. I don't think I do materially. I have no interest in it.

X 46. What business was you engaged in in 1860 and '61?

A. A house builder.

X 47. What was the date of the first train of cars that came into Independence over the Burlington road on the branch?

A. Can't give the date; can tell the year—1873.

X 48. Are you married?

A. Yes, sir.

X 49. Give the date of your marriage, please.

4663 A. The 18th day of December, 1855.

50. Who was representative from your county in 1861?

A. Could not tell, as we have not had many men there who are very notable.

X 51. You state in your direct examination that there were slots cut in the end of the pipe in the 1st well and holes drilled in it. State, if you please, about how large those holes were.

A. I did not state there were holes in the first one. The slots in the 1st well run up and down the tube about 18 inches or 20 and a quarter of an inch wide. These slots run clear through the pipe. There were no holes in the 1st pipe; that is my recollection.

X 52. Was there any screen or covering over these slots?

A. No, sir.

X 53. What kind of a plug was in the end of this pipe?

A. Wood.

X 54. Was there any tube or rod driven into the ground before this one with slots was put in?

4664 A. I think not.

X 55. Were you introduced at the time to the man or men that you say were here from New York and put that well down?

A. I saw them working there and went from my house down.

X 56. Did you at any time hear their names?

A. I presume I did, but I don't remember it.

X 57. Was Joseph Ingraham the name of one of them?

A. Could not state.

X 58. What arrangement did they have or preparation for driving this tube, and what did they drive it with?

A. They had a wood mallet or beetle and chain to pull it up with; I helped them to do it.

X 59. Did they have any scaffolding or arrangement to get up on to drive the tube?

A. They had some sawhorse or something of that kind to lay boards on.

X 60. You were there during the entire time they were making this well, were you, and observed particularly the tube, point, and pump?

4665 A. Well, I was there the biggest part of the day; took quite an interest in it, it being a novel way of getting water. Yes; I observed particularly the tube, point, and pump.

X 61. State anything that was said by either of these men that put the well down at that time.

A. All I remember is that they claimed that they could get water by driving a tube in the ground, which was entirely new to me.

X 62. You say you helped to pull this tube up; what was that for?

A. Yes; I could not tell what it was pulled up for; it was pulled up with a chain and lever.

X 63. Was it pulled clear out of the ground?

A. Yes, sir.

X 64. What did they do to it after it was pulled out?

A. Took it apart and put another piece on.

X 65. How are you able to — for the date of putting down of this well, by what data?

A. By the time I built the place that I built at that time and the time I moved there.

X 66. What date and month and year did you finish the building of your house, and who built it?

A. I finished it in the spring of '60 and moved in May, 1860; built it myself.

4666 X 67. What was your particular trade?

A. A carpenter.

X 68. Who plastered your house?

A. A man by the name of Fox; now dead.

X 69. How long after you bought your lot before you moved into your house?

A. Bought it Sept., '59.

X 70. When was the Presbyterian church built on that lot?

A. In 1868 the walls were built.

X 71. Did D. S. Deering move into the house that you say was on the N. E. cor. of block 7 when that well was put down or did he build a new house or addition to that one before he moved over there?

A. I don't know.

Cross rests.

Redirect:

R. D. Int. 1. Did Deering build an entirely new house before he moved over there, or is the old house there yet?

A. The old house stands there yet.

R. D. 2. Explain, then, what you mean by your answer to the last cross-interrogatory?

A. I don't know whether he built the addition before he moved or not.

4667 R. D. 3. Who kept the hotel then known as White's Hotel, now known as the Merchants' Hotel, at the time this first well was put down?

A. Tom Sherwood and Kimball, I think; am positive Sherwood, and I think Kimball.

(Signed) T. H. TYSON.

Subscribed in my presence and sworn to before me this 5th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4668 M. W. Trask, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is M. W. Trask; am 66 years of age; reside in Buchanan Co., Iowa; am a farmer.

2. Do you know Frank. S Trask; and, if so, what relation is he to you, if any?

A. Yes; he is my son.

3. Where did Frank S. Trask stay during the summer of 1861?

A. Independence, Iowa.

4. What time did he come here and who came with him, and from what place did he come from to Independence?

A. I should say about the 10th of May; I come with him from Jonesville, Wisconsin.

5. How long did you remain here after you come?

A. I should think less than a month; a very few days.

4669 6. Where did you go when you left here?

A. I went back to Jonesville, Wis.

7. When did Frank S. Trask return to Jonesville?

A. He returned the fall following. I can't give the date, but think it was about the 1st of Oct. It was time enough for them to commence school, tho'.

8. How long did he live in Jonesville after that to your knowledge?

A. Well, Frank was away part of one summer, that he started to go to California. I think he was there two winters, that he wintered with me. I don't know but he did three; I won't be sure.

Direct rests.

Cross-examination:

X Int. 1. What did you come to Independence for May 10th, 1861?

A. Come out to see my brother and see the country.

X 2. Where did your brother reside? How do you fix that date; from what data?

A. It was the first year of the war, and, another thing, I
4670 sold my livery out at that time.

X 3. Who did you sell out to?

A. Isaac Horrald.

X 4. What business did you engage in on your return?

A. That summer, I guess, I did not do anything; the next business I did was to buy horses for the Government; I then went into the livery business again.

X 5. How old was Frank when he was here?

A. I think Frank was 13 years old; he was born in '47.

(Signed) M. W. TRASK.

Subscribed in my presence and sworn to before me this 5th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4671 B. C. Hale, being produced, sworn, and examined on the part of the defense, deposed as follows:

1. What is your name, age, residence, and occupation?

A. My name is B. C. Hale; am 55 years of age; reside in Buchanan Co., Iowa; am a solicitor.

2. How long have you resided in Buchanan Co., Iowa?

A. Since Christmas, 1851.

3. Have you had any official position since you lived in this county; if so, what and when?

A. I was sheriff in '60 and '61.

4. Did you go into the military service of the Government during the late war, '61–'65?

A. I did.

5. What company and regiment?

A. Company "C," 27 Iowa Volunteer Infantry.

6. When and where did you enlist?

A. I enlisted the 15th of August, 1862, at Independence, Iowa.

4672 7. Where did you reside in 1860 and '61?

A. In the city of Independence, Iowa.

8. Do you know of any companies being raised in Independence before the one you went into? If so, state what ones.

A. There was a company in '61 that went into the 5th, Capt. Lee's. I think that was in the months of July or August—midsummer—and one company, "C," 9th Iowa, a little after the other one went out. I don't know whether that was in '61 or '62.

9. Was anything done by the citizens of Independence to prepare Capt. Lee's Co. to go into the service? If so, what?

A. There was. We made part of a suit of clothes for each soldier—pants and, I think, shirt—kind of a uniform.

10. Did you ever hear of a drive well?

A. Yes.

11. State where you first heard of such a well.

A. Here in the city of Independence, Iowa.

12. Did you see this well?

A. I did.

4673 13. State where it was located, giving the description as near as you can.

A. It was in the street, or close to the street, near the Presbyterian church, in the city of Independence, on the west side of the river.

14. Was the Presbyterian church there at the time you saw this well?

A. It was not.

15. On which side of the street was the well?

A. On the south side of Main St., and it seems to me on the west side of the other street; don't know the name of the street; am not positive which side of the street.

16. Describe the well as it looked when you first saw it.

A. It looked like a pump set on a board; a pump set on a platform; an iron pump was all I could see.

17. How high was the pump from the ground?

A. To my recollection there was a platform of boards, small—just apparently enough to keep the thing from tipping over.

18. State whether there was any pipe below the pump going into ground.

A. I could see nothing; I know it fetched water. I could
4674 not tell what went into the ground by sight.

19. Was there any appearance of the earth having been dug up there; if so, what was it?

A. Nothing indicated any removing of earth.

20. Did you use the pump to pump water from?

A. I just pumped for the curiosity of the thing; I might have watered my horse there during the summer; maybe I did, but I did not practice it.

21. Did you see others pump water from it?

A. I did; frequently.

22. About how long did the well remain there in that way?

A. I don't know; it would be indefinite for me to say. It was taken up that summer a month or so; it might not be half that long; it might be more.

23. The first time you saw this well was the ground wet around it, as tho' much water had been pumped out?

A. Yes; it was real wet; the water stood in little puddles in horse tracks on the lower side of it.

4675 24. Might not these boards that you saw have been layed there to stand on while pumping?

A. They might. I don't know what they were there for, anyway.

25. About how many boards were they?

A. My first impression would be that it was just one short wide board. There might have been a couple of narrow ones.

26. What kind of a pump was this?

A. An iron pump.

27. About how tall was the pump?

A. Oh, about a little over three feet, I guess.

28. What year was it you saw this pump and well?

A. In 1861.

29. By what data do you fix it that it was in 1861.

A. By my office as sheriff and Capt. Lee's company leaving for the service.

30. When was the well there, with reference to the time that Capt. Lee's Co. was getting ready for the service?

4676 A. It was that summer before they went away; the fore part — that summer.

31. Do you remember whether the well was there when they went away?

A. It seems to me that it was not there when they went away. That is my recollection; still it might have been.

32. Where did you live in Buchanan Co. before you come to Independence?

A. In Littleton.

33. Was you acquainted with Geo. Hovey in 1861?

A. I was.

34. Do you remember of seeing Mr. Hovey at that well while it was there?

A. I did not. If I did I don't recollect of seeing him there; am pretty positive I did not.

35. What was said when you first saw it, about how the well was made?

A. The report was it was an iron tube driven into the ground until (it) reached water in gravel.

4677 36. What was the appearance of the well, as to how it was made?

A. It looked just like a pump right on the ground; there was nothing that indicated digging, like a well.

Direct rests.

Cross-examination:

X Int. 1. Mr. Hale, you said something about a report that that was an iron tube driven into the ground until it reached water in gravel. Please state who you heard say anything about this, and state what was said.

A. It was the report or talk among the citizens here; no, I could not identify any particular person with whom I had any conversation in regard to it.

X 2. Have you not had a good deal of talk about this well during the last year or two?

A. Not to exceed twice.

X 3. Who have you talked with? And state fully each conversation.

4678 A. Col. Lake asked me if I recollected that well—when and by whom it was put down. I answered, as far as time and date of putting it down; did not know the parties that put it down; neither did I see them put it down; the second conversation would be about the same.

X 4. There has been a good deal of talk within the last two or three years on the "driven-well" question and a good deal of excitement caused by the attempt to collect royalties on the driven well, has there not?

A. There has been considerable feeling and a good deal of talk.

X 5. Have you been called upon to join an organization to oppose the collection of these royalties or to contribute funds for that purpose?

A. I have not, in no way nor form.

X 6. Who came with you when you come to Independence to live the last time, and when was it?

A. I came the 26th of Dec., 1859, with my wife and adopted daughter.

X 7. You stated that this well seemed to be on a platform and that it seemed to be a short board or two—small boards. Did the pump set on or about the centre of this board or these boards?

4679 A. I do not know whether it set on them or not; am not positive. I stood on a board when I pumped so as not to get my boots muddy. It seemed about 3 foot long and a foot or more wide; either one or two boards.

X 8. It was a good while ago and your recollection is not very distinct about the matter, is it?

A. It is not distinct about the platform.

X 9. You say in your direct examination that you did not charge your mind with the time one of these companies left. Were you particularly interested in the well, and did you charge your mind with that and the particulars concerning it so that you could testify positively in regard to it?

A. I charged my mind particularly with the well from its novelty to me.

X 10. Did wells of this kind go into general use in this locality immediately after this one was made?

A. I could not answer; I went away into the service.

X 11. Were the streets laid out on the west side of the river so that you could designate them at the time this well was put down?

4680 A. They were.

X 12. What way were they marked or laid out so that you could at the time tell the lines of Main St. and the cross-streets at where this well was said to be put down?

A. Tell it by the buildings on the streets.

X 13. What buildings were there on this street on the west end of the block on which the well was that you have located by which you determined the line of the street?

A. I determined the location of that street by a building on the north side of Main St., and used, I think, as a blacksmith shop, and on the south side and east of the street by a residence, a dwelling, of some one; I don't know whose.

X 14. Did this blacksmith shop come up to the east line of the street running north and south by the well?

A. It did or near to it on the cor. of Main and that street. It was a brick, I believe; that is my recollection of it at present.

X 15. Where was this other residence that you have named?

4681 A .It was on the east of the street running north and south; a little further away from the street.

X 16. What year was the Presbyterian church built?

A. I do not know; I was not a resident of this town when it was built.

X 17. Were you informed that there was a patent on this well?

A. I was not; after I come home from the army, in 1865, I was informed there was a patent.

X 18. Who was the capt. of your company that you went out in?

A. Capt. Noble.

X 19. When did your time cease as acting sheriff?

A. It expired with the year 1861.

X 20. What did you do after ceasing acting as sheriff?

A. Clerked in a book store until I enlisted, in Waggoner's store—of Galena, Ill.; they had a branch store here; he was my employer.

X 21. What part of Buchanan Co. do you reside in?

A. I reside now in Quasqueton.

Q. 22. Have you attended the meetings held in the interest of the opponents of the driven well?

A. Emphatically, no.

X 23. Did you examine, at the time you first saw this pump or well, to see whether the tube was inserted tightly in the ground or whether it was loose and supported on this platform that you

4682 mention?

A. I did not examine it.

Cross-examination rests.

Redirect:

Int. 1. You say in your cross-examination that there was a blacksmith shop on the north side of Main St. opposite this well at the time this well was there. Are you sure that that building was occupied as a blacksmith shop at the time this well was there?

A. I am not, as in my first answer I was not positive.

2. Are you sure it was a brick building?

A. I am not.

3. When you returned from the army, in 1865, did you hear that there was a patent on this well that you say was put down in 1861?

A. Not that particular well; it was a patent on drive wells—about that time.

(Signed) B. C. HALE.

Subscribed in my presence and sworn to before me this 5th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4683 George A. Williams, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name in Geo. A. Williams; am 33 years old; reside in Independence, Buchanan Co., Iowa; am a grocer.

2. Do you know A. F. Williams; and, if so, what relation is he to you?

A. He is my father.

3. Do you know where your father lived in 1861? If so, state.

A. Yes, sir; he lived on the west side of the river, in the south part of the town, in Independence, Iowa.

4. How long did he live there?

A. Well I don't know whether he lived there a year and a half; I know he went to Michigan in the fall of 1861.

4684 5. What time in the fall of 1861 did he go to Michigan?

A. It was in Oct. or Nov.; think it was in Nov.; won't be certain.

6. How long did he live in Michigan after the fall of '61?

A. Four years; it might have lacked a few days.

7. Where did he go from Michigan?

A. Come back to Independence, Iowa.

7½. When your father moved to Michigan in 1861 did you go with him?

A. Yes, sir; I went with him.

8. Did you live with him during the time he lived in Michigan?

A. Yes, sir; I did.

9. Did you live with him when he lived in Independence in 1861?

A. Yes, sir.

Direct rests.

Cross-examination:

Int. 10. How do you fix the date of your father living on the other side of the river in 1861?

A. Because we moved from there to Michigan in '61 and got back in 1865.

(Signed) GEORGE A. WILLIAMS.

4685 J. E. TREXLER, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is J. E. Trexler; am 59 years of age; reside in Black Hawk Co., Iowa; am a paper-hanger and white-washer.

2. Did you ever reside in Buchanan Co.? And, if so, state where and how long.

A. Well, sir, I came to Independence, in Buchanan Co., Iowa, in the spring of '57 and stayed here one year, and then I moved back to Reading, Pennsylvania, again; stayed there about a year and a half; then I moved back to Buchanan Co. again; then I lived here till the spring of '66; then I moved to Waterloo, where I live now.

3. What year and what time in the year was it that you came to Independence the second time?

A. Well, sir, it was in the fall of the year; yes, in the fall of '59.

4. Whereabouts in Independence did you live from that time?

4686 A. I lived just one block from here; I lived on the west side of the river, on the north side of Main St., the second block from the river.

5. During the time you lived there were there any companies organized to go to the war?

A. Yes, sir.

6. State who raised the company and what year they were raised.

A. Capt. Lee raised the company; think it was in the month of June; think it was in 1861.

7. While you lived there did you know the block of land on which the Presbyterian church now stands?

A. Yes; I knew the block of land, but did not know the owner of it.

8. Did you at any time see some men doing work on that block of land that attracted your attention?

A. Yes, sir; I did.

9. State what you saw them do there.

A. Well, sir, I saw them driving a "drive well"—a pipe, such as they use for drive wells.

10. What did they drive it with?

4687 A. I think they drove it with a sledge; it was a heavy instrument of some kind; I took it to be a sledge.

11. About how long was the pipe you saw them driving down?

A. Well, I suppose it to have been about 16 feet; I judge it to have been that just with an eye measure.

12. State whether they had anything to stand on to drive it; and, if so, what.

A. A couple of wooden horses.

13. About how high were these horses?

A. They might have been—I did not measure—about 3 or 4 feet high.

14. From the top of these horses could they reach the top of this 16-foot pipe? If not, state how they managed it.

A. Well, they had two sections of pipe; each section might have been about 8 feet; well, they had the two horses with a plank across, and the first section they drove it in by stamping it down as far as they could without driving it, and then they got on their horses and drove it down with a sledge—put a cap on their pipe first, and then they drove that down as far as they could, and then they
4688 put on the other section and drove that down; then they attached the pipe to it and pumped water out of it.

15. Explain what you mean by saying that they drove this down by stamping it as far as they could.

A. By taking it in their hands and raising it up and down.

16. How long did the well remain there?

A. Well, then, that well might have remained there 3 or 4 months; it was there some time.

17. On which side of Main St. was this well?

A. On the south side of Main St.

18. State whether many persons used it while it was there.

A. Yes, sir; there was quite a good many come there to get a drink; it seemed to be quite a curiosity at the time.

19. What buildings were on this block when you saw the well?

A. There were no buildings on the block at the time; it was mear-ly an open commons.

20. What year was it that the well was made there and what time of the year?

A. It was in the year 1861 and some time in the forepart of May.

Direct ex. rests.

4689 Cross-examination:

X Int. 1. Were you pretty generally acquainted in Independence at the time that well was put down that you described?

A. Well, yes; I was middling for the short time I was here.

X 2. What business was you engaged in at that time?

A. I was in the restaurant business.

X. 3. What do you mean by restaurant business?

A. An eating house to lunch in.

X 4. Where was your place of business?

A. On the east side of the river.

X 5. Were you present before or at the time they commenced to drive this tube?

A. I was not on the same lot, right across the street.

X 6. Did you go over there?

A. No, sir; I did not go over.

X 7. You was across what street?

A. Right across Main St.; the well was drove in pretty near opposite from where the house where I live.

X 8. What block did you live on, and how near to the S. W. cor. of the block?

A. I can't tell you the number of the block now; it was on part of the 2d lot; — own part of the 1st lot on the S. W. cor. of the block; I bought the S. W. cor. lot and the one next to it.

4690 X 9. Were there any other improvements on these lots you bought at that time?

A. There was nothing but an old log house and the well on them when I bought them; I bought them in the spring of 1857.

X 11. What was the old log house used for?

A. Well, it was used for a tenantment; I moved into it myself.

X 12. Was there any other buildings on that block that you lived on at the time you saw this well?

A. Yes, sir; I built one myself and I sold 40 feet to Gifford, and then there was one right adjoining mine on the east side, and then there was another house on the 3d lot east of my house.

X 13. Who lived in the house next to you when you saw the well?

A. Mr. Gifford lived in the first; Dr. Taber, I think, lived in the 2d at the time.

X 14. During the spring or summer of 1861 was there any blacksmith shop on that block?

A. No; there was no blacksmith shop there at that time.

X 15. Did you go over to where they were driving this well at the time?

A. No, sir; I did not.

4691 X 16. Who made that well?

A. That I could not tell—who the persons were that put the well in; they were strangers to me.

X 17. Have you not heard, within the last year or two, this well talked about considerable, and have you not heard the way in which it was made discussed fully—as to how it was driven, the kind of pipe or tube, the point, and the pump?

A. No, sir.

X 18. Has no one talked with you within the last year or two about you testifying as to this well?

A. No, sir; nothing in regard to testifying.

X 19. Am I to understand you to state that no one has said anything to you about this well?

A. Well, I have heard them talk some about this well when this well question come up. I made some remarks in regard to this well that I had seen put in.

X 20. Describe this pipe that you saw driven.

A. Well, I took it to be an iron pipe. They tied a point on the bottom of it; I could see that.

X 21. Was there any holes in the point or end of the pipe?

4692 A. As near as I could see it across the street there were holes in it; I am certain there must be holes in it.

X 22. There has been a good deal of excitement on this driven-well question the last year, has there not?

A. Well, I don't know of any, only for about the last 6 months; I had not heard of any before.

X 23. Do you know anything about meetings being held to oppose the collection of royalties?

A. Yes, sir.

X 24. Have you attended any of these?

A. No, sir.

X 25. How many companies were raised here during the war?

A. Well, I don't really know. I suppose there might have been three or four. I could not tell as to the exact number.

X 26. How is it you know so much about this Capt. Lee's Co.?

A. Well, it was the first company that was raised, and it seemed like a kind of a curiosity to see soldiers getting here for the war.

X 27. Did you not observe the other companies as much as you did this one, and is it not a fact that as the magnitude of the war became known the interest increased all over the country?

4693 A. Well, I don't know but it did in some respects; I don't think I did observe the other companies as much, because the first excitement was the most; the thing became an old thing.

X 28. Now, tell how you locate that well there in 1861.

A. Well, in 1861, on the 1st of June, I moved over on the other side of the river—on the east side. I moved out of the house about the 1st of June; it was just before this Co. organized—of Capt. Lee's, and because I see the soldiers there getting water—getting a drink.

X 29. Were there not soldiers about that locality freely in 1862?

A. Not that I knew, in that locality.

X 30. Were there no companies raised in 1862 in Independence?

A. Yes; I think there was.

X 31. And how do you know that they did not congregate freely in that locality?

A. Well, I don't know as there was anything to draw their attention there.

X 32. Was there not the same ground there for them to drill on?

4694 A. Well, I don't know but there might have been good grounds for them to drill on; I did not live there at that time; I did not see them there.

X 33. Who talked with you about what you would swear to in this case?

A. No one.

X 34. No one to-day or to-night?

A. No.

X 35. Did you ever have a driven well?

A. Yes, sir.

X 36. Are you a member of any organization?

A. No, sir.

X 37. You sympathize with the opposition to the collection of these royalties?

A. Well, I do, to some extent.

X 38. Then you have volunteered your testimony in this case, have you, and offered it without any one conferring with you on the subject?

A. No, sir; I can't say that I have.

X 39. Please explain.

A. I don't know how to explain; I let it be known about this well here when I heard they were collecting royalties round the country; I thought it strange for them to be collecting royalties on a thing that had been in existance so long; I let out in re-
4695 gard to this well here, and the first thing I knew they were after me.

X 40. Who was after you?

A. Well, in the 1st place a man by the name of Thompson was after me, and then Mr. Lake here.

X 41. What did Mr. Thompson say to you?

A. Mr. Thompson was at my house. I was not at home and I did not see him, and then Mr. Lake came after me.

X 42. What word did Mr. Thompson leave at your house?

A. Why, he left word that he wanted to see me in regard to the drive well, and for me to come around to his store.

X 43. When did the second company leave here that went to the war?

A. That I could not tell you—when the 2d and 3rd company went.

X 44. Was you served with a subpœna to come here and testify?

A. No, sir.

X 45. Why did you come?

A. Well, I come because I was requested to come and give what I know about it.

4696 X 46. Who requested you to come and how did you get the word?

A. Well, Mr. Lake dropped me a line.

X 47. How long did you keep a restaurant on the east side of the river?

A. Till in the spring of '64.

X 48. You did not come over on the west side in 1862?

A. I came over occasionally.

X 49. Was that well put down before D. S. Deering moved onto the block where he now lives, or after?

A. That I could not tell positive.

X 50. Did you ever see him, or any of his family, at that well getting water?

A. I can't say.

X 51. Do you see T. H. Tyson either at the time the well was put down or after?

A. That I could not say.

X 52. You could see the workmen putting it in, could you? You were near enough to distinguish them, if you knew them?

A. Yes, sir.

X 53. And you now swear that you did not know anybody that was around the well at work?

A. No, sir; I did not know any one.

X 54. And you do swear that you could see a small cap
4697 put onto the top of the pipe to drive it?

A. Yes, sir; they put on something; I supposed it was a kind of a cap.

X 55. And you are sure they drove it with an iron sledge?

A. Yes, sir.

X 56. Can you give the names of anybody you ever saw getting water at that well outside your own family?

A. I can't name anybody; I have no doubt I knew them, but I can't name them now.

X 57. Did you get a well made right away after seeing this one?

A. No, sir; I had a dug well in my yard.

X 58. Did this well go into general use in this locality within a year or two after this one was put down?

A. None as I know.

Redirect:

Int. 1. You stated in your cross-examination that the house on the S. W. cor. of the block you lived in was a log house. Now state whether the logs were covered over in any way on the outside; and, if so, how.

A. They were covered over with siding.

4698 Question 2 missed.

R. D. 3. What kind of a pump was it on this well tube?

A. Some called it a pitcher pump or cistern pump; you know what I mean.

R. D. 4. Was there any platform under this pump or any boards there?

A. No, sir; there was no platform, but there was boards lying round the pump.

R. D. 5. Was there more excitement or interest when Capt. Lee raised his company than when the other companies were raised here?

A. Yes; I think there was, as far as I am aware of.

R. D. 6. After you moved out of the house in '61 how long before you moved back there again?

A. I did not move back into the house again.

R. D. 7. Have you never lived in that house since 1861?

A. No, sir.

R. D. 8. When these men were putting down that well did any person come and stand round there looking on, that you remember of?

A. Well, yes; they were passing back and forward.

Redirect —.
Recross waived.
(Signed) J. E. TREXLER.

4699 Subscribed in my presence and sworn to before me this 5 day of M'ch, A. D. 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

(Endorsed:) Filed Oct. 20, 1880. E. R. Mason, clerk.

4700 Monday, March the 8th—. The counsel for complainants not appearing on the day of adjournment, the further hearing of testimony stood adjourned until this evening, Tuesday, the 9th day of March, 1880, at 7 o'clock p. m.

ELIAS S. HOVY, being produced, sworn, and examined on the part of defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is Elias S. Hovy; am 56 years of age; reside at Swanton, Butler Co., Iowa; am a farmer.

2. Where did you reside before you moved to Butler Co., Iowa?

A. The last place was Independence, Buchanan Co., Iowa.

3. How long did you reside in Buchanan Co., Iowa?

A. About 20 years.

4. What business were you engaged in the latter part of your residence there, and how long were you engaged in that business?

A. The iron well business; I think 8 or 9 years.

5. In how many different counties in Iowa have you made iron wells?

A. I could not tell.

4701 6. Give the names of the different counties in which you made them, so far as you remember them now.

A. Buchanan, Black Hawk, Butler, Bremer, Fayette, Benton, Fama; I think Johnson, Jones, Muscatine, Louisa; that is all I think of; we made some in Linn.

7. How deep have you ever made one of these wells?

A. Well, 35 or 40 feet.

8. In what kind of soil do you find water in making these?

A. Quicksand and gravel.

9. Do you not sometimes find water in clay where you can make a well with an iron tube?

A. We have sometimes bored through clay, but never made a well in clay.

10. What kind of a tube have you used in making these wells and especially describe the lower end of the tubes?

A. We have used an iron pipe, called gas pipe, with a screen on the lower end, usually covered with brass wire cloth.

11. How is this screen on the lower end made?

A. The ones we used usually were drilled with $\frac{7}{8}$ to 1 inch holes, one hundred or more in number, about 2 feet long, covered with a brass wire cloth.

12. Why did you cover them with a brass wire cloth?

4702 A. Because we found coarser material would let through the sand and fill our pumps.

13. What part of the pump would be filled with sand?

A. The cylender or suction barrel.

14. What effect would that have on the pumping of water?

A. It would usually let the water run back out of the pump, so that we would have to prime it by starting the water repeatedly; it would fill that barrel full of sand, so that we could not pump at all.

15. Why could you not pump a well with the cylender full of sand as you could with sand in the tube below the cylender?

A. Where there is but a little sand comes through, and that fine, the current of water would lift it to the cylender, but not from the cylender out.

16. Can you explain why sand in the cylender interfered with the working of the pump? If so, explain it.

A. Well, it would often fill the cylender full so that you could not work the handle.

17. Well, what benefit was this screen over the hole drilled in the pipe?

A. It kept the sand back from getting into the pipe.

18. Could not the sand come up in the lower end pipe as well as in these holes?

4703 A. We always plug-ed the lower end of the pipe tight.

19. If the lower end had not been plug-ed what would have been the result?

A. If over 15 or 20 feet, the pipe would fill full of sand, so that we could not get any water.

20. Have you seen the drawings and specifications attached to the patent on which this suit was brought?

A. I have.

21. What kind of a pipe is represented as being used in that patent?

A. A pipe with the lower end opened and holes in the sides; I am not positive as to the holes in the sides.

22. State whether, from your experience in making wells in Iowa, a well made by using a pipe with an open end and holes in the sides a ½ inch in diameter would operate as a well in any of the places where you have made wells in Iowa; and, if not, why not. State fully.

4704 A. They could not be made, as the sand would continue to come if less than 10 feet to the water; if more than 15 or 20 feet the pipe would fill full, and you could get neither water nor sand up.

23. If the well was between 10 and 15 feet what would be the result?

A. Sometimes we would get some water and sand and sometimes we would not.

24. State whether or not the brass wire cloth of which you speak of in all cases kept out the sand.

A. I don't remember any place in Iowa but that it did.

25. Does it ever wear out and get holes in it?

A. Quite often torn putting them down.

26. State what are the results that follow when they are torn.

A. The sand gets in and makes our pump work hard.

27. Have you ever been called on to repair these wells after they have been down some years?

A. Yes, sir; quite often.

28. Have you ever found them with holes in the screen, and, if so, what has been the result when there was holes in the brass wire cloth?

4705 A. Have found them with holes — consequence some *once* gravel. The sand would come so as to bother the cloth *one* choke them up.

29. Have you ever examined the specifications and drawings in the original patent issued to Nelson W. Green, dated January 14, 1868, and known as 73425?

A. I don't know as I have.

30. Have you ever examined a copy of the specifications and drawings attached to that patent?

A. Yes, sir.

31. State whether there is any ambiguous terms or any complicated devices mentioned in the same that required an explanation by a reissue.

A. Well, I think any man who is used to business could make a well like it, or try to. There are no ambiguous terms or complicated devices described in it.

32. In case the soil in which the water was found was very coarse gravel, what is your opinion in regard to a well made in that
4706 way working as a well?

A. I should think it might.

33. Then, if the soil was the proper kind, could a person by examining the specifications to that patent, No. 73425, make a well of that kind if he had had some skill in the business of well making?

A. I think he could.

34. Did you ever hear of such a thing as a drive well?

A. Oh, I think I have.

35. Where did you reside when you first heard of a drive well?

A. In Perry t'p, Buchanan Co., Iowa.

36. Did you go to see the well? And, if so, state where you found it.

A. I did go to see it and found it in Independence, Buchanan Co., Iowa, on the west side of the river near Main street; on the south side of Main street.

37. Describe what you saw there of this well.

4707 A. I saw what is called a pitcher or cistern pump screwed onto the top of an iron pipe. I got out of the wagon, went to it, pumped water, and drank out of it.

38. State what was on the outside of the pipe.

A. I don't remember anything above the ground.

39. State whether there was any hole round the pipe and down into the ground.

A. I did not notice any.

40. How was the appearance in regard to any earth having been excavated there?

A. Did not look as though there had been, except some sand apparently pumped up with the water.

41. How many times did you see this well?

A. Don't remember particularly but twice.

42. How far apart were those times?

A. Perhaps a month.

43. How close was the earth up to the pipe in what this pipe was fastened?

A. I think it was tight or close to it.

44. How did the pipe appear to have been put into the ground?

A. Forced in in some manner simply.

45. What was there to hold up the pump, except the pipe onto which it was fastened?

A. Don't remember as anything.

46. Did you see other persons use this well; if so, how many?

A. I did. About 4 or 5 the first time; myself and one more the 2d time. I was there alone.

4708 47. How far was this from Main street as traveled then?

A. I should say from 10 to 15 feet from the track.

48. State whether there was much travel on that street at that time.

A. There was a good deal.

49. State whether there was anything between the street and this well to prevent it to be seen by those passing; and, if so, what.

A. I think there was nothing.

50. What year and what time in the year was it that you saw this the first time?

A. In 1861; the early part; well, I should think it was May; it might have been June.

50½. What year and time of the year was it that you saw it the 2d time?

A. It was in 1861. It was in June or July, I think.

51. What circumstances attended it that makes you think it was in 1861?

A. I know it was whilst the soldiers of the 1st company raised in this town were here, and one of the soldiers went with me to drink of the water.

Adjourned until March 10, at 8.30 a. m.

4709 MARCH 10—8.30 a. m.

Met pursuant to adjournment.

All parties present.

53. State any other circumstances or facts by which you fix the date of this well.

A. Well, I was down here to church; it was announced that Elder Fulton was to address the soldiers; I stopped to hear the address; a young man by the name of Furcht, a soldier, asked me to smoke a cigar with him, as it was, perhaps, the last time I should ever see him. After we got through smoking he wanted to know where we could get a good drink of water. I told him that we would go to this iron well to get a drink, as it was on our way to hear the speech.

54. State whether you went with him to get a drink of water.

A. We did, and got it.

55. State whether or not you got it from the well described.

A. We did.

56. Do you know in what company and regiment this man Furcht enlisted? If so, state.

A. I don't know the company; it was in the 5th regiment of infantry.

4710 57. Have you examined a copy of the specifications attached to the patent, reissue 4372, issued to Nelson W. Green, dated May 9, 1871?

A. I have.

58. Are there any matters in regard to making this tube or drive well that are not in the specifications of the original patent 73425, dated Jan'y 14th, 1868? If so, state what they are.

A. I think there is. He claims, I think, in the reissue that in certain soils it is not necessary to drive his instrument for making the hole, as the tube itself can be driven.

59. Do you know of wells having been made by driving the tube itself without first driving a rod? If so, state when you first knew of their being made in that way.

A. I have; it was in '66, I think.

60. Where did you know of a well being made by driving the tube without the rod in 1866?

A. On the farm of Elias Parker, west of town, here in Perry t'p, Buchanan Co., Iowa.

61. Between that time and May, 1871, do you know of wells being made by driving the tube without the rod? And, if so, state where and how many you know of being made.

A. None that I know of.

4711 62. Do you know the defendant in this action, George Hovy?

A. I do; he is a brother of mine.

63. Do you know with whom he first commenced making these iron tube wells?

A. He commenced with me.

64. In what year?

A. I think it was in the fall of '70.

65. How long did you and he work together?

A. About 14 or 15 months.

66. Was you with him most of that time in the making of these wells?

A. Well, I travelled with a separate team taking orders and he worked with the hired men; it was seldom that I helped make the wells.

67. State how he made the wells, as far as you saw them made; describe the process fully.

A. We had a wood auger welded onto a piece of gas pipe about ¾-inch in size, cut into pieces about 4 feet, with couplings, so that we could attach one piece to another as we bored down to, and usually from 3 to 4 feet into, the water to loosen up the sand so that we could insert our coarse screen into the water; then we attached a pitcher pump to the tubing, pumping water, dirt, and sand, cleaning out the finer material from the coarser material, and then we withdrew that, put in a screen covered with fine brass wire cloth,

putting a plug in the lower end tight, then we put that down
4712 into the water, pumping out then the muddy water and some
very fine sand, then attach an anti-freezing pump, which completed our well.

68. What was the size of the auger and of what material was it made?

A. We used 2 inch, 2½ inch, and, I believe, 3 inch at different times; I suppose they were made of iron and steel.

69. What size tubing did you use in making these wells?

A. Inch and a quarter and inch and a half.

70. When you had finished a well state whether or not the earth was packed close around the outside of the tube.

A. It was not, usually.

71. How much space was there between the earth and the tube?

A. From ½ inch to an inch; sometimes 2 inches.

72. Did you at any time assist in making experiments in the earth to see what the difference was between driving the tube down into the ground and using an open-ended tube and by boring down into the water and using a tube in the bottom and screen over the holes? If so, state when and where you made the experiments and describe particularly what was done; state fully.

A. I did, in the month of April, 1879, in Independence, Buchanan
Co., Iowa; on the west side of the river, near Main street, near
4713 where this well in 1861 was put down; we attached a pump
to the one put down with an open lower end; we could get no water at all; several of us tried hard to get it; then we attached the pump to the one bored down with a fine screen attached to the lower end and we got a fair stream of water.

73. Did you make any other experiments there? If so, go on; describe fully.

A. Well, we bored down in another place, run down our coarse screen, pumped out the fine dirt, inserted another screen like the one before described, with the wire gauze on it and a plug in the lower end, and we got a full flow of water; then we bored down with an 8 or 10 inch auger, then run down our coarse screen—the one we pumped dirt through—pumped out the dirt, and made another well like the one made with the 2½-inch auger, such as we commonly used, and we got a stream of water substantially the same as in the case last mentioned.

74. Did you at that time and place make any experiment by tamping the earth around the tube at the top of the pipe? If so, state what you did and give the results; state fully.

A. We did; I am positive we — and we found no different result
than we did from packing than we did without packing.

4714 75. In interrogatory- Nos. 60 and 61 you was asked if you
knew of any wells being made by *a* driving a tube into the ground without first driving a rod to make the hole, between 1866 and 1871? Your answer was, "None that I know of." Now, state *if* whether you remember or know of any wells being made by driving a tube into the ground without driving a rod to make the hole, between 1866 and 1871.

A. I did.

76. State about how many wells you remember of being put down between 1866 and 1871 in that way; state as nearly as you now remember.

A. Several hundred.

77. Explain why you made the answer to interrogatory 61 that you —?

A. I understood it from 1866 back to 1861; that is the way I understood the question.

Direct rests.

Cross-examination:

X Int. 1. When did you first see a pitcher pump—that you recollect of distinctly?

A. Oh, I should think I was ten or twelve years old.

4715 X 2. Will you swear positively that you saw a pitcher pump, such as is now in common use, as much as 20 years ago?

A. I will not.

By consent of parties, O. M. Gillett, Esq., takes the place of the commissioner to record the testimony.

F. JENNINGS,
Commissioner.

X 3. Give the date, as near as you can, when you first saw what is known as a pitcher pump?

A. I think '64, '5, or '6.

X 4. Is it not true that they did not commence to manufacture pitcher pumps with a screw cut on *on* the lower end suitable for attaching such pipes as you use in making tube wells until between 1863 or 1865, and that were suitable for using on tube wells?

A. I do not know when they commenced; I think I saw one in 1861.

X 5. Will you swear positively that you saw a pump known as a pitcher pump, with a screw made on the lower end suitable for attaching gas pipe, in 1861?

A. I will not swear positively.

X 6. Will you swear positively that you saw what is known as a pitcher pump in 1861?

4716 A. I will not swear positively, but I think I did.

X 7. Is it not true that when you were manufacturing these wells that you knew of but one firm in the United States that manufactured pitcher pumps suitable for drive wells?

A. I know that when we commenced making the iron wells we found several different patterns of pitcher pumps in use; some of them had the appearance of having been in use several years.

X 8. The 7th interrogation is repeated and witness requested to answer.

A. No, sir; I did not know any such thing. There was more than one.

X 9. Did you not tell me a few moments ago that there was but one firm in the U. S. at the time you were manufacturing wells of whom you could get pitcher pumps suitable for the business?

A. I did say that there was but one firm that I knew of that made a pitcher pump that we could use successfully, meaning in pumping sand or dirt in connection with the first screen we used
4717 in making the well.

X 10. What firm was this that you refer to?

A. Cowan & Co.

X 11. What other firm did you know that was manufacturing pitcher pumps in the U. S. when you first commenced the business?

A. There were several different styles of pumps that we found in use on these wells manufactured by different parties, but I do not remember their names.

X 12. What newspaper was published in Independence at the time you say you saw this first well?

A. I could not tell the name of it.

X 13. Did you take one published in Independence?

A. I could not say whether I did or not.

X 14. Did you see any account of this well in any newspaper published at or about that time?

A. I don't think I did.

X 15. Did it excite a great deal of curiosity, interest, and discussion?

4718 A. I think it did.

X 16. Who was that soldier that you went to the well with to get some water and smoked a cigar with for the last time?

A. His name was Furcht. I do not know his given name. I think he lived in Fairbanks t'w'p, Buchanan Co., Iowa. I have never seen him since that day. I was acquainted with him a short time before.

X 17. What day of the week did you say this was?

A. On Sunday.

X 18. Did you know anything as to how this well was constructed?

A. I did not.

X 19. What month in the year was this?

A. I think in June or July.

X 20. Whose company was this young man going in?

A. I do not remember the captain's name. It was the first company raised here in town.

X 21. How do you know it was the first company raised here in town?

A. As my brother's son and a young man who worked for me, Capt. Little, went in the second company raised, & it was before that.

X 22. Will you swear positively that you saw this well before your brother's son went into the service?

A. I will.

X 23. How long before?

A. Two or three months.

4719 X 24. What time did he go in the service?

A. I think in August or September.

X 25. What time did the third military company leave?

A. I do not remember the third.

X 26. What time did the fourth military company leave here?

A. I do not remember anything about that one or as there was one.

X 27. Do you remember any other military company beside- the first — second leaving here during the war of the rebellion?

A. I do not.

X 28. Did you first see that well before or after the battle of Bull Run?

A. I do not remember the date of the battle of Bull Run.

X 29. Which produced the strongest impression on your mind—the battle of Bull Run or seeing that well?

A. I do not know. They both made considerable of an impression.

X 30. When and where did you first see the magnetic telegraph?

A. I do not remember.

X 31. When and where did you first see a reaper and mower in operation?

A. The first mower I ever saw in operation was in Albany, Ver-
mont, in the summer of 1855. The first reaper was in Perry
4720 t'w'p, Buchanan Co., Iowa, 1856 or 1857; am not positive
which. I think it was 1857.

X 32. Was the telegraph and railroad completed to Independence when you first saw this well?

A. I think the railroad was. I do not remember as to the telegraph.

X 33. Will you swear positively that the railroad was completed and the cars running to Independence at the time you first saw that well?

A. I am quite sure it was.

X 34. The seeing of that well, the getting of a drink of water out of it without even knowing how it was built, produced a more powerful impression on your mind than seeing the magnetic telegraph or the reaper?

A. I think it did full as much.

X 35. Did the water taste so peculiar?

A. The water tasted better than it did in my well when there was ice in it.

X 36. Who was the county officers of that county at that time?

A. I do not remember.

X 37. Was the season you saw that well a wet or dry season?

A. I do not think it was remarkable either way.

X 38. Where was the meeting held you were going to attend?
4721 A. I think it was in the open air on the west side of the
river.

X 39. Will you swear positively that it was in the open air and that that meeting was held?

A. I would not.

X 40. State what the nature of that meeting was?

A. It was simply an address to the soldiers.

X 41. By whom?

A. By Rev. John Fulton.

X 42. Did they have any music there on the occasion?

A. I do not remember as there was.

X 43. Was the service of a religious character?

A. Well, I should think that they were partially, and partially political.

X 44. Were the soldiers who attended in uniform?

A. I think they were not.

X 45. How far and in which direction from this well was these exercises held?

A. I should think from 40 to 50 rods northwest.

X 46. Did you ever see this well again after this time; if so, how long?

A. I don't think I did after that day.

X 47. How came you to go to this well in the first place?

A. I lived two miles out of town; came down on that side of the river, which fetched me right past the well. I see it was something that I had never seen the like, and like most Yankees I 4722 wanted to see what it was and got out of my wagon and tried it.

X 48. The whole thing looked novel to you, did it?

A. Yes, sir.

X 49. And that was the first time you ever saw a pitcher pump?

A. I am not positive whether it was or not.

X 50. Have you not already stated that you never saw one until 1864 or 1865; this one you might have seen in 1861?

A. I believe the answer was that I was not positive of seeing any.

X 51. The pump impressed you at the time as a novelty, did it not?

A. I do not think it did—the pump itself.

X 52. Did the pipe?

A. I don't think it did.

X 53. Now, if the pump or pipe did not impress you as being a novelty what was it made you get out of the wagon and go out there?

A. It was the manner of getting the water.

X 54. What did you see from the wagon and road that led you to determine the manner of getting the water?

A. I could see there had been water pumped there, apparently, but no dug well.

X 55. You had heard of bored wells at that time, and seen them, had you not?

A. I think not.

X 56. What was there, then, to indicate that there had been water pumped there?

4723 A. There was water on top of the ground; the pipe and pump standing there, I concluded it must be a well.

X 57. Was there much tramping about the well?

A. It looked as if there had been a good many persons around.

X 58. Had they trampled down the grass?

A. I do not remember as there was much grass there.

X 59. Did you see any grass then right around the pipe?

A. I don't remember as I did.

X 60. Who was in the wagon with you?

A. Two of my brothers.

X 61. What were their names?

A. George and Lewis.

X 62. Did you all three get out and look at it?

A. Lewis and I got out; I think George did not.

X 63. Did you discuss the matter after you got back in the wagon before George?

A. I think we did.

X 64. Did George go with you to the well that day?

A. I think not.

X 65. How was the pipe attached to the pump?

A. I do not know.

X 66. Was this a cast-iron pump?

A. It looked like it.

X 67. Was there letters blown in the pump at any place?

4724 A. I do not think there was. They are not in the habit of blowing them in. I did not notice any letters.

X 68. Now, go on and describe that pump fully—shape, hight, and size.

A. It looked like an ordinary pitcher pump, No. 4 or No. 5, as near as I remember. I cannot describe particularly the hight.

X 69. Are you now ready to swear positively that it was a pitcher pump?

A. I would not swear positively, but I am quite sure it was.

X 70. When had you been past where this well was located before the time you say you first saw it?

A. A good many times; I can't say when the last time was.

X 71. How long before that had you been along there?

A. I should think it was 2 or 3 months.

X 72. When did you see it again after seeing it the first time?

A. It was when the soldiers were here.

X 73. What soldiers?

A. It was the soldiers that were enlisted in the 9th Iowa. In my first evidence I said they enlisted for the 5th; since that I have refreshed my memory; it was the 9th.

X 74. How did you refresh your memory?

A. By seeing the records.

4725 X 75. Who showed you the records, and what records?

A. I saw the records here in the office—the printed records; Mr. Lake showed it to me.

X 76. Did he first suggest to you that you had been mistaken?

A. I think he did.

X 77. You might be mistaken about a good many of these things, might you not, and remember it differently when suggested to you?

A. Yes, sir.

X 78. Was the Empire House standing where it now is when you saw this well?

A. I think it was.

X 79. Are you sure it was?

A. Yes, sir.

X 80. What other houses were there within 20 rods of this well at that time? Describe them fully.

A. I should think there was one or two on the opposite side of the street; I couldn't describe them particularly.

X 81. Was there a blacksmith shop on the corner, right opposite the corner, on which this well was?

A. I think there was a building nearly opposite, but what it was occupied for at that time — don't know.

X 82. Did you ever get any blacksmithing done there?

A. Think I did, in 1868.

4726 X 83. When you was to the well did any one tell you how it was made?

A. I don't remember whether they did or not.

X 84. Do you know the nature of the formation of the soil there where you say you saw this well?

A. I do. It is sandy on the surface, quicksand and gravel below.

X 85. Could a well be made at that place that would operate as well as the well you saw by driving down a tube into the ground with a wooden plug in the end of it and perforations in the pipe of the size of ¼ of an inch sufficient to freely admit water and operated with a common pitcher pump?

A. I should think not.

X 86. Suppose that a pipe had been driven into the ground at that point with a wooden point in the end and with slots cut in the pipe above the point for some distance up and large enough to admit water freely, and then a rod had been inserted into the tube and driven into the pipe to a sufficient depth to drive the wooden plug out of the pipe at the bottom, and said rod withdrawn and then a common pitcher pump had been attached, such as the one you say you saw there, could it be operated thus constructed so as to furnish a supply of water, or would it in that formation fill up and become choked with quicksand?

4727 A. I think it would become choked with quicksand. My opinion is it would furnish no water at all.

X 87. Suppose that the pipe had been driven into the ground at that point into the gravel and quicksand and without any screen around the end of the pipe to keep out the fine sand, and with a pitcher pump attached, it had been used for several winters by a large number of people to get water, what would be its construction?

A. If you couldn't get any water out of it at all how could you? I just gave the opinion it couldn't be done. If it did start and run I think it would pump out until it would come in around it and make a very large hole.

X 88. Knowing as you do the formation of the water-bearing stratum at the point where you say you first saw this well, let me ask you if it would be impossible to construct a well that would furnish a good supply of water at that point by driving a tube into the ground and with a plug in the end of it, with perforations in the pipe above it, such as are usually made in these pipes, and a pitcher pump attached.

4728 A. I think it couldn't be made.

X 89. When did you first know of their attaching cloth wire to these drive points?

A. In 1867.

X 90. When I understood you to say that a well could not have been constructed at this point where you say you saw this well unless a screen point had been used?

A. I think it could not.

X 91. State when it was when you first commenced making drive or tube wells.

A. In October, 1867.

X 92. How did you construct the first wells you made? State fully.

A. I think we took an iron bar and made a hole down a little ways; attached a screen point to a piece of pipe, and drove it right down into the water bed; attached a pump and pumped water if we could.

X 93. State how long you continued to make them in that way.

A. About 2 years.

X 94. Then state how you made them from that time on.

A. We drove down a screen point with holes about ⅛ inch in size
down into the water bed; pumped out the fine material from the
coarse; then withdrawing it and putting down a point with
4729 a finer screen, which had larger perforations in the pipe and
was covered with a wire cloth, after which we attached a
pump.

X 95. How long did you make wells in that way?

A. I think less than a year.

X 96. When did you cease making wells in that way?

A. I can't tell; I have no dates whereby to refresh my memory.

X 97. Had you ceased making them that way when you went in with George Hovy, the defendant?

A. Yes, sir.

X 98. When did you go in with him making wells? Give the date.

A. I could not.

X 99. Give the year.

A. I could not give that.

X 100. Don't you think, Mr. Hovy, if you should try right hard—as hard, for instance, as you have tried to fix the date of the first drive well you saw—that you could fix the date or year that you went in with your brother in making them?

A. No, sir; as my books were burned in the big fire in Independence; all books I had when I quit the business were delivered up to other parties.

X 101. But, without any book, you can remember the time you saw the first well?

4730 A. Yes, sir.

X 102. Can't you recall any incident by which you can fix the time when you went in with your brother?

A. I cannot.

X 103. After you went in with your brother, then state how you made your wells from that time on.

A. We bored down with a 2½ or 3 inch auger to and into the water usually 3, 4, or 5 feet; then we used this screen with small perforations and pumped water and sand and dirt through it until we cleaned out the water bed; then withdrawed the same, put on our screen with larger perforations, covered with wire cloth, a tight plug in the lower end, and put that down into the water bed. It usually went right down with our hands; then we attached a pump.

X 104. Did you commence making wells this way before 1870?

A. I think we did.

X 105. How long before?

A. I could not tell.

X 106. How long do you think?

A. From 6 months to one year.

X 107. Then the only difference there was in your method of constructing these wells was that about the year 1869 you quit driving the screen points and commenced boring?

4731 The above question waived.

X 108. Are you the patentee named in letters patent No. 123,903, dated February 20th, 1872, for an improvement in the formation of driven wells?

A. I am.

X 109. What was the date of your application for that patent?

A. I think November or December of the year 1870.

X 110. Did you make your wells according to the specifications of this patent?

A. I think we did.

X 111. Did you after you went in with George Hovy, the defendant in this case?

A. We always did after we learned this way of making them, and followed the business.

X 112. When did you first learn this way of making them?

A. About *a* 1 year or 1½ years previous to making the application for a patent.

X 113. Then it was about the first of the year 1869?

A. I should think about that time.

X 114. Did you not vary your manner of making these wells from the specifications mentioned in the patent during the time you were in business with your brother, George Hovy?

A. Not as I can remember.

X 115. Had there been any important variations you would 4732 have been apt to have remembered, would you not?

A. It is a long time since I read the specification. I might not remember all of them.

X 116. The description you gave in this patent of your manner of constructing driven wells is intended, is it not, to be a correct description of the manner you constructed drive wells at the date you signed the specifications set out in said patent?

A. The only thing we expected to secure in letters patent, I think, was to secure the right of cleaning out the water bed before putting in the fine screen by the using of the coarser screen first.

X 117. Interrogation 116 is repeated.

A. I think in that patent it says nothing about boring; in fact we did not care how it was the pipe got down to the water bed, but intended to cover the process of using the screen for pumping the sand and dirt before putting the finer screen down.

X 118. You did not regard it as essential how you got down to the water bed?

4733 A. No, sir.

X 119. You sometimes found it quite easy to chuck down the drive point as far as you wanted to into the water bed in order to clear out the sand?

A. We usually bored down into the water bed 3, 4, or 5 feet; that so loosened the sand that we could very easily chuck this point into it with our hands.

X 120. Sometimes you had to drive it, did you not, to get it down?

A. We did.

X 121. Was you with George Hovy when he was manufacturing wells while you was in partnership with him?

A. The big-est part of one year I drove a separate team for the purpose of making contracts, and he worked with our hired man, who went with another team and made the wells.

X 122. Do you know how he made the wells when you was not with him?

A. Not of my own knowledge.

X 123. Where did you first see an auger for boring wells and first use one?

A. In Laporte, Iowa. I can't tell the date.

X 124. If you were to try, could you not tell the date as well as you could the date of seeing the well over the river?

A. No, sir.

4734 X 125. Did you not regard it as quite a curiosity?

A. I know it saved us a great deal of hard work.

X 126. Were not there places where the soil was porous and loose when there was no necessity of boring?

A. There was places where there was no necessity of boring, still we could make them very much quicker and easier by boring.

X 127. Was there not places where the stratum was composed of quicksand in such a way that you could do nothing more than loosening up and could not make a hole by boring?

A. I do not remember of ever seeing the quicksand but what would stand until we came to the water, so that the hole would stay open.

X 128. How far would you drive or force your permanent pipe into the water-bearing strata?

A. From five to ten feet.

X 129. Did they have any gas works in Independence at the time you saw this first well?

A. I think not.

X 130. When did you first see these pitcher pumps on sale in Independence?

A. I could not tell; I think before 1867.

X 131. When did you next hear of a driven well after seeing this first one, or see one?

A. I think in 1866 was the first I heard of one, and the
4735 first one I saw after that was the 12th of October, 1867.

X 132. About that time these wells went into use in Buchanan Co., did they not?

A. Think they did.

X 133. Did you hear anything said at the time you saw this first well what the purpose was in putting it down or by whom it was put down?

A. I think I heard the talk that the man put it down for an advertisement; I could not say who put it down.

X 134. An advertisement of what?

A. I suppose of the wells—of peculiar kind of wells.

X 135. What was he selling? Patent rights, did you understand?

A. I do not know what he was selling.

X 136. You did not hear anything said as to whether it was a patented thing or not?

A. I don't remember as I did.

X 137. How many places in Iowa have you made experiments by first driving a rod into the ground and into the water-bearing stratum, and inserting in lieu thereof an iron tube with an open end and with perforations above the same, and attached to a pump, and pumped water from it, or tried to pump water from it?

A. I think I never drove a solid rod down into the water in any place; I don't remember it.

X 138. Interrogation 137 is repeated.

4736 A. Well, I helped to drive one.

X 139. Is that the only one?

A. The only one I remember.

X 140. In that case did you first drive a rod into the ground before inserting the tube?

A. Yes, sir; a hollow rod.

X 141. I believe I understood you to say, did I not, that there was no difference in the productive capacity of a well by boring down to and into the water-bearing stratum, then inserting a screen, and with a sand pump pump out the fine sand, and then withdraw the same and insert in lieu thereof a screen covered with wire cloth, and attach a pump thereto, and driving a rod into the ground and into the water-bearing stratum a sufficient depth and pumping out the fine sand and inserting in lieu thereof a screen covered with wire cloth and attaching a pump thereto?

A. No, sir; I don't know any difference.

X 142. You think both would employ the same natural and artificial forces to obtain a supply of water from the earth?

A. I think so.

Cross-examination rests.

4737 Redirect:

Int. 1. You say in your cross-examination that you saw pitcher pumps in 1863–'4 and '5; now state what was the difference in those pumps and the one which you saw on that well and at Independence in 1861.

A. Don't remember any difference.

2. Could not any pitcher pump be easily fixed so as to attach it to a gas pipe?

A. I suppose they was most of them made for that purpose.

3. Did you hear of this well in Independence in 1861 before you came by and saw it the first time?

A. I don't think I did.

4. Did you hear how it was made? If so, state.

A. I don't know that; I did hear how it was made.

5. If this Mr. Furcht, who had enlisted, went into the 9th Iowa Infantry, about what time did the company he went into leave Independence?

A. I think in August, 1861.

6. Are you sure that Furcht was the man that went with you to this well and got a drink?

A. I am quite sure; still might be mistaken.

4738 7. Are you sure it was same one who had enlisted to go to the war in 1861?

A. I am quite sure.

8. You said, in your cross-examination, that your brother's son and a man by the name of Little, who was at work for you, went into the service in August or September. Now, state what year.

A. 1861.

9. State, if you know, what regiment they went into.

A. The 9th Iowa Infantry.

10. When Mr. Lake called your attention to the fact that you had testified that Furcht went into the 5th Iowa Infantry did he do anything more than show you the record of enlistments in the adjutant general's report and ask you to look it over?

A. That was all.

11. State whether there was considerable excitement through the county about soldiers enlisting in 1861.

A. There was.

12. State if there was as much excitement about enlistments after that year as there was in 1861.

A. There was not.

4739 13. What railroad was completed and cars running, if any, to Independence at the time you saw this first well?

A. What is called the Illinois Central now.

14. In your cross-examination you stated, as your opinion, that a

well could not be successfully made where you saw this one in 1861 with holes in the side of the pipe of ordinary size without having wire cloth over the holes. Now, state what is the ordinary size of the holes in the pipe where they are covered with wire cloth.

A. From ¾ of an inch to one inch in size.

15. State why you think a well of that kind would not work.

A. I think it would fill immediately with sand and gravel, so that no water could be pumped at all.

16. Supposing the pipe that was driven down had fine holes drilled in the side of it and a plug in the bottom and considerable fine sand was pumped out when it was first put down, would it not then work and give a supply of water, as you saw this well do?

4740 A. I think it would.

17. State whether, in your opinion, if the pipe driven down had slots cut into it and the wire fine and a considerable fine sand was pumped out when it was first put down, would it not in that condition give a supply of water as you saw this one do?

A. I am sure it would, as I have made 3 or 4 of that kind of wells in similar soil and they worked first-rate.

18. Was there any evidence of sand having been pumped out of this well when you first saw it? If so, state what they were.

A. There was sand lying on top of the ground that looked very similar to what I have pumped out since in making wells.

19. State whether a pitcher pump would be less liable to clog with sand than any other kind; if so, why.

A. The Cowan & Co.'s pitcher pumps will pump water and sand freely without clogging, as the valve works right up to the spout and the sand rolls right off with the water, while an anti-freezing pump's valve is four feet or more below the spout; the sand will fall right back and clog the pump. 4741

20. In cross-interrogatory 141 the solicitor for complainants asked you in regard to a certain manner of making a well, and then asked in case you drove a rod down into the ground and pumped out the fine sand and certain other things connected therewith. Now, state whether by driving the rod into the ground alone you could pump out the fine sand.

A. That depends upon whether it was hollow or not.

21. State whether in making wells, after you obtained your patent, you followed the process therein described particularly, or was confined to that process except so far as it related to the pumping out the fine sand from the coarser material around the lower end of the pipe.

A. What was wanted to cover by letters patent was this process of pumping out the fine sand from the coarser material, and that was the process that we followed.

22. State whether you confined yourself to any particular process of making the hole down to the water-bearing strata; and, if so, what was the process.

A. We did conform ourselves to boring with an auger and lifting the dirt out clear down to and into the water as far as we could get it. 4742

Redirect rests.

Recross-examined:

1st. Then I understand you were mistaken when you said a well could not be constructed at this point where you say you saw this well without having a screen of cloth wire around the drive point?

A. I have not understood any such question to be asked.

2. Then you can make a well just as well without the screen as with it by having the holes in the pipe small enough?

A. We can by using a pitcher pump.

3. How small must the holes be in order to use them with a pitcher pump?

A. The smaller the better. I think perhaps they might be ¼ inch holes and work.

4. What is the size of the holes usually made in these pipes when there is no screen used?

A. I have never seen any drilled that way for the purpose of making a well to be left permanently.

4743 5. What is the usual size of the perforations in the pipes that you use for pumping out the sand and clearing up the water in the first instance?

A. About ⅛ of an inch.

6. Then I understand you to say that with perforations in the side of the pipe a quarter of an inch in size, and without any screen, you can attach a pitcher pump, and after pumping out the sand until the water clears you will have a good well and sand won't bother?

A. I did not so state. I said perhaps it might be made with perforations that size, but the smaller the better. With that size hole I am sure it would bother a good while if it was made at all.

7. Could this first well you saw have operated in the way it did if the perforations in the pipe had been from ⅛ to ¼ of an inch in size, if a great many people had been using it?

A. If the holes had not been larger than ⅛ of an inch I think it would have worked. If larger, my opinion would be that it would not.

4744 8. Why do you answer this way now when in your examination before you stated that you knew it would not work unless there had been a screen around the pipe?

A. I think he asked me if the holes were ½ inch in size; if so, it would not work without a screen over it, is my opinion.

9. Don't you know that I did — ask anything about the size of the holes except to say if the holes were of the usual size?

A. In that case I understand the holes to be from ¾ of an inch to 1 inch in size.

10. Don't you know, sir, that the tubes that I refer to were the tubes where no screen was used?

A. No, sir.

11. Since the adjournment has anybody suggested to you anything that has caused you to change your testimony in relation to the operation of a well without a screen and with a pitcher pump?

A. I have not said a word to any man about making wells in that manner since the adjournment.

12. Will not quicksand and water flow readily through a $\frac{1}{8}$ of an inch hole?

A. It will.

4745 13. Will not a pitcher pump attached to a tube with $\frac{1}{8}$ of an inch perforations in it, without any screen over it, and projected into a water-bearing strata of quicksand and gravel, continue to pump sand more or less, and will it ever become perfectly free from sand?

A. That would depend very much upon how coarse the gravel, how little the quicksand mixed with it.

14. Suppose that it was the same kind of water-bearing stratum that it is where you saw this first well?

A. I think it would be a very long time, if it ever cleared up entirely; what I mean is that there would be some fine sand come for a long time.

15. How long would it take the water to clear under those circumstances in that place?

A. I think in ten minutes it would be clear enough to drink and use for most purposes, except a very little in the bottom of the pail, where there would be some fine sand.

16. And you would continue to find sand in the bottom of
4746 the pail for a long time, would you not?

A. Yes, sir.

17. Now, how big a pile of sand did you see then that had been pumped up out of this well?

A. I don't remember.

18. Was there a pailful*l* or a cart-load?

A. A pailful*l* would be a great deal nearer than a cart-load.

19. How did you know where this sand came from; was it because the soldiers were leaving about that time that you knew it was pumped out of the well?

A. I did not know where it came from, but still it looked the same as where we have pumped out many times since.

20. Pumped out where?

A. Right near there, through the same tool that we are describing.

21. Was the sand in a pile by itself, or was it scattered around, and had it been tread on?

A. It was scattered around and had been stepped on more or less.

22. Did it cover the grass near the pump?

A. I did not notice any grass near the pump.

23. Do you think there was any near the pump?

4747 A. I could not say whether there was or not.

24. So, after the lapse of about 19 years, you are able to swear that the sand you saw at that time, which was scattered around and tread on, resembled the sand you took at the same place last spring?

A. I think I can.

25. Does the fact that the soldiers were starting for the war about that time enable you to have that wonderful recollection?

A. That is the fact which fixes it in my mind beyond a doubt.

26. Then if it was not for the fact of the soldiers going off to the war about that time your memory would not be as good?

A. I do not believe that I could fix the date.

27. The soldiers going off to the war about that time only improved your memory in the direction of the date of this well that had been put down, but in nothing else?

A. It fixed the date of the year 1861 in my mind.

28. Did it fix anything else?

A. I can't answer this; I don't know how.

29. Why can't you answer it?

4748 A. I don't know how.

Q. 30. Have you heard matters connected with this well talked over much?

A. I have a good deal.

31. Are you interested in the event of this suit?

A. Not directly.

32. Are you contributing money or time to defeat it?

A. Yes, sir.

33. How are you interested in it indirectly?

A. The same as most of our citizens.

34. Have you got a drive well, do you mean?

A. Yes, sir.

35. How many?

A. I believe I have 3 in use.

36. If at the time you signed your specifications in your patent in 1872 you were boring all your wells, why did you state in such specifications that you drove the wells, and say nothing about boring?

A. I did not claim or attempt to make a claim for boring or driving either, but on the method of pumping out the fine sand and collecting the coarse gravel for a water-bed to put our fine screen into, so that the water would flow freely and the fine sand not bother in pumping.

4749 37. Yes; but if it was so much easier to make the wells by boring, and you say you knew such to be the fact, and was then practicing it, and had been for a long time, why did you direct driving to be done instead of boring?

A. I don't know, except it was the more usual practice, or had been.

Recross rests.

Redirect:

1. Have you changed your testimony in your recross-examination?

A. I think not.

2. How was this first well, that you say you saw in 1861, about pumping up fine sand, the last time you pumped at it?

A. I noticed no sand.

3. Has the talk about this well changed your recollection in regard to the well?

A. No, sir.

4. Was the facts in regard to the location of the well, how it looked, plain in your mind all the time, without regard to the date you saw it?

A. It was.

4750 Re-recross examination:

1st. Has this well been the principal thing that has occupied your mind since you saw it?

A. It has not.

(Signed) E. S. HOVY.

Subscribed and sworn to before me and in my presence by the above-named affiant this 9th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

(Endorsed:) Filed Oct. 20, 1880. E. R. Mason, clerk.

4751 Adjourned until Thursday at 9 o'clock a. m.

MARCH 11, A. D. 1880.

Met pursuant to adjournment.
All the parties present.

E. A. HOVY, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

—. My name is E. A. Hovy; am 47 years old; reside at Tampico, Whiteside Co., State of Ill.; am at present in no permanent business.

2. How long have you resided at Tampico, Ill.?

A. Since the fall of 1874.

3. Where did you reside before you moved to Whiteside Co., Ill.?

A. At Independence, Buchanan Co., State of Iowa.

4. How long did you reside at Independence, Iowa?

A. In the winter of '67 & '8 I came to Independence.

5. What business was you in while you resided at Independence, Iowa?

A. Putting in iron-tube wells.

6. How long did you follow that business?

A. About 11 years.

7. In how many different counties in Iowa did you put in that kind of a well? And give the names of the counties.

4752 A. Buchanan, Black Hawk, Butler, Bremer, Benton, Fayette, Chickwood, Delaware, Floyd. Perhaps others.

8. What is the nature of the soil in which you find water in those counties in which you could make a well?

A. Sand and fine gravel.

9. Have you found any other kind of soil except sand and fine gravel in which you have made wells? If so, state what it was.

A. Have not.

10. Have you seen a copy of the specifications and drawings attached to reissue patent 4372, dated May 9, 1871, issued to Nelson W. Green for an improved method of constructing artesian wells?

A. I have.

11. State whether, in your opinion, in the soil as you have found it in Iowa where you have made wells, a well could be made by the use of implements, drawings of which are attached to said reissue of letters patent, that would work successfully and be a good, productive well.

A. Could not, sir.

12. Explain fully why not.

A. On account of the sand pumping into the tube, if it could be pumped at all, it would fill the pipe with sand so that you could not pump.

4753 13. State whether the water could be pumped up through the sand in the pipe.

A. It could not.

14. How deep have you ever made one of these tube wells in Iowa?

A. I don't remember; I should think about 40 or 45 feet.

15. How shallow wells have you made in Iowa in this manner?

A. My best recollection, about 12 feet.

16. State whether the depth of the well would make a difference in the making of the same by the use of the implements shown in the patent in suit; and, if so, explain fully the effect.

A. It would make a difference; a shallow well, by using a pitcher cistern pump, it might possibly get water and sand; there would be more or less sand come with the water; the shallow well the sand would come more readily and be lifted out of the top with the water; a well over 15 feet deep the sand would settle back in the tube and the pump would not lift it out as in the shallow well, and so obstruct that you could not pump any water through the tube.

17. Do you know of any device by which a tube well can
4754 be made in the soil as it is in Iowa and work successfully? If so, explain fully what the device is.

A. I do; by using at the lower end of the tube fine brass wirecloth to keep back the sand after pumping out the fine sand from the coarser thro' a tool at the lower end, which I will call a drive point, this drive point being perforated with small holes that would admit the fine sand and not the coarse.

18. Are you acquainted with George Hovy, the defendant in this action?

A. I am.

19. Was you a member of the firm of Hovy Brothers, of which the defendant was a member?

A. I was.

20. You may now state how you made wells while George Hovy was a member of the firm of Hovy Bros. Give the tools you used, the size and make of them, the kind of pipes and pumps, the manner of putting down the wells. Explain all the points, parts, and process fully.

A. By boring with an auger down into the earth to water and

into the water, removing the dirt upward to the surface of the ground, then putting down a tube with drive point I have described into the water and forcing it to the water-bearing strata; then attaching a pitcher or cistern pump to the tube, pumping out
4755 the fine sand; then withdrawing the tube; then inserting a
tube having at its lower end what we call a screen point. This point was made by drilling holes about ¾ of an inch to an inch in size through the tube, about 2 feet or 2½ feet up from the bottom, and covered with fine brass wire-cloth and putting a plug, iron or wood, in the lower end of the screen tube. This screen point is inserted in the same place in the water-bearing strata where the fine sand has been pumped out; then we attach the pitcher pump and pump out what dirt and very fine sand that comes through this fine screen; then we take off the pitcher pump and attach an anti-freezing pump. The cylender or barrel in which the plunger works, in drawing the water, in nearly all these wells, is down about 4 feet from below the surface of the ground. The cylender is connected with the stock or top of the pump, to which a spout is attached, by an iron tube. The augers we used — from 2 to 3 inches; they are iron augers, such as are used in timber, attached to a small tube for a handle or shaft for using and boring down in the earth and removing the dirt. This iron tube used for the well we used an inch and a quarter and an inch and a half in size.

21. What is the purpose of using this tube with small holes in the side which you call a "drive point?"

4756 A. Pumping out the fine sand to prepare the water bed, so that the water will flow freely through this screen point.

22. In what condition does the pumping out of the fine sand leave the material around the screen point?

A. The coarse sand or fine gravel loose so that the water flows freely through.

23. What are the size of the holes drilled into this tube which you call the "drive point?"

A. They are small holes; I should say about an ⅛ of an inch.

24. Who was in the firm to which you belonged, making these drive wells, before George Hovy joined it?

A. It was known as E. S. & E. A. Hovy; that was all that was in it.

25. State whether you had adopted the method of making wells which you have described before or after George Hovy joined the firm.

A. Before he joined the firm.

26. Have you ever seen and examined a copy of the specifications and drawings attached to letters patent No. 73425, dated Jan'y 14, 1868, issued to Nelson W. Green for an improved method of constructing artesian wells?

A. I have.

4757 27. State whether there are any ambiguous terms or complicated devices described therein, so that a person skilled in the art of making that kind of wells would be unable to make a well of that kind from reading the specifications and examining the drawings?

A. No; I don't think there is; I think it could be made.

28. Have you examined a copy of the specifications and drawings attached to patent No. 73425, dated Jan'y 14, 1868, and also a copy of the specifications attached to reissue of said patent 4372, dated May 9, 1871? And, if so, state whether there are any differences in the description of the two specifications; and, if so, state what they are fully.

A. I have; there are differences in the reissue; that it is the hole or opening that is made by a mere displacement of the earth which is packed around the instrument and not removed upward in the hole as in boring, to distinguish it from sunk or bored
4758 wells, may be termed a driven well. In another place, in certain soils the use of the rod preparatory to the inserting of the tube is unneccessary, as the tube itsself from which the water is to be drawn may be the instrument which produces the well by the act of driving it into the well to the required depth. Here is another difference: In some cases the water will flow out from the top of the tube without the aid of a pump. Here is another difference: Without removing the earth upward as it is in boring.

29. In regard to the specifications in the reissue patent, where he speaks of driving the tube itsself through which the water may be drawn, state if you ever knew of that method being used in making wells; and, if so, state when you first knew of wells being made without the use of a rod to make the hole.

A. I have known of a method being used by driving the tube without using any rod to make a hole first. The first one I ever saw put down was — the year 1867, and I helped — put that one down.

4759 30. From 1867 to 1871, do you know of that method being used; and, if so, how frequently do you know of its being used?

A. I do know of its being used and very frequently, for during that time I had put down several hundred myself.

31. Have you ever made any experiments to demonstrate the difference between an open or dug well and a driven well, where the pumps went to the same depth in the same water-bearing strata?

A. I have.

32. When and where did you make those experiments?

A. In the city of Independence, Buchanan Co., Iowa, March 8, 1880.

33. Were any persons present assisting you; if so, who?

A. There was.

34. Who was present?

A. Dr. George Warne and George Hovy.

35. Describe, now, the apparatus you used and what you did and the results.

A. We had a box about 3 feet long, about 15 or 16 inches broad, about 30 inches high; within about 7 inches of one end in this box we had a cylender, made of perforated tin, about 6 inches in diame-

ter, resting on the bottom of the box. The cylender was
4760 about 30 inches long, coming to the top of the box. In the
other end of the box there was a small tube representing the
tube of a "drive well." The bottom end of this tube was perforated
about 7 inches and the pump attached to the top of the tube. The
same kind of a tube, with perforations at the bottom and same kind
of a pump attached, placed in the centre of this 6-inch cylender. This
box then was filled with ordinary sand within about 3 inches of the
top; then it was filled with water till the sand was just covered. The
one where this 6-inch cylender was represented an open well, the other
one at the other end of the box representing a tube well in the sand.
Then we took and put *the* some up round the cylender, so that it would
bring the sand up above the water, so that the water could not run into
the cylender without running it through sand. We commenced
pumping at both these pumps at the same time, pumping the water
right onto the sand in the box. We pumped both 5 minutes; measured
the water in the one representing the open well, there being in
said box at the time we commenced pumping 26½ inches of water.
After pumping 5 minutes there was only 19 inches in the
represented open well. Then we removed the sand from
around the top of this open well, leaving the sand level in
the box. Then we pumped from both 5 minutes, pumping
the water right back into the box on the sand.
4761 Then we measured the water (illegible) and there was 26½
inches of water in the open well. In the first 5 minutes in
pumping it showed that the sand obstructs the water from coming
into the open well, the next 5 minutes showing no obstruction by
the sand, but we could not lower the water in the open well by
pumping. While pumping both pumps, the one in the open well
gave a larger stream. Then we pumped from the pump in the
open well into another tub in one and a half minutes; we pumped
it with air—in the perforations in the tube below—measured the
water, and there was 8 inches in the open well; waited one
minute, then pumped at the same pump ½ minute; it took air
again; measured water and there was 8 inches. We waited
one minute, then pumped ½ minute and it took air, 7½ inches of
water in the well. We waited one minute, then pumped ½
minute; took all the water we could get, leaving 7 inches. These
last 3 pumpings show that the sand obstructs the water from flowing
freely in the open well. Then we turned this water all back
into the box with the sand; then we pumped at the pump that was
on the other end of the box, representing the tubular well, pumping
the water out into a tub; pumping that pump 2 minutes it took air,
and then we measured the water in the open well and found
4762 12 inches; then we waited 2 minutes for the water to run
through the sand, then pumped again 25 seconds, when it
took air. We measured the water in the open well and found 11
inches; we waited 2 minutes, pumped 13 seconds, when it took air;
measured the water in the open well and found 10 inches; waited 3
minutes and pumped all the water out that we could get in 1¼

minutes. There was 7⅝ inches then in the open well. That was all of that experiment at this time.

36. State whether you observed that cylender made of perforated tin during these experiments; and, if so, whether anything filled into the orifices in the tin; and, if so, what and how much.

A. I did observe the cylender. Sand worked into the orifices quite a good deal.

37. State whether this sand prevented water from flowing in or not.

A. It did prevent it.

38. How high up on these pumps that you used was the highest hole from the bottom?

A. Seven inches.

39. Did you make any other experiments with this apparatus? And, if so, state what they were.

A. We made some other, but I don't remember exactly what was the result.

Direct rests.

4763 Cross-examination:

X Int. 1. When was the company of Hovy Bros. formed which you say consisted of George Hovy, E. A. Hovy, and E. S. Hovy?

A. In the year 1871.

X Int. 2. What time in the year?

A. In the spring of the year.

X 3. Is that firm still in existance?

A. No, sir.

X 4. When did it dissolve?

A. In the winter of '73 and '4.

X 5. Where was the headquarters or place of business of Hovy Bros. during the time they were in business?

A. Independence, Buchanan Co., Iowa.

X 6. What part of the business did George Hovy perform?

A. Sinking and putting in wells and getting orders for wells.

X 7. What part of the business did E. S. Hovy perform?

A. Taking orders and sometimes assisting in putting down wells and ordering materials and paying for materials.

X 8. What part of the business did you perform?

A. Taking orders for wells, assisting in putting in wells, ordering material, and paying for material. We all three — us collected (?) more or less as we travelled.

X 9. Who kept the books of the firm?

A. We all kept a seperate book of the work we done and monies collected and monies paid out.

4764 X 10. You mention a number of counties in which you have put in tube wells in Iowa. Were these wells put in by Hovy Bros.?

A. A portion of them?

X 11. What portion was put in by Hovy Bros.? State as near as you can.

A. I could not tell; I could not state; perhaps half, more or less.

X 12. Do you mean half, more or less, in each county? I think less.

A. That is what I meant.

X 13. About how many wells did Hovy Bros. put down in Buchanan Co. during the time they were in partnership?

A. I don't know about how many.

X 14. State, as near as you can, about how many. Was there as many as 500?

A. I should think not.

X 15. Was there 400?

A. I could not say whether there was 400 or not.

X 16. How many were there put down in Black Hawk Co. by Hovey Bros.? State as near as you can.

A. We might have put 100, more or less.

X 17. How many did the firm put down in Butler Co., Iowa? State as near as you can.

A. I should think we put in 100, more or less.

X 18. How many did the firm put in in Bremer Co., as near as you can recollect?

A. Don't think we put in as many as in either one of these other counties.

4765 X 19. Did you put in half as many? Give the best information you can.

A. I don't think we did.

X 20. I will ask you if you have data or know of any data by which you can arrive at the number of wells put in by Hovy Bros. in Iowa? If so, state what the said data is, in whose possession it is, and where it is.

A. I have no data, and I don't know of any; I have a book, or had one, which is a partial record; I don't know whether it is at my house or not.

X 21. Is that book that you refer to a book containing the business of Hovy Bros. or a part of said business?

A. I could not say whether it does or not.

X 22. When did you quit the well business?

A. In the spring of 1878.

X 23. What business have you been engaged in since?

A. No particular business.

X 24. Did you ever make or assist in making a dug well in Iowa?

A. I have.

X 25. How many, and where?

A. I now remember of but two, in Perry t'p, Buchanan Co.

X 26. What was the formation of the water-bearing strata in these wells? Was it coarse gravel, gravel and sand, fine and quicksand?

A. Very little gravel in clay.

X 27. Are there not many places in these counties where
4766 you say you have made wells, where the water strata is composed of gravel or coarse gravel and sand, where such a well as is described in Green's patent would work well?

A. There is not.

X 28. Did you while you were in the well business ever make or attempt to make such a well as is described in Green's patent?

A. Never did.

X 29. Do you now swear that a well constructed after the manner described in Green's reissue letters patent could not be made to work well in any of the counties in which you say you have made wells?

A. I don't swear that it could not, but not where we have made our wells; it could not, in my judgment.

X 30. Are you acquainted thoroughly with the principles that govern the movements of air and water?

A. Don't know as I am.

X 31. Are you an expert in the art of making wells, including the science that governs the formation of water strata and the movements of waters under different applied forces?

A. I am somewhat.

X 32. Suppose a tube, such as you have described in your direct examination as being set out in specifications of Green's reissue of letters patent, should be inserted into a water-bearing strata composed of very coarse gravel, the earth packed tightly around
4767 the tube, a pump attached at the upper end, supposing, of
course, the holes in the pipe shall be 2 feet below the top of this water-bearing strata, would that make a successful well, it being understood, of course, that the gravel is sufficiently coarse that it will not pass through the holes or into this tube?

A. I rather think it might.

X 33. Don't you know that it would work well?

A. Well, I never see one made in that way.

X 34. Having answered that you are somewhat of an expert in the art of making wells, and having also stated you had long experience in that business, having made experiments in reference to these wells, are you now prepared to swear, and do you swear, that a well constructed after the manner described in the previous question would not make a successful well; or, not having seen one made, you don't know whether such a well would work or not?

A. I think it would work.

X 35. Do you or do you not know whether it would make a successful well?

4768 A. I never had any experience in such water-bearing strata and gravel as he has explained; I think a well would work.

X 36. Interrogatory 35 repeated to the witness.

A. My opinion is that it would.

X 37. Do you refuse to give any other answer?

A. That is as good an answer as I can give to the question.

X 38. Are you interested in the event of this suit?

A. Am not.

X 39. If this suit should terminate against the defendant in this action and the Hovy wells declared to be an infringement on Green's patent, would you be financially affected thereby, directly or indirectly?

4769 A. Don't know that I should be affected.

X 40. Then, what arrangement had you, if any, with your copartners or brothers or any one else to save your harmless from any costs or judgment that might be rendered against you for infringement or for the payment of any royalties that might be demanded of you?

A. I have none.

X 41. You stated in your direct examination that in making your tube wells you forced the drive point into the water-bearing strata. Now, please explain how you forced it.

A. Generally by driving; sometimes we have taken hold of the tube by hand, lifting up, and dropping.

X 42. About how — did you force or drive usually?

A. From 4 to 10 feet.

X 43. You say you bore with an auger into the water. If you should strike a water-bearing strata 10 feet or 12 from the surface and that should not furnish you with a sufficient supply, do you not or have you not forced or driven a rod and tube, or either
4770 of them, below and into *into the* another water-bearing strata several feet below the one to which you bored?

A. I think I never did. We have always found plenty of water when we have driven that deep.

X 44. How deep do you understand the question to state?

A. Ten or twelve feet.

X 45. What do you usually use for driving the tube or point? And state whether or not you put anything on the top of the pipe to protect it.

A. We had a socket head that fitted onto the top of the pipe filled with wood or wood in it. We used an iron sledge.

X 46. What was the diameter of the pipe or point in which the the largest holes were made?

A. Inch and a half and inch and a quarter.

X 47. Were these holes made all round the pipe or only on one side of it?

A. All round.

X 48. Did the holes come opposite each other in the pipe, or very nearly so, as a rule?

A. They did not.

X 49. How far apart were they?

A. I should say ½ inch, more or less.

X 50. You say you had a wooden or iron plug in the bottom of the pipe. Did you ever drive this plug out after making your well?

A. Don't remember of ever driving one out.

4771 X 51. How would it affect the working of the pump if you should drive it out?

A. My opinion is the well would fill with sand.

X 52. You say you put a fine brass screen over the perforations to keep the sand out; would not a tube work, if the holes drilled in it were very small, without any screen at all?

A. If the holes were as small as the meshes in the wire it probably might work; never saw one made in that way.

X 53. Would not a tube work in an ordinary strata of gravel and coarse sand with the holes considerably larger than the meshes in the wire without any screen over them—say the holes are the 32d of an inch in diameter?

A. I think it would.

X 54. You say you bored with an auger down and into the water; do you mean to be understood that after withdrawing the auger it would leave a hole in the water-bearing strata?

A. It would not.

X 55. You stated that in 1867 you helped to put down a well by driving the tube itsself; was there a plug in the bottom of that tube, and was there a screen over the perforations in the bottom of the point?

A. The lower end of the pipe was closed by iron or wood in all the wells I put down that fall; we put down three or four that had slots; we used the screens in all the rest.

4772 X 56. The 3 or 4 that you say you made that had slots in them, please state how far up the pipe they extended; what was the size of these slots; how far from the point did they commence.

A. About 15 inches, more or less; the hole was left the width of the thickness of a thin case-knife; we carried a knife with us to fix them in that way; I should say they commenced about 5 inches from the point.

X 57. Where did you get this idea of making a point with slots in from.

A. We never made any; we bought them of Mr. Balcomb, of Waterloo.

X 58. Did that kind of a point work well?

A. It did not.

X 59. Please state what was your experience with that kind of a point.

A. We took some of them up; they did not work successfully.

X 60. Now, if you had put down a tube such as is described in the specifications of Green's patent, reissue 4372, in a water-bearing strata with very coarse gravel, and the same worked well, as you say you think it would, and in attempting to put down one in another place where the water-bearing strata was composed of fine sand, you being aware of the composition of this strata before driving the tube, would it not occur to you, as a practical well maker and one skilled in the art of making wells, that in that kind of a water-bearing stratum it would be neccessary to use a plug in 4773 the end of the pipe, with very small holes, or use a screen with the ones already made?

A. After having experience I would know it to be neccessary; the pipe would fill full in putting down, so that if there was much depth you could not pump (?) the water.

X 61. How large were the perforations in this tin cylender which you used in the experiment on March 8, 1880?

A. Fine perforations; I could not say how many to the inch.

X 62. Did these perforations extend the entire length of this cylender, or was the entire sides full of these perforations?

A. They did extend nearly or quite to the end; they covered the entire surface of the cylender.

X 63. Was there a man at each pump in this experiment, or did one man work both pumps from one lever?

4774 A. One man worked both pumps, one with each hand, working each plunger from the bottom to the top of the cylender at each stroke, both running at the same time and number of times.

X 64. The first time you pumped both pumps 5 minutes where did the water go—outside or in the box on the sand?

A. It went back on the sand in the box.

X 65. During this time did the one representing the driven well furnish a continual supply of water, and full?

A. It was continuous, but not quite so full as the other pump.

X 66. You say that the perforations in the pipe representing the driven well extended 7 inches from the bottom, and that the perforations in the tin cylender extended about to the top of the said cylender, nearly 30 inches. Now, suppose the perforations in this cylender had extended only to the hight of 7 inches from the bottom, in your opinion would there have been any difference in the depth of water in this cylender at the time you measured it at the end of 5 minutes?

A. I think there would.

X 67. Please explain what the difference would be under such circumstances.

4775 A. The surface for the water to come into the open well would have been less; therefore the obstruction would have been greater; the water would suck faster in the open well when the pumps are running.

X 68. You say the sand formed an obstruction to the water flowing freely into this tin cylinder; would it not operate the same against the screen on the drive point?

A. It would.

X 69. Suppose this cylinder had been filled with sand and no other change made, what would have been the difference in the supply or production of the two wells, if any?

A. The cylinder [sand] (?) would have obstructed the water coming in this cylinder somewhat. I think that pump would have taken air before the other would.

Adjourned until Friday the 12th day of March, A. D. 1880, at 8.30 a. m.

MARCH 12TH, 1880—8.30 a. m.

Met pursuant to adjournment.

All parties present.

X 70. Did you place the tube that represented the drive well in the box before you put in the sand, or did you put the sand in first and then press the tube down through the sand to its position in the box?

A. The tube was put in first.

X. 71. You say the tin cylinder placed in the box you have described represented an open well. Did it not represent an 4776 open well with the earth thoroughly saturated with water from top to bottom of the well in soil composed of loose material, so that the water could run freely into the well its entire length, and water covering the surface of the ground?

A. It did not in the first pumping, because we took the sand and piled it up around the cylinder so the water at no·time covered the sand around near the cylinder.

X 72. About how much surface of sand was there around this cylinder that was not covered with water, and was not the balance of the sand in the box covered with water?

A. There was about 3 or 4 inches of sand not covered; the balance was covered with water.

Cross rests.

Redirect:

1. Whereabouts was this sand that was not covered with water?

A. Around the top of the six-inch tube representing the open well.

2. Did you at any time during the experiment level down the sand; and, if so, what effect did that have on the water in the cylinder representing the open well?

A. We did level the sand down so it was level in the box; then we could not lower the water down in the open well at all.

4777 3. What prevented the water from flowing into this cylinder representing the open well when the sand was piled up around it?

A. The sand.

4. State how it prevented it.

A. The sand obstructed the water from running as free as where there is no sand.

5. Did the particles of sand fill into the holes in the perforated tin and affect the flow of the water in that way?

A. It did. Considerable sand worked into this perforated tin and retarded the flow of water.

6. State whether the sand around the bottom of the tube representing the drive well was as fine as the sand around the perforated cylinder representing the open well.

A. There was a small quantity around the one representing the tube well. The finest had been taken out.

7. Why was that pump representing the tube well fixed in that way?

A. It was to show a greater flow of water than would be if the finer — was left close around, as this would represent the manner in which we made our wells.

8. State whether this coarse sand being placed around the tube would keep the fine sand from being drawn up into the tube when you pumped.

4778 A. It would serve as a filter and the fine sand would not come to the screen.

9. In answer to cross-interrogatory 65 you stated that the supply furnished by the pump representing the driven well was continuous, but was not quite as full as the other pump. Please explain what you meant by that answer.

A. The flow from the pump was not quite as large as from the flow in the pump — open well.

10. In answer to cross-interrogatory 42 you said something in regard to the distance you forced or drove your pipe. Now, state whether you did any forcing or driving above the water-bearing stratum after the fall of 1870.

A. We did not.

11. In answer to cross-interrogatory 32 you said you thought a well would work with an open-ended tube and holes drilled in the pipe without a screen over them in very coarse gravel, where it was so coarse that it would not pass through the holes or into the tube. Will you now tell us whereabouts in Iowa you had found water in that kind of gravel?

4779 A. I never have found it in that kind of gravel.

12. State whether you have ever found that kind of gravel in Iowa unmixed with sand, either with or without water in it.

A. Never have.

13. In your practice in making wells in Iowa have you ever had the screens over those holes break or wear out; and, if so, what effect did it have on the well?

A. I have had them break. They filled with sand so that the well would not work.

Redirect rests.

Recross-ex.:

Re-X Int. 1. In your answer to redirect question No. 2 you state that during your experiment you did level the sand in the box. Did the cylinder not then represent an open well, with the earth thoroughly saturated with water from top to bottom of the well in soil composed of loose material, so that the water could have free access through the soil to the well its entire length, and water covering the surface of the ground?

4780 A. When we leveled the sand in the box it did not cover the entire length of the cylinder representing the open well. The cylinder stood above the sand and water about 3 inches.

R. X 2. Then did it represent a well such as has been described in the previous question, with this addition, that the well was curbed up or walled up a foot above the surface of the water covering the ground?

A. It did.

Recross rests.

(Signed) E. A. HOVY.

Subscribed in my presence and sworn to before me this 12th day of M'ch, 1880.

[SEAL.] (S'g'd) FRANK JENNINGS,
Not'y Public.

4781 S. P. McEwen, being produced, sworn, and examined on the part of the defense, deposes as follows:

1. What is your name, age, residence, and occupation?

A. My name is S. P. McEwen; am 54 years of age; reside in Independence, Buchanan Co., Iowa; am a carpenter and joiner.

2. How long have you lived in Independence, Buchanan Co., Iowa?

A. Since June, 1853.

3. In what part of the county did you reside during that time?

A. Independence.

4. Did you ever hear of wells being made by driving an iron tube into the ground and attaching a pump to the top?

A. I never did till I see it.

5. Where did you see such a well first?

A. In the city of Independence.

6. State in what part of the city; describe the location as near as you can.

4782 A. On the west side of the river; I cannot call the block, but the well was on the same block as the Presbyterian church, on the vacant lot on the northwest cor.

7. Look at the plot here shown you, marked "Exhibit B" of defendant's testimony, and state whether this plot correctly represents the blocks and streets in the vicinity of where that well was.

A. It does.

8. On what block, as numbered on this plot, and whereabouts on the block, was the well?

A. On block 3, on the N. W. cor.

9. What buildings or improvements were on that block at the time you saw this well?

A. I think the little, small house now occupied by Goodin was on it at the time, or at least a part of it.

10. Was there any other buildings on the block at that time?

A. I think Ross House, now occupied by Mr. Pond.

11. Describe how this well looked.

4783 A. Well, sir, it was an iron tube driven down into the ground and *and* standing above the ground about 18 or 20 inches, and a small cistern pump, I should call it, attached; there was no curb or box around it.

12. State whether you used this well pumping water.

A. I have, frequently.

13. About how long do you know of the well remaining there?

A. It stood there pretty much all thro' the summer of 1861.

14. State whether you saw other persons use it; and, if so, how many.

A. I could not tell how many. There were a great many private citizens and recruits or enlisted men. I suppose there were between 80 and 90 men there in Lee's company drilling that used the water.

15. What year and time of the year was it that you saw this well?

A. In 1861, along in the spring, between the 15th of April and the 1st of June; along there.

16. Have you any data by which you fix the time when you first saw this well? And, if so, state.

A. Well, in the first place, it was the first call for volun-
4784 teers. Everybody was excited. They were enlisting and
drilling all round; and the next is a little family matter between Col. Jed. Lake and myself. Col. Jed. Lake went to keeping house in 1861. We were old cronies and our women were strangers, and I went to Jed. Lake's house on Sunday morning and told him and his wife to come down to my house, so that the women could get acquainted. We left the women and Jed. Lake and I went to see the drive well. We called on the way to see Alfred Ingalls, now in Texas, and he went with us to see the well. We all pumped water out of it and drank. There were a great many visitors around at the time.

17. Have you any other data by which you fix the date of the well?

A. I don't think I have any more; think that was enough; was building on the west side at the time and passed and repassed it every day.

Direct rests.

4785 Cross-examination:

X Int. 1. Where did you reside at the time you say you first saw this well?

A. In the city of Independence, on the east side of the city. I lived in lot 1, block 2, Malonie's addition to Independence.

X 2. About how far was your residence from this well you have located?

A. Well, sir, a little over a ¼ of a mile—between a ¼ and a ½.

X 3. You say you passed and repassed this well nearly every day. How come you to be so often past this well?

A. I was building on the west side of the river.

X 4. What were you building and where was it located?

A. Dwelling-houses; they were on the west side of the river. I can't give you the number of the lots and blocks.

X 5. What direction was it from the well, about how far from it, and who were you building the houses for at the time you first saw this well?

A. Direction was southwest; I should think across two or three
blocks. I was building a house for a man by the name of
4786 Nathaway, a Michigan man.

X 6. Is the house you were then building still standing on the same site?

A. I don't know whether it is or not.

X 7. What was the nearest building or improvement to this well you have located?

A. This small house owned by Goodin, in the same block.

X 8. Please state what direction this Goodin house was from the well, give the distance as near as you can, and state if the house is still standing in the same place.

A. It is on the S. E. Cor., on the next lot east, same block; it is a little southeast. The well was on the corner lot and the improvement was on the next lot east of it. The house still stands there.

X 9. Now, please state whether there was any building on the N. E. Cor. of block 7? If there was, state who lived there, if you know.

A. Don't know; can't remember who lived there at the time.

X 10. Was there any buildings of any kind directly or nearly directly opposite on block 22, north of where this well was located?

4787 A. I think there was not at that time. There was an Irish shanty a little north of the corner at that time, but it was moved away. J. S. Woodword bought that block and it was fenced in about that time, '61 or '62.

X 11. How wide was Main St. on the west side of the river at that time?

A. About 66 feet, I think.

X 12. Was the pump that you saw on the top of the tube open at the top or closed?

A. I could not say; it was a small pump, what we call a cistern; whether it was a pitcher or not could not say.

X 13. Was there a well like this one you have described in that same place the next year after you saw this one or the 2d year?

A. No, sir; I think the first one was taken up in the fall of the same year and others put down the next year.

X 14. State when you next saw a well of this kind and explain all you can remember about it, and when and where.

A. I don't know; the curiosity was somewhat satisfied on the first well, and there were several put down in the vicinity the next year, and have been put down ever since.

4788 X 15. Are you positive there were any wells of this kind put down the year following the date you saw this well?

A. In 1861 I am positive is the first one I ever saw; in the year 1862, I am not positive.

X 16. Who put this well down?

A. I do not remember the name of the firm; one of them was called Charlie; they were Eastern men, stopping here at the White House.

X 17. Do you know of your own knowledge how this well was made?

A. Yes; it was made by driving an iron tube down into the ground to the sand.

X 18. Did you see this well made?

A. Yes, sir; I did.

X 19. Did you see this tube driven into the ground?

A. Yes, sir.

X 20. Describe the point on this tube as particularly as you can.

A. Well, sir, it was a wooden plug stuck into the bottom of the tube a little larger than the iron, of hard wood. There was small holes drilled into the bottom of the tubing; no screen on.

X 21. Were you present most of the time they were making this well?

A. I was.

4789 X 22. Did you know anybody that assisted in making
that well, that was at work there in any capacity; and, if so,
who?

A. I think C. T. Kimball was one who was there and took quite an active part in putting it down; think he was one of the hotel keepers of the White House at that time; there were quite a good many standing round C. T. Kimball; I don't remember who they were.

X 23. Did you know T. H. Tyson at the time, and was he engaged at helping in putting the well down?

A. I knew him at the time; I don't know whether he helped to put it down or not?

X 24. Did you know one J. E. Trexler at that time; and, if so, did you know where he resided at the time?

A. I knew J. E. Trexler; lived just north of where the well was, on Main street; he kept a restaurant about that time or soon after.

X 25. What was this tube driven down with?

A. With a sledge or beetle or something of that kind.

X 26. You say in your direct examination there were a
4790 good many soldiers drilling at that time; now, please state
how many companies there were, what companies, who was
captain of them, and where they drilled.

A. There was only one company at that particular time; D. S. Lee, capt.; they drilled on the west side of the river, on the vacant lots on block 4; they were there on the north side of the street also.

Adjourned until 1.30 p. m.

1.30 P. M.

Met pursuant to adjournment.

All parties present.

X 27. Was anything said about a patent, in connection with this well, at the time you saw it or while it remained there?

A. Rather think there was; won't be positive.

X 28. Was it stated by anybody that there was a patent on this well; what is your best recollection on that point?

A. My best recollection is that it was called an experimental
well; I don't remember whether anything — said about a
4791 patent or not; I don't think there was at that time.

X 29. Was there any boards or box or platform around or under this pump, or was the ground bare around the tube?

A. There was not; it was bare.

X 30. It excited a good deal of curiosity—was regarded as a wonderful thing, and created a good deal of excitement in the community, did it not?

A. It did; everybody went to see it.

X 31. What newspaper or newspapers were published in Independence in 1861?

A. Well, the Conservative and the Bulletin, which, I think, was called the Guardian, if I mistake not; Rich and Jordan, I think, were the editors at the time of the Guardian.

X 32. For the purpose of refreshing your memory and ascertaining the fact inquired about, I now ask you to look at an affidavit made by you on the 23rd day of May, 1879, in which you use this language: "I don't think any of these wells were constructed here for two or three years after this well was put down and until 1865. Then they began putting them down." Is this statement correct,
according to your best recollection, or the statement made in
4792 your examination to-day, in which you state you think there
were some put down the year following?

4793 A. In 1861 was the 1st one I saw, and in '62 or '3 they put
down some others.

Cross-examin. rests.

Redirect:

Int. 1. In your cross-examination you stated that Mr. Woodward bought block 22, the one north of block 3, on which the well was made. Now, state whether that is correct; and, if not, what block did you mean that Mr. Woodward bought.

A. I meant west; I said north; I meant west; the block now owned by Z. Stout.

R. D. 2. State, now, who lived on block 22 at that time.

A. As near as I can remember, J. E. Trexler lived on block 22 at that time.

R. D. 3. You stated in your cross-examination that these strangers stopped at the White House; who kept that house at the time that well was put down?

4794 A. Kimball & Sherwood.

R. D. 4. By what name is that house now known?

A. The Merchants' Hotel.

R. D. 5. How many buildings were on this block 22 at the time you say this well was there?

A. I only think there was one, nearly opposite the well; I think there was another, a little brick or a little wooden one.

R. D. 6. At the time this well was there were there any buildings on block 4 west of where this well was?

A. My opinion is the little shanty was moved off.

R. D. 7. Was it on block 4 that this shanty was situated that you called an Irish shanty?

A. Yes.

Redirect rests.

Recross:

Int. 1. You stated in your redirect that J. E. Trexler lived directly opposite where the well was located on block 22; are you 4795 positive that — was not a blacksmith shop at or near the cor. at the time the well was put down or during the time it was there?

A. I said J. E. Trexler lived nearly opposite, north; I don't know but there was a blacksmith shop once nearly opposite, on the cor. My opinion is there was a blacksmith shop on the cor. at that time or near about that time.

Re-C. 2. Were you ever in this blacksmith shop and do you know the blacksmith?

A. Yes, I was in the shop and knew the blacksmith; his name was Kayes.

Re-C. 3. Has not this date when the well was put down been a matter of a good deal of inquiry during the last year or two? Has there not been a good deal of talk about it in your hearing, and have you not made considerable examination — conversed a good deal on that subject yourself within the last year or two?

4796 A. I have never heard a great deal of talk about it; have seen notices of drive-well meetings stuck up, but I never paid any attention to them, not to any extent, for I was not interested in it at all.

Re-C. 4. Do you mean to be understood that no one has conversed with you or interrogated you in reference to when the well was put down?

A. As a matter of course, it has been talked in my presence and I have talked about it, but no one tried to influence me one way or the other.

(Signed) S. P. McEWEN.

Subscribed in my presence and sworn to before me this 11th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4797 T. J. MARINUS, being produced, sworn, and examined on the part of the defense, deposes as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is T. J. Marinus; am 48 years old; —, Independence, Buchanan Co., Iowa; am a dealer in ice.

2. How long have you resided in Independence?

A. About 30 years.

3. What official position have you held in Buchanan Co., and when and how long have you held the same?

A. I was deputy clerk of the court 2 years—60 and '61; was county recorder 4 years; I think from '61 to '65.

4. Did you ever hear of a well being made by driving a tube into the ground and attaching a pump to it?

A. Yes, sir.

5. Did you go to see the well? And, if so, state where you
4798 found it. Give *to* location as near as you can.

A. I did see the well; it was on the west side of the river, at Independence, on the N. W. cor. of the block where the Presbyterian church is now situated on; don't remember the No. of the block.

6. Look at the plot here shown you and state whether it correctly represents the streets and blocks in the vicinity where the well was.

A. I should say it did.

7. On what block, as numbered on that plot, was the well situated?

A. On No. 3.

8. Describe this well, as to how it looked when you saw it.

A. There was a pipe there; I think it was iron; won't be certain; with a small pump attached to it.

9. Did you pump water out of this pump?

A. I did.

10. Did you see others use it?

A. Yes, sir.

11. How long do you remember of its remaining there?

4799 A. I don't know how long it remained there; I know I saw it there three to four weeks.

12. About how high was the pump from the ground?

A. The best of my recollection, it was from two to two and a half (feet).

13. What year was it you saw this there?

A. In 1861.

14. What data have you by which you fix the date?

A. From the fact that I stopped at the well or pump with some of the members of Co. "E," 5th Iowa Infantry Reg't, for the purpose of getting a drink.

15. Who was the capt. of that Co. and where was it enlisted?

A. Daniel S. Lee; enlisted in Independence, Iowa.

16. State, if you know, when that company left Independence, Iowa.

A. It was about the 1st day of July, 1861.

17. When was it that you saw this well, with reference to the time that that Co. left?

A. It was within a week previous to the departure of the company.

4800 18. Do you know of any other well being put down near the place where you saw this one you have described?

A. I don't recollect of any other being put down there; not at that time.

19. Do you know of any being put down there between that time and the year 1868?

A. I won't be positive as to the year; there was another well put on that block after that time.

20. State where that well was located, with reference to the location of the first.

A. It was located somewhere near where the Presbyterian church stands; east of where the other well stood and west of where the church stands.

Direct rests.

Cross-examination:

X Int. 1. What part of Independence did you reside in at the time you saw this well?

A. I lived then where I do now, on lot 2, block 10, in Stoughton & McClure's add., east side of the river.

X 2. What was the name of the soldier you say was with
4801 you when you say you saw this well?

A. A. B. Lewis was the name of one; Richard Whait; I can't recollect any others now.

X 3. Where were these drill grounds?

A. It was north of block 5, known at that time as the Empire House block.

X 4. Where did this company rendezvous; was it on the same block?

A. It was on the same block or near it; it was all open ground at that time.

X 5. State, if you please, the nearest house to this well that you have located; give the name of the occupants.

A. I think the nearest house to that well was on block 22; the house was on the west half of the block, near Main St. A man by the name J. E. Trexler lived in it.

X 6. Was there a blacksmith shop on the southwest cor. of block 22 at that time?

A. There was a shop there; I don't know what it was used for; there was an old building there; I don't know what it was used for.

X 7. Have you any recollection of there being a blacksmith shop there at any time?

A. Yes, sir.

4802 X 8. Are you positive there was one there at that time this well was there?

A. No, sir.

X 9. Do you know whether anybody resided on the N. E. cor. of block 7 at that time?

A. I can't say for certain whether there was or not.

X 10. What other event do you remember of with the same certainty that you do of the well-driving that year—that is to say, any event you are not interested —?

A. I don't know of anything.

X 11. Do you know the defendent in this case, Geo. Hovey?

A. I am somewhat acquainted with him.

X 12. Has he or Col. Lake talked with you within the last year or two in reference to the driven-well question, or in reference to the well you have located, or the date of the same, and the data by which you fix the date of putting down this well? Please answer carefully.

A. I never talked with Mr. Hovey about this well; neither did Mr. Hovey talk with me about it; Col. Lake did ask me, in regard to this well, if I recollected that there was such a well there, and how I knew it was there in 1861.

4803 X 13. Has there not been a good deal of excitement and discussion on the driven-well subject and a good deal of talk about the location of this well you have described within the last year or two?

A. I have heard considerable discussion in regard to driven wells; a man would have to shut up his ears if he didn't hear a good deal about it; I never had any conversation in regard to this well, except what I have testified to in regard to Col. Lake.

X 14. Do you know who made this well, or what kind of a well it is, of your own knowledge?

A. I don't know who made it; it was a well with a pipe sticking out of the ground with a pump on it.

Cross rests.

Redirect:

Int. 1. In your cross-examination you stated that you was not positive there was a blacksmith shop on the S. W. cor. of block 22, as shown by the plot, when this well was there. Now, state whether there was any building there at that time or not.

4804 A. There was a building there I believe.

Re-D. 2. State, if you know, how that building was occupied at the time you saw the well?

A. I don't know whether it was occupied or not.

Re-D. 3. Was Richard Whait, who you say was with you and enlisted as a soldier in Capt. Lee's Co., a relative of yours? And, if so, state what relation he was.

A. He was my brother-in-law.

Re-D. Q. 4. State whether he left Independence with Capt. Lee's Co.

A. He did.

Re-D. 5. Did the discussion and excitement about driven wells for the last year or two change your recollection in regard to the well which you say you saw in 1861?

A. No, sir; it did not.

(Signed) T. J. MARINUS.

Subscribed in my presence and sworn to before me this 12th day of M'ch, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4805 OLIVER MARQUETTE, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is Oliver Marquette; am 40 years of age; reside at Independence, Buchanan Co., Iowa; am a cabinet maker.

Int. 2. How long have you resided in Buchanan Co., Iowa?

A. It will be 23 years in April.

Int. 3. What has been your business since you resided in the county?

A. In the cabinet business principally; have worked some at the carpenter business when I first come in the county.

Int. 4. Whereabouts have you resided in Independence since you have lived here?

A. On the west side of the river.

Int. 5. At any time since you have lived in Independence did you notice a well, the construction of which attracted your attention?

A. Yes, sir; I noticed one.

Int. 6. Describe said well.

4806 A. It was called a driven well; I would not know how to describe it unless I called it a well; it was an iron pipe driven in the ground, and an iron pump attached to it.

7. State how high this pipe came up above the ground.

A. Oh, I think about even with the ground; then the pump was attached to it.

8. What was the size of the pipe, as near as you can remember?

A. Oh, an inch and a quarter or an inch and three-quarters—a half; it might have been two inches.

9. State whether there was a hole in the ground round the pipe; and, if so, how large.

A. There was none outside the pipe.

10. Whereabouts was this well located? Describe the place as near as you can.

A. On the west side of the river; it was all common; it was on the south side of Main St.; it was in the second street crossing Main St. west from the bridge.

11. Look at the plot here shown you and state whether this plot correctly represents the blocks and streets when this well was located.

Plot marked Exhibit "B" here shown the witness.

4807 A. I think it does.

12. Now, state — what block and street the well was located.

A. Near the N. W. cor. of block 3, or in Center street.

13. What year was it that you saw the well?

A. I could not tell exactly; think it was in 1860 or '61—somewhere along about that time. It is so long ago that I can scarcely remember. It might have been before.

14. Have you any data by which you fix the date of this well?

A. Nothing; any more than we were playing ball, and I think it was right after the hard times we had here — makes me think more about it.

15. What year was it we had the hard times here?

A. It commenced in 1858.

16. State, as nearly as you can, how long it was after 1858 that you saw this well.

4808 A. Well, it is a good while back to remember. It might have been two or three years.

17. Did you pump water at this well?

A. Yes, sir.

18. State whether you saw others get water there?

A. I did.

19. About how long did this well remain there?

A. It was not a great while; it might have been a couple of months or longer; I could not tell.

20. Did you know Dan'l S. Lee in his lifetime?

A. Yes, sir.

21. Did you know of his enlisting a company of men that went into the war of 1861 to 1865?

A. Yes; I did.

22. State when you saw this well, with reference to the time he enlisted that company?

A. It was just about the time, if I remember right.

Direct rests.

4809 Cross-examination:

X 1. Who has talked with you in reference to this examination, and what, if anything, has been said to you about testifying in this case?

A. This is the first I have heard of it, 5 or 10 months ago.

X 2. Do you mean to be understood that no one has said anything to you on the driven-well subject or about the well you have been testifying about?

A. Oh, I have heard it talked about, more or less, on the street, and I think I made an affidavit, about the same as I have to-day, before.

X 3. Who requested you to make this affidavit?

A. Jed. Lake came down and took it.

X 4. Is it not a fact that there has been a good deal of excitement about the driven well in this locality and very frequent discussions on that subject during the last year or two?

A. Oh, I think there has, but I was not interested and did not pay much attention to it.

X 5. You state that the well you have described had an iron tube that come even with the ground. How could you tell anything about the size of the pipe?

4810 A. I could see the end of it.

X 6. Was there not a pump on the end of it?

A. Yes, sir.

X 7. And did not the bottom of the pump extend considerably over the pipe where it was attached to it?

A. I don't remember. The pump was a curiosity at that time, and we all examined it and tested it.

X 8. Then you don't remember of seeing any pipe at all, do you?

A. Yes, sir.

X 9. If the pipe come even with the ground, and the flange at the bottom of the pump extended considerably over the top of the pipe, and you say you don't remember whether it did or not, how could you have seen the pipe?

A. Well, the pump, if I remember right, it screwed right on the end of the pipe that went into the ground.

X 10. Do you know who put down this well?

A. No; I don't know.

X 11. Where did you live at that time—what place?

A. On the N. W. cor. of Center and Willow streets, about
4811 two blocks north from where the well was located.

X 12. Did you pass by this well frequently?

A. Yes; pretty much every day.

X 13. Was there any building on or near the S. W. cor. of block 23?

A. Yes, sir; there was, I think; there was two on the block.

X 14. When was the one near the corner occupied?

A. As a dwelling at that time, and was afterwards turned into a blacksmith shop.

X 15. Do you know whether there was any one living on the N. E. cor. of block 7 while that well was there?

A. Yes, sir; a man by the name of Tyson.

X 16. What was his first name?

A. T. H. Tyson.

X 17. You were well acquainted with these localities and the improvements that then existed near this well, was you?

A. Yes, sir.

X 18. You spoke of, in your direct examination, in fixing the date of that well, *by* your playing ball. Were you in the habit of playing
ball at that time? And state what there is in particular con-
4812 nected with ball playing that leads you to fix the date of this
well by it.

A. I was one and we used go and drink out of the well when we got dry.

X 19. Where were you in the habit of playing ball and what kind of ball did you play? And state who played with you.

A. Just about on block 4, south side of Main St.; we played base ball generally; a great many different ones—Dick Thornton, John MacKenzie, Raker, Joe McGee; I think T. H. Tyson.

X 20. Was there any other kind of ball played there at that time?

A. I think there was; my kind was base ball.

X 21. About how frequently did you play?

A. Oh, we played two or three times a week; sometimes more, sometimes less.

X 22. What other kind of ball was played there during that time?

A. I think there was cricket ball—they called cricket. I never played the game in my life.

X 23. Was that game played there the same time you were playing?

A. No; not the same time.

X 24. About what time in the day did you usually play your games?

4813 A. In the afternoon.

X 25. Did this kind of well go into general use immediately after this one was put down?

A. It was the only one I ever saw; it was a number years after that before I saw them in general use.

X 26. I understand you in your testimony in the direct examination to state it was a good while ago and that you can't be certain as to the date within a year or two; that you think it was in '60 or '61. Will you swear positively that it was not as late as 1862?

A. I think it was in '60 or '61. I will swear positively it was not in 1862.

X 27. How long did the hard times last?

A. Oh, it lasted until the war commenced, in 1860.

X 28. Will you please state how you fix the date of the commencement and ending of hard times?

A. In '58 I went to St. Louis; that is about the time hard times commenced here; the commencement of the war times began to get better with me.

X 29. When was your attention first called to the date you

4814 have fixed in reference to the putting down of this well? I

mean now after the scenes connected with it have passed out of your mind, as such things usually do after that elapse of time.

A. Within the last year.

Cross-examination rests.

Redirect:

Int. 1. Was not cricket ball played on block 4, as shown by the plot, the same season that you played base ball there, but on different days?

A. It was.

Re-D. 2. Are you sure that T. H. Tyson lived on the N. E. cor. of block 7 when this well was there, or might he have moved away at that time?

A. I would not be positive that he lived in that house or not; I am pretty sure he lived there.

(Signed) O. MARQUETTE.

Subscribed in my presence and sworn to before me this 12th day of March, 1880.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

Adjourned until 7.30 o'clock p. m.

4815 7.30 P. M.

Met pursuant to adjourn-.

All the parties present.

STEPHEN M. MARQUETTE, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. Stephen M. Marquette is my name; am 50 years of age; reside in Buchanan Co., Iowa; am in the furniture business.

2. How long have you resided in Independence?

A. I came here in 1856, in the spring.

3. What has been your business since you lived in Independence?

A. About three years of the time I worked at carpenter and joiner business; the balance of the time I was in the cabinet business.

4. In what part of Independence have you lived most of the time?

A. On the north side of Main St., west side of the river.

5. Did you at any time observe a well on the west side of the river that attracted your attention on account of its peculiar construction?

4816 A. I did.

6. State where the well was located as near as you can.

A. It was on the south side of Main St., somewhere near where Mr. Goodin now lives.

7. Describe how this well looked.

A. It was a pipe driven in the ground, from the looks, with a pump attached to the end of it. It was one of these old-styled pumps attached to the end of it, with a pitcher pumps or cistern mug on it; pumps I should call it.

8. State whether there was any hole in the ground outside of the pipe.

A. There was not; it seemed to be driven in the ground solid.

9. Did you pump any water from this well or see others do it?

A. I pumped the water up. I think Thos. Tyson was with me one time; he pumped and I pumped to see how easy it pumped.

10. How long did this well stand there?

A. Think it stood there nearly all summer; don't know but it stood longer.

4817 11. Is there any prominent building on that block now; and, if so, what building?

A. The Presbyterian church.

12. On what part of the block was this well?

A. On the northwest cor.

13. What year was it that you saw this well?

A. I think it was in 1860 or '61; I think it was '60—either '60 or '61. I built a house in the country, and it was built while I was out there.

14. Is there any other data by which you can fix the date? If so, state.

A. I had contracted with a lady to build this house. Tyson tried to break up the contract, and he got the lady to come to me here and back out, and he was with her, and we went to see what progress we would make. I had a written contract, and, of course, I did not back out; then Tyson wanted her to make me give bail for the contract, and I told her I would give bail, and I also wanted her to give bail, that I would get my money when the job was done; and she was a stranger here and could not get bail and finally concluded to let the thing go, and it rather provoked Tyson a 4818 little. It was either in '60 or '61. It was either one of these two years. It was the next spring after I come back from St. Louis.

15. Do you know of Capt. D. S. Lee recruiting a company in Independence to go into the late war from '61 to '65?

A. Yes.

16. When was that you saw that well with reference to the time that Co. was being raised here?

A. I think it was before the company was raised here.

Direct rests.

Cross-examination:

X 1. Who has talked to you about your testifying in this case?

A. Well, there is no one in particular talked to me about it; some one asked me questions about it. When this drive-well business first got out I had said I had seen a well, and some one come to me and talked to me about it.

X 2. Who talked with you about the matter? And state particularly what was said.

A. Well, Mr. Lake spoke to me once, twice, and I think Mr. 4819 Hovey spoke to me once, maybe twice; they asked if I could tell near the time that I saw the well there; I first thought it was the time I had come back from St. Louis; then I thought of this time I was building a house; then I thought it was while I was building the house; the well was driven while I was away from home, and I saw it when I returned home, while building this house.

X 3. When did you go to St. Louis?

A. In 1859, I think; I went in the spring and came back in the fall of 1859.

X 4. Who suggested to you that it was while you were building this house, or that your first impression was not correct?

A. My brother and me was talking it over together; we batched; we were talking about building this house; we live together now.

X 5. What is this brother's name?

A. O. Marquette.

X 6. Then yourself and brother, after consulting together and talking the matter over, fixed the dates as you have given them as the dates to testify to in this case?

A. Yes, sir.

4820 X 7. Has there not been a good deal of excitement in this locality about the driven wells, and has there not been a good deal of discussion on this subject within the last year or two?

A. Well, I presume there has; I could not say there has been a great deal; there has been some in our place; we don't go out much, and we only hear what comes in; there has been some excitement about driven wells.

X 8. Have you heard it talked that it was proposed to beat the "driven-well patent" by fixing the date—putting down of this well in 1860 or '61?

A. Well, I have heard it spoken of two or three times; I don't know as any more; perhaps more.

X 9. Were you well acquainted with the inhabitants and residences on the west side of the river, near where this well was located?

A. I was, sir.

X 10. Who lived directly opposite, across Main St., on the block north from this well?

A. I lived nearly opposite before the well was put down; when the well was put in Trexler lived in one house; I think Gifford
lived in the other; really I don't think any one lived in the
4821 house directly opposite; it was an old rickety thing.

X 11. Was there a blacksmith shop there at that time on that cor., or near it, when the well was put down, or during the time the well was there?

A. I don't remember; it might have been there; the old house was torn down and a new one built.

X 12. Who lived on the N. E. cor. of block 7 at that time?

A. Well, I don't remember who did live in that house.

X 13. How often did you pass this pump while it was there?

A. I could not tell; quite a number of times.

X 14. How wide is Main St. at that time?

A. I should think it was 4 or 5 rods.

X 15. What was the lady's name for whom you built the house, and where was the house situated?

A. Mrs. Talbot; she afterwards married Bryan; the house was right south of Independence.

X 16. In your direct examination you say you think it was '60
or '61 that the well was put there; that you are certain it was one
of these two years; that it was the spring after you come
4822 back from St. Louis. Then if you went to St. Louis in the
spring of '59 and come back in the fall of '59, you are positive the well was put down in the spring of 1860, are you not?

A. If my memory serves me right, the pump was taken up and *and* put back again; I could not be positive; the pump was taken up in the winter of '60 and put back in the spring of '61.

X 17. Well, then, you are positive that the well was put down in the spring of 1860, are you not?

A. Yes, sir; as near as I can place the date.

X 18. Then I understand you to state that the well was put in in the spring of '60, and that in the winter of that year the pump was taken off and put back again on the same pipe in the spring of 1861?

A. Could not tell whether it was the same pipe or not; that is my memory; am not positive it was put back in 1861, but my memory is that it was taken up and put back in the spring of '61.

X 19. Then you don't depend much on this contract and house building in the fixing of the date of putting this 4823 well down, do you?

A. I think I am correct on the house in 1860.

X 20. Now, is it not a fact that its being so long ago, so many important events occurring between now and that time, not being interested in this well or anything connected with it at that time, and hearing the matter discussed at this late day with reference to the facts necessary to the defeating of this drive-well patent, that it is barely possible that you may be mistaken about the year or years that you have mentioned, and that the well might *here* been put down in the spring of 1862?

A. I don't think but that the well was put down in 1860; I think it not possible that it was put down in 1862.

X 21. Will you swear now positively that this well was not put down in 1862, in the spring?

A. I think it was not; I think, sir, I can be positive on that.

Adjourned until Saturday, M'ch 13th, A. D. 1880, at 8.30 a. m.

4824 Counsel for complainants now requests the witness not to consult anybody during the adjournment as to what he shall swear to when he again comes on the stand.

Met pursuant to adjourned, Saturday, M'ch 13, A. D. 1880, at 9 o'clock a. m.

All parties present.

In the morning the witness says that he desires to consider his answer to cross-interrogatory No. 21 that says that he is not positive that it was put down in the spring of 1862, but thinks it was put down in 1860 or 1861.

X 22. Did this kind of well that you have described go into general use directly after the well was put down in this locality?

A. No, sir; not that I know of.

X 23. How soon after this well was put down do you know of another one having been put down in this locality?

A. The next was put down when they built the Presbyterian church, somewhere between 1862 and 1866.

4825 X 24. When was the next one put down and what date was it, in reference to the building of the Presbyterian church?

A. It was a little east of where the first one was put down; it might have been 6, 8, or 10 rods east. It was about the time the Presbyterian church was built; they put it down for the purpose of getting water to build the church.

X 25. That, then, is the next well that you remember as having been put down after the one you described on the N. W. cor. of block 3, was it?

A. Yes, sir.

Cross-examination rests.

Redirect:

Int. 1. Did Mr. Hovey or Mr. Lake, in talking with you about the well, say anything about the house you built for Mrs. Talbot or make any suggestion that led to that? If so, state what they said.

A. There was nothing of the kind said by either of them.

4826 2. Was there anything said by either of these persons that
you was desired or expected to state anything different than
what you remembered without any suggestion from anybody?

A. There was not.

3. Has the talk or excitement changed your recollection in regard to the well in any manner?

A. No, sir.

4. You stated in your cross-examination, in answer to int'g.s 18, that you had heard it discussed that it was necessary to establish this well as having been put down in 1860 or 1861, in order to defeat the drive-well patent. Now, state whether anybody stated that they expected to prove in regard to this well anything different than what actually existed; and, if so, who stated it?

A. There is nothing that I can remember of; in fact, I don't
4827 know the date they claim the patent on the drive well.

5. Did you not hear of driven wells being put down in Buchanan Co. after you saw this first well and before the time the Presbyterian church was built?

A. I did, sir.

6. State, then, what you intended by your answer to cross-interrogatory 25.

A. I supposed he me-nt in this town when he asked the question.

Redirect rests.

Recross-examination:

Int. 1. You say that you have known of wells having *being* put
down in Buchanan Co. between the time the first well you have
located was put down and the one that was put down to use
4828 in the building of the Presbyterian church. Now, state when
and where you know of any others having been put down
between the time the first one was located and the one at the Presbyterian church.

A. I don't remember personally; I can't remember just now; I think that is all.

2. Then you are not certain that you ever heard of any being put down between the date of the 1st one and the one at the Presbyterian church?

A. Yes; I am certain that I heard it.

3. Then, if you are certain, state about when you heard it; who told you where the well was located?

A. Well, I could not fix the date, but it was not shortly after the
first, but between that time and the time the Presbyterian
4829 church was built; I can't remember the parties' names; it
was common talk in the town; somewhere about the county
here; I could not tell where.

4. Then this rumor you heard about the putting down of this subsequent well or wells which you have just referred to was probably within a year or two prior to the time the Presbyterian church was built, was it not?

A. Well, I have heard all along, from the time the first well was put down up to the year 1879, of wells being put down.

5. Will you swear that you heard of any being put down in 1862?

A. I can't say positively that I did in 1862.

6. Will you swear positively that you knew of any or heard of any as early as 1863?

A. Yes, sir.

7. Now, state where this well was that you heard of in 1863; who told you of it? Let you swear positively.

4830 A. I could not state or locate the places or give the names, as it was quite common conversation in the town about these drive wells being put in, except the one at the church here.

8. What is there, then, that you recollect in connection with this putting down of wells in 1863 that enables you to swear positively that those were driven wells put down in 1863?

A. Simply the excitement that were about drive wells in 1863.

9. Was there any excitement about these wells in 1863?

A. Nothing particularly, more than their being put in here and around.

10. I understand you to state in your previous answer that you can't give any information in regard to the putting down of these wells in 1863. Is that true?

A. No more than what I have heard spoken of.

11. What did you hear spoken of?

4831 A. In regard to these wells, I could not remember any names; I could place any one except the time Mr. Tyson was with me at the 1st well.

12. Then all you can remember distinctly about these wells is what you remember about the 1st one you saw and the one at the Presbyterian church, and all the rest is a general rumor, is it not?

A. Well, I think it was.

(Signed) S. M. MARQUETTE.

Subscribed and sworn to before me and in my presence this 13th of M'ch, 1880.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

4832 W. H. H. MORSE, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is W. H. H. Morse; am 39 years old; reside in Independence, Buchanan Co.; am a merchant.

2. How long have you lived in Buchanan Co.?

A. Since 1853.

3. Did you ever hear of a driven well?

A. I have.

4. State, as nearly as you can, when you first heard of such a well—that is, in what year.

A. I heard of and knew of a well being put down on the west side of the river; the best of my recollection, it was in '60 or '61.

5. Whereabouts was that well put down? Give the location, as near as you can.

A. My recollection is it was west from the Presbyterian church, on the same block; on or near the N. W. cor. of the block.

4833 6. Do you know of a cricket club existing in Independence about from 1858 to 1861; and, if so, was you a member of the club?

A. I do; and was a member of the club.

7. Where did that club have its grounds for playing cricket?

A. It was on the grounds now owned by Z. Stout. It was the block directly west of the block on which the Presbyterian church is situated.

8. When was it that you saw that well, with reference to the time this cricket club occupied these grounds?

—. Why, I remember of seeing the well when we used to play cricket there.

9. Did you ever pump water from this well or see others do it? And, if so, state when and how often.

A. I don't remember of ever pumping water myself. I have seen water pumped out of that well.

10. Describe the well; tell how it appeared.

A. It was an iron pump on the top of the ground, as near as I can describe it.

11. What was the pump attached to?

4834 A. It was attached to an iron pipe run into the ground.

12. About how high above the ground did this pipe come?

A. Can't say positive about that; the pump stood high enough so you could pump with ease.

13. State whether there was any hole in the ground outside of this tube.

A. That I cannot remember.

14. State whether there was any curb around this pump—anything to hold it up except the tube.

A. I think there was not; won't be positive.

15. Do you know of D. S. Lee recruiting a company at Independence to go into the late war—'61–'65?

A. I do.

16. Do you know when he left Independence?

A. I think it was 1861.

17. State whether you went away with them at the time; and, if so, in what capacity and how far you went.

A. I did; I belonged to the band; I went as far as Burlington, Iowa.

18. How long was you gone?

A. About 3 or 4 days, if I remember right.

4835 19. State whether after you returned from that trip you played cricket on the block west of where the Presbyterian church now stands.

A. I would not be positive whether I did or not; I can't remember.

20. State when it was you saw this well, with reference to the time that Capt. Lee's Co. left here and went to Burlington.

A. My recollection is that it was before we went to Burlington that we played cricket and that well was there.

21. Do you recollect of playing cricket after the time you returned from Burlington when you went there, in the same year?

A. I can't remember whether we did or not.

22. Do you know of any other well being put down near the same place since that time?

A. I knew of one on the property where Z. Stout lives put down since that time; I don't know who put it down; it was since that time.

23. When was this last well put down?

A. I don't remember the year; it was when Woodward built his house there.

Direct rests.

4836 Cross-examination:

X Int. 1. Has there not been a good deal of *of* excitement within the last year or two on this driven-well question, and has there not been public meetings held in this locality and a good deal of discussion on the streets and in the stores about the opposition to the collection of royalties on driven wells?

A. I have heard a good deal of talk about it in my store or place of business, and as to public meetings I have never been to one. I have not been on the streets to hear it talked about.

X 2. Has there not been a good deal of excitement in this locality on the driven-well question within the last year or two?

A. As I have said before, I heard a good deal of talk about it in the store.

X 3. Do you know whether or not there has been a good deal of excitement on the driven well in this locality the last year or two?

A. I suppose there has been.

X 4. Did you play cricket on the grounds you have referred to during the years 1859–'60?

A. My best recollection is I did.

4837 X 5. Was there not cricket played by the club to which you belonged or by other clubs or party in 1862?

A. I don't remember.

X 6. Did you see the pipe to this well you have described?

A. I did—that is, saw it on the top of the ground, where the pump was fastened on. I could not testify as to the exact size; I never measured it.

X 7. When was the band organized that you say you went to Burlington with?

A. I think about '58, as near as I can remember. I don't remember the year when we did disband.

X 8. Please state about when this Woodward House was built, where you say this street well was put down, after the 1st well. About how many years after the 1st well was put down was this one put down?

A. I think about 7 or 8 years after I saw the 1st one.

X 9. Who lived nearest to where this 1st well was put down at that time?

A. Mr. Sourbeer lived in a house—the nearest I can remember. Mr. Sourbeer—still there was a house near this, but I don't remember who lived there.

X 10. Was there a blacksmith shop, north, directly across Main St.?

4838 A. There was one there afterwards; I am not positive whether it was there at that time.

X 11. Did this kind of well go into general use in Independence directly after this well was put down?

A. It did awhile after; I could not tell how long.

X 12. Did you know of any well being put down of that kind after the 1st one until the one put down by Z. Stout that you have testified about?

A. That's about the next I remember about.

X 13. Who has talked with you about the date of this well or on the subject-matter of what you have testified within the last year or two? And state what was said.

A. Col. Lake asked me if I remembered the date when that well was put in; he is the only one who ever talked with me about it that I remember of.

X 14. Have you not heard that it was necessary to establish the date of this well in 1861 or prior in order to beat Green's patent?

A. Don't remember of having heard anything of the kind.

4838½ X 15. You sympathize with the opposition to *to* the payment of royalties in this community, do you not?

A. I do; because I don't think it right.

Cross-examination rests.

Redirect examination:

1. Are you not one of the parties who has been sued for royalty on a Green well?

A. I am.

Redirect rests.

Recross:

1. Then you are interested in the event of the suit, are you not?

A. I suppose I am.

(Signed) W. H. H. MORSE.

4839 1.30 P. M.

Met pursuant to adjournment.

All parties present.

M. B. TIMS, being produced, sworn, and examined, testified as follows:

Int. 1. What is your name, age, place of residence, and occupation?

A. My name is M. B. Tims; am over 50 years of age; reside in Independence, Buchanan Co., Iowa; am a clerk in a lumber office.

2. How long have you lived in Buchanan Co.?

A. I came here in the fall of 1854; have been here nearly ever since.

3. Did you know D. S. Lee in his lifetime?

A. I did.

4. Did you know of his raising a company here for the late war of 1861 to 1865?

A. I believe I did know that he did.

5. Did you at any time see a well in Independence that attracted your attention by its peculiar construction?

A. I did.

6. State where it was located. Give the block, as near as you can.

A. It was on the block the Presbyterian church is on, near the northwest corner.

4840 7. Describe what you saw of this well.

A. Well, I saw the pump, and that is all I know of it. I did not see it put down; stopped there and drank. I saw them pump water out of it.

8. What kind of a pump was it?

A. I think it was an iron pump.

9. What was this pump attached to?

A. The man that was there said it was an iron stalk, an iron pipe.

10. Did you see anything below the pump and between that and the ground; if so, what?

A. I don't think I saw anything below the pump.

11. Were the men there who had this pump in charge when you were there?

A. I don't know whether they were the men who put it down or not. There were men there, but whether they were the ones that put it down I could not say.

12. Did these men that were there say how it was put down; and, if so, what did they say?

A. I don't remember that they said anything about it then.

4841 13. Did any one at or about that time tell you how the well was made? If so, state what they said.

A. They told me that it was put down by driving a pipe, but I don't remember who it was.

14. How did the well appear to have been put down?

A. Well, it appeared, as they stated, to have been drove down.

15. How long did the well remain there, as near as you recollect?

A. Well, it might not have been there a month and it might have been there a year. It was there a number of days, and after that I was not over there much.

16. Did you see any one use this well more than once?

A. Yes; I saw it used two or three times at least.

17. State whether it furnished plenty of water each time you saw it used.

A. It did.

18. State now what year it was that you saw this well—that is, as near as you can recollect.

A. I have no memorandum of these dates, but I should think it was '61 or '62, to the best of my knowledge.

Cross-examination waived.

(Signed) M. B. TIMS.

4842 Subscribed and sworn to before me by the above-named affiant this 13th day of M'ch, 1880.

[SEAL.] (S'g'd) FRANK JENNINGS.
Notary Public.

Adjourned until Monday, the 15th day of March, A. D. 1880, at 9.30 o'clock a. m.

4843 Met pursuant to adjournment on Monday, March 15, A. D. 1880, at 10 o'clock a. m.

All the parties present.

E. W. PURDY, being produced, sworn, and examined on the part of the defence, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is E. W. Purdy; am 50 years of age; reside in Independence, Buchanan Co., Iowa; am a farmer.

2. How long have you resided in Buchanan Co., Iowa?

A. Since July, 1856.

3. What has been your business most of the time since residing in Independence?

A. Hotel-keeping most of the time.

4. Were you ever engaged in making wells? If so, state when and where.

A. I was engaged in the well business in the fall of '49 and '50, at Milwaukee, Wisconsin.

5. About how many wells did you make during the time you were engaged in the business?

A. I could not say how many. I was engaged in — that fall and next spring and summer. Somewhere about 15 or 20.

4844 6. Describe the method you used in making these wells and also the operations.

A. Well, they were made by rods, couple- together, 16 feet long, the end of it in the shape of a drill. The size of the rod was, I think, about 2 inches in diameter. Attached to it was a rope running over a gin pole, perhaps 25 feet high, attached to a break; on the opposite side two — worked on a treadle. We had wood rods with iron

couplings to fasten together as they went down. They were the same length. This rod was managed by a man who had hold of it, shifting, displacing the earth as it went down. Then we followed this down with tubing about 4 inches in diameter and the section-, of about 2 feet long, riveted together as we progressed with the work. I should have stated that the end of this drill was in bit form about 4 inches across the face of the rod. The tubing had to be driven down as a general thing where there was hard substance—clay or something of the kind. Whenever we came in contact with quicksand we had a long bucket made of *steel* iron, with a valve in the bottom and a rope attached to one end of it, smaller than the well tube, that we let down to draw out by suction the sand. By shaking the bucket the valve in the bottom of the bucket would
4845 fill with sand, at the same time forcing the outer tube down.

Our manner of getting it down was with a sledge, placing a block on the top of the pipe and driving with a sledge.

7. What was done with the earth when you did not strike quicksand?

A. It was displaced, shoved to one side, the sand, as making a hole in the ground without taking the earth out. We never took anything out, except quicksand.

8. How close was the earth to the outside of the tube that you put down?

A. As close as it well could be, so that it required a good deal of force to drive the tube.

9. How deep do you now remember of having made wells of that kind?

A. The deepest that I remember of was over a hundred feet; usually from 40 to 60 feet.

10. State whether or not these wells were productive and furnished a supply of water.

A. They were, most of them.

11. State how high the water came up in them.

A. There were a few of them that were running fountains, overflowing; the majority of them we had to put on a pump to
4846 get the water. In most all instances the water came near the
surface, so there was no trouble to get the water with a pump attached to the top.

12. State whether in any of these wells that overflowed you struck quicksand before finding the water.

A. I think not.

13. How deep were those wells that overflowed?

A. Usually from 40 to 50 feet, I think.

14. For what purpose was these wells used?

A. For family use—drinking, cooking, &c., and was considered the best of water.

15. Since you have lived in Iowa have you seen any wells made in a similar manner?

A. Somewhat similar, but different; they use a different pipe, and some instances they would bore it, and in some drive it down and displace the earth, as I used to.

16. State whether the displacement of the earth by driving the tube into the ground was the same as the method you used by driving in the tube into the ground.

A. The difference, I think, is I have seen them drive the tube to displace the earth—the tube that formed the well, while I displace it with the rod before putting in the tube.

4847 17. How did you displace it with this rod—that is, the manner of driving it?

A. The rope, attached to a rod, worked over a gin pole with a pulley on top down on the opposite and worked to a stroke of about a foot; it would raise that rod about a foot every time you raised and put down the break. The rod was so attached as it went down we would let out on the rope. When one rod was down to the surface of the earth we coupled another one.

18. State whether the rod displaced the earth by raising it and letting it fall with the break.

A. It did.

19. Was the effect on the earth any different than by driving the tube? If so, state what the difference was.

A. I could see no difference.

20. Where was the first well located that you saw in Iowa made similar to this?

4848 A. On the west side of the river; I could not give the lot, but it was the well spoken of here. It was this side of Mr. Stout's, on the cor. on the south side of the street.

21. Is there any prominent building now on the block where you saw that well?

A. Yes; the Presbyterian church.

22. On what part of the block, where the Presbyterian church now is, was it?

A. On the west part of the block.

23. Describe the well; tell how it looked.

A. It was said to be a drive well; I did not see it put down; people were pumping at it and getting water from it.

24. What kind of a pump was there?

A. A common suction pump; one of these iron pumps.

25. State whether you could see anything below the pump; if so, what?

A. I could see the tubing, if my memory serves me right, up above the surface, to which the pump was attached.

26. State whether there was any hole in the ground outside of the tubing.

A. There was none.

27. Did you pump water at this well yourself; if so, how many times?

A. Don't remember that I did at that one.

28. Did you see others pump water there; if so, how many times?

4849 A. I did; how many times I don't remember *how many times;* but I frequently saw people pump there as I would be passing.

29. How long did this well remain there?
A. Don't remember; could not give any idea.

Direct rests.

Cross-examination:

X Int. 1. Who were you engaged with in the well business at Milwaukee, Wis., in 1849 and '50?
A. A man by the name of A. J. Luckey.
X 2. How long did you reside in Milwaukee, Wis.?
A. About a year.
X 3. Were you engaged in any other business while you resided in Milwaukee, Wis.?
A. Not any.
X 4. Were you engaged in this business as one of the partners or simply as a hired hand?
A. Partner.
4850 X 5. Please locate the first well you made in Milwaukee, and state who you made it for.
A. I think it was a man named Hawkins that kept a hotel in Walker street, Milwaukee, Wis.
X 6. Now, please locate all these wells in the order in which they were made, and give the names of the owners as near as you can.
A. I could not locate them all or half of them. I locate one at Blossoni's brewery, up in Kilbourn town. The next one was on the Bluff, for a man named Kramer, a hardware merchant, and, I think, since then was an editor of a paper. The next one was another German brewery, in the west side of the city; I don't remember the name; I recollect by this: he had dug for water 30 feet; well, 10 feet across got no water. In it he wanted us to put down a drive well, and commence in the bottom of it. We went down, I think, 70 feet from the bottom of the well he had already dug; got an abundant supply of water for brewery purpose. The water came up into the part he had dug and made a reservoir with an abundant supply of water. We put down another at a hotel; I can't recollect the house. It was on Water street, on the east side of the river. The name has passed from my mind now. I think
4851 another on Walker's point, a hotel by the name of Barr's Exchange; another on the east side of Water street, opposite Dinsmore's warehouse, on the cor. of the street. There are many others; I can't locate the streets.
X 7. What kind of wells were those that you made; that is to say, what were they called?
A. They were called artesian wells at that time.
X 8. How many of these wells had pumps connected with them?
A. All of them, with a very few exceptions.
X 9. Please describe these pumps that were used particularly.
A. A common iron pump, lead pipe attached.
X 10. Where did this lead pipe lead to?
A. It passed into the tubing of the well to the water below.

X 11. In any of these wells that you have made in Milwaukee, as you have described, was the pump attached to the 4-inch tube that you forced into the ground and the well thus formed?

A. It was not directly.

X 12. Then in all cases where a pump was used there was a separate pipe other than the tube you forced into the ground, which you say was 4-inches in diameter, attached to the pump and extending down into this 4-inch tube to the water below?

4852 A. Yes.

X 13. You say in making these wells in all cases where there was no quicksand everything was displaced laterally and nothing removed upward or out of the well. Now, was this true when you found rock or gravel formation?

A. When we came in contact with a stone or rock that we could not displace we moved the machine and pricked again—commenced anew.

X 14. Now, do I understand you to state that, in your opinion, a well made by driving or forcing a hollow tube into the ground and attaching a pump with an air-tight connection to the top of this tube that that would be the same kind of a well as the wells you made in Milwaukee, in which you placed a pump?

A. They are not the same.

X 15. In what respect do they differ?

A. The pump in the Milwaukee well was not attached air-tight to the tubing of the well.

Cross-examination rests.

4853 Redirect examination:

Int. 1. In your cross-examination, in locating these wells, you stated that one was located in Kilbourn town. Now, state whether that is a part of the city of Milwaukee.

A. It is.

2. The one you say you put down for Mr. Kramer—what was his business at the time you put down the well?

A. Hardware merchant.

3. Why were these wells called artesian wells at that time?

A. From the fact that they would overflow—from the fact that where the fountain was — higher than the surface where the well was made.

(Signed) E. W. PURDY.

Subscribed and sworn to before me and in my presence this — day of ——, A. D. 1880.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

4854 Adjourned till 1.30 p. m. for dinner.

1.30 P. M.

Met pursuant to adjournment.

J. J. TRAVIS, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is J. J. Travis; am in my 46th year; Independence, Iowa; am a farmer and wood dealer.

2. How long have you resided in Buchanan Co., Iowa?

A. Since the fall of 1851.

3. Did you ever hear of a drive well?

A. I did.

4. Did you go to see the well?

A. I did.

5. Where did you find it? Give its location, as nearly as you can.

A. It was on the west side of the river, west of where the Presbyterian church now stands; I should say from ten to 20 rods west of
the Presbyterian church; it was all common then; I could
4855 not give the exact distance; I would not swear to five, ten, or
20 rods; it was not more than 5 rods.

6. Describe this well, as to how it looked.

A. Well, all I could see of it was a hollow iron tube that went into the ground and a kind of a pitcher-mouthed pump attached to it; something of that kind.

7. How high was the tube from the ground—that is, from the top of the — to the bottom of the pump?

A. According to the best of my recollection it was about two feet; it might have been more and it might have been less.

8. State whether there was any hole in the ground outside of the tube.

Ans. None that I saw.

9. How did the ground appear as to being close to the tube?

A. It appeared to be solid round the tube.

10. State whether you used the well to pump water from it or saw others use it.

A. I can't say positive whether I pumped water from it myself or not; but saw water pumped from it either by myself or somebody else.

11. How many times to you remember of seeing this well?
4856 A. I cannot say positive; should think two or three times;
it was a good while ago; it is a good while to remember these things.

12. When was it—that is, what year was it—you saw this well?

A. It was in 1861.

13. What time in the year?

A. Either June or July.

14. Have you any data by which you fix the time? If so, state what it is.

A. I fix it by being the 1st year of the war of the rebellion, when Lee's company was raised here; I think once when I was there the soldiers were drilling there on the common; also it was the year that I was farming part of the Bright farm, the same year; the only year I have resided out of town since.

15. What year did you farm part of the Bright farm?

A. 1861.

Direct rests.

Cross-examination:

X 1. You say it was a pitcher-mouthed iron pump that you saw. Do you mean that it was a patented pitcher pump that was on the tube?

A. I don't know whether it was a patented pump or not; there are different kinds of patented pumps; it was a different style of pump from what they use in our days; it was an open-mouthed pump, to the best of my recollection.

4857 X 2. Where did you reside at the time you saw this pump? Give the location of your residence.

A. About three miles northwest from town.

X 3. Did you drill with this company of soldiers that you refer to?

A. I did not.

X 4. Have you not seen other companies drilling on the same grounds?

A. I did not.

X 5. Was there more than one company raised in this town during the 1st year or two of the war?

A. There was.

X 6. Where did the other soldiers drill?

A. I don't remember that I ever saw them drill anywhere, except in the streets and up near the court-house.

X 7. Did you ever see them drill on the streets on the west side of the river?

A. I don't think I did.

X 8. Are you now positive that you neve- saw any other company drill on that square or on the west side of the river?

A. According to my best recollection, I am.

X 9. Are you quite positive that you saw this 1st company you have named drill on that common?

A. I am.

4858 X 10. Is it not a fact that during the 1st two years of the war there were volunteers being raised in the town more or less during the time?

A. It is.

X 11. When was the flouring mill built which stands on the south side of Main St., at the end of the bridge, on the west side of the river; the one that stands there now?

A. I was here all the time, but don't remember.

X 12. When was the Presbyterian church built, on block 3?

A. I could not say, but should say about ten years ago; might be more and it might be less.

X 13. You say you were farming in 1861; was that a very wet or very dry season?

A. It was what I should call a dry season until about fall. There was a wet spell about harvest time or right away after.

X 14. Was the summer of 1862 a very wet or very dry season?

A. The spring of 1862 was more backward than it was in 1861; more bad weather. The balance of the season was about the same as '61, is my best recollection.

X 15. How long did you farm the Bright farm?

A. Only one year.

X 16. How came your attention to be called to this well?

4859 A. Well, I can't remember whether I was told about it on the street or whether I was on the west side of the river and saw it.

X 17. What is there connected with the well that impressed you so that you remember it so distinctly?

A. I think at the time I was there some person or persons told me the manner in which it was put down, and I know I thought at the time it was a pretty easy way of getting a well.

X 18. Do you remember what was said to you or who said to you what was said?

A. I don't remember who said it, but from what was said they described the manner of putting it down, as by driving the tube into the ground.

X 19. Did that kind of a well go into general use directly after this one was made?

A. Not to my knowledge directly.

X 20. When did you know of another well of that kind being put down?

A. I don't remember of any others for eight to twelve years after that.

X 21. What was the next company raised after Lee's company?

A. I don't remember whether it was Capt. Miller's or Capt. Howard's.

4860 X 22. Has there been any suit commenced against you claiming a royalty on driven well-?

A. No, sir.

X 23. Who lived nearest this well at the time you saw it?

A. There were several who lived about the same distance from it. Among the rest was S. S. Allen.

X 24. Where did S. S. Allen live at that time?

A. I should say in the N. W. part of block 7, as shown by the plot marked "B" of def't's.

X 25. Do you know where D. S. Deering lived at the time you saw this well?

A. According to the best of my recollection, he lived in the N. E. cor. of the same block.

X 26. Who lived on block 22, directly opposite?

A. There was a blacksmith shop on that corner, if I recollect right, and a man by the name of Kayis lived in a house on the same lot.

X 27. Was this west side laid out and plotted at that time? And, if so, state what you know about it.

A. It was, and for ten years before that.

X 28. Do you know who laid it out or helped to lay it out?

A. It was owned and laid out by Stoughton and McCluis.

X 29. Where did T. H. Tyson live at that time?

4861 A. According to the best of my recollection, he lived on the southwest cor. of block 2.

X 30. Has there not been a good deal of excitement in this community on the driven-well question, and has there not been a good deal of discussion and a good deal of bitterness expressed in regard to the collection of royalties within the last year or two?

A. Well, I must say I have heard a good deal said about it, but I did not pay any attention to it, as it did not concern me.

X 31. Have you not heard a good deal said about this well that you have located and about the necessity of establishing its construction in 1861 in order to defeat Green's patent?

A. Well, I don't know how to answer that. I only heard that that well was put down before Green's patent, but I don't know when Green's patent [was issued] (?). I don't want to be understood as changing the date of the putting down of that well in 1861. I only want to be understood as not knowing when Green's patent was issued.

Cross rests.

Redirect:

Int. 1. In your cross-examination you have stated that when you were at this well some person told you how it was put down. Now, state what was said about how it was put down.

4862 A. It was told to me that the tube was driven into the ground and some kind of a steel point or iron point put onto the tube to force the earth away.

2. Are you certain that Kayis had a blacksmith shop on the cor. north of where this well was at the time, or might he not come there later than that?

A. I can't say positive in relation to that that his building was the first that was built on that lot, and they might have been built since 1861.

3. Did you know J. E. Trexler at the time you saw this well?

A. I think I did; possibly before.

4. Do you know where he lived at that time? And, if so, state.

A. I think he lived in the block pointing on Main St.; I think block 22. I can't positively locate it.

5. Has this excitement or talk about drive wells affected your recollection of the well you first saw there?

A. I don't think it has.

6. Have you any personal or pecuniary interest in this suit in any way?

A. Not any whatever.

4863 Recross:

R. X Int. 1. Is it your best recollection that Kayis lived on that lot across from the well?

A. Since that question was asked me in relation to Trexler my mind wavers in relation to whether Kayis lived there or not in 1861.

(Signed) J. J. TRAVIS.

Subscribed in my presence and sworn to before me this 16th day of March, A. D. 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4864 Adjourned until Tuesday, March 16th, A. D. 1880, at 9 o'c'k a. m.

A. LITTLEJOHN, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is Abraham Littlejohn; am 46 years of age; reside in Independence, Buchanan Co., Iowa; am a shoemaker.

2. Whereabouts in Independence do you live?

A. In the northwestern part of the city, on the west side of the river.

3. How far do you live from the river?

A. About 10 rods or 12 rods when the river is full.

4. Have you a well at your place; and, if so, how deep is it?

A. It is 26 feet.

5. Have you had it deepened since you lived there; and, if so, how deep was it before that?

A. It was 21 feet originally, and then I had it put down 5 feet.

6. What kind of soil is it where this well is?

A. Sand and gravel.

7. Is there any dam across the river at Independence? And, if so, state where it is, with reference to your place, and state how it affects the water at your place.

4865 A. There is a dam; it is about 4 or 4½ blocks south of my place. Well, when I had the well put down, when the water was let off the dam to repair the mill, the well went dry—that is, when it was 21 feet.

8. How was the water in the well when the dam was full?

A. Plenty.

9. State whether the high water in the river affected the water in your well; and, if so, how.

A. I can't notice any difference; there is always plenty of water, and it is good.

10. When your well was only down 21 feet, and the dam was full of water, how was the supply of water in the well?

A. There was plenty of water when the dam was full.

11. How is the bottom of your well now, with reference to the bed of the river, as to depth?

A. Well, I should think the bottom of the well is down as low, I judge, as the bed of the river.

4866 12. About how far is it from the well to the water in the river when the water is out of the dam?

A. About 12 rods.

13. What is the character of the soil from the well to the river at the nearest point?

A. Sandy.

Direct rests.

X 1. What conversation have you had with any one about your testimony to be given in this case?

4867 A. I have had no conversation with anybody but Mr. Lake, and I have given in testimony all the conversation I had with Mr. Lake.

X 2. There is, then, nothing in your testimony except the conversation you had with Mr. Lake?

A. That is all.

X 3. What kind of a well is this of yours?

A. It's a Hovey iron well.

X 4. How is it made?

A. It's an iron pipe.

X 5. Was the pipe driven into the ground?

A. No, sir; bored.

X 6. Were you present during the time it was being made?

A. Part of the time.

X 7. At the time you had your well deepened who did that?

A. Well, right here needs a little explanation; I have had the well taken up and moved about 16 feet to the north; Mr. Hovey owned it and deepened it.

X 8. Do you know how deep he bored either time?

A. While I was there, from 8 to 10 feet.

X 9. How did he get the pipe down the rest of the way?

A. I suppose he bored it, but I was not there in the afternoon.

X 10. What is the number of the lot and block on which you live?

A. Either on lot 9 or 10, block 29, Stoughton and McCluis' 2nd add. to Independence.

X 11. When was it you had this well deepened or changed?

4868 A. I think it was in 1872, but I would not be positive about that.

X 12. Was it a very wet or dry season?

A. Don't recollect.

X 13. You say the soil is sandy from the well to the bed of the river. How do you know that; what is your means of knowledge?

A. I know it is sandy 7 feet down; I dug the cellar 7 feet and the privy 10 feet and it was sandy; it is sandy all round there.

X 14. Then all you know of the condition of the under strata from your well to the bed of the river is what you have learned from the digging of your well, cellar, and privy, is it not?

A. That is all I know, as far as I have seen; have seen a good deal of sand pumped up from my own well before we got water fit to drink.

X 15. Are you interested in the result of this suit?

A. No, sir; I paid my $10 a good while ago.

Redirect:

1. In your conversation with Mr. Lake was there anything said by him except to ask you how the water being high or low in the dam affected your well?

A. Not anything.

4869 2. And in replying to him you stated to him substantially what you have stated on cross-examination?

A. Yes, sir.

3. In determining the character of the soil between your well and the river have you not observed the banks of the river when the water was out of the dam?

A. Yes, sir.

(Signed) A. LITTLEJOHN.

Subscribed and sworn to before me this 16th day of M'ch, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4870 EDWARD ROSS, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is Edward Ross; am 51 years of age; reside in Independence, Buchanan Co., Iowa; am president of the Peoples' National Bank of Independence, Iowa.

2. How long have you lived in Independence and vicinity?

A. I came here in the spring of 1857 and have lived here ever since.

3. Do you know block 3 in Stoughton and McClure's 2nd add. to Independence, Iowa?

A. I do.

4. When you first knew the block were there any improvements on it; and, if so, what?

A. No, sir; there were no buildings on it.

5. State, if you know, who built the first house on that block and when it was built and on what part of the block.

4871 A. I built the first house in the year 1861, on the S. E. cor. of the block.

6. What time in the year did you commence to build that house?

A. I think the stone work was commenced in June, or about that time. The house was finished later in the season—I think in Nov.

7. State if you moved into the house; and, if so, about when.

A. I moved into the house as soon as it was finished.

8. Whereabouts did you live before you moved into that house? Give the location and direction as near as you can.

A. I lived in a house owned by Isaac Whittier, now owned by Geo. Hovey. It was a grout house, west of where I built the house about three blocks.

9. What business was you in in the summer of 1861?

A. I was writing at the court-house, I think, that summer.

10. State whether in passing from your house to the court-house and back you passed near the N. W. cor. of this block 3, in Stoughton and McCluis' 2d add. to Independence. 4872

A. I did, usually.

11. State whether at any time you noticed a well near the N. W. cor. of block 3, Stoughton and McCluis 2nd add., which attracted your attention by its peculiar construction.

A. I did notice a well which was called a drive well or a pump.

12. Describe how it looked.

A. Well, I don't recollect anything but the pump; well, it was a pump attached to a pipe; that is about all I recollect about it; it was a new thing to me.

13. What was the pump and pipe made of?

A. Well, I could not say; my impression is they were iron.

14. Did you pump water from this well or see others do so?

A. I think I pumped water and saw others use it.

4873 15. What was said at the time about how the pipe was put into the ground?

A. The way I understood it at the time the pipe was driven into the ground.

16. When was it that you saw this well, with reference to the time you moved into the house you built on the S. E. cor. of block 3, Stoughton & McCluis' 2d add. to Independence?

A. My impression is it was before I moved in, but I am not positive as to that.

Direct rests.

Cross-examination waived.

(Signed) E. ROSS.

4874 Mr. Ross comes before the commissioner and complainants' counsel proceeds to cross-examine him:

X 1. How long did you reside on the S. E. cor. of block 3?

A. I think about a year; perhaps not that long.

X 2. Who was your nearest neighbor at that time?

A. Mr. Tyson, I think.

4875 X 3. How do you fix the date of building of that house—by what data?

A. From the purchase of lots is one.

X 4. Who did you purchase these lots of?

A. Charles W. Cummings was the person I had the trade with, though the title, I think, was in some heirs; I think he was administrator or guardian; I think the title was not in Mr. Cummings.

X 5. What was the number of the block on which you resided prior to your moving into this house?

A. It was a piece that had not been plotted; it had never been laid out in blocks.

X 6. What was your usual route in going from your residence, before you built, to your place of business?

A. We usually went diagonally across this block 3 and also the block west of that—don't remember the number—from southwest to N. E., passing across block 4 about the center and striking the west line of block 3 about $\frac{2}{3}$ of the way from the S. W. corner to the N. W. cor., passing into Main St. near the N. E. cor. of block 3.

X 7. Do you know who lived on the N. E. cor. of block 7 at the time you saw that well?

A. I do not.

X 8. Was Mr. Tyson living near you at the time you saw that well? If so, state where he was living.

4876 A. I think he was living directly east.

X 9. When did he build that house?

A. I cannot say; I think the season before; it might have been the same season; I can't say; I think the house was there when I built.

X 10. What was on the S. W. cor. of block 22, directly opposite, north from where you saw this well?

A. Well, sir, I could not say; about that time there was a small wooden building there; could not be positive as to time.

X 11. How was block 4, directly west of where you saw the well, occupied or used?

A. No, sir; I think not.

X 11½. How long was it after that that this block was built upon or fenced in?

A. I could not say.

X 12. What is your best recollection?

A. Well, I think it was enclosed with a fence not many years after that; whether one year or five I could not say.

X 13. Did you see any parties at work putting this well down?

A. No, sir; I have no recollection of it.

X 14. How frequently did you pass the place?

A. Well, my impression is twice each day; perhaps more.

X 15. Please describe the pump that you saw used in this well.

4877 A. I could give no minute description; my recollection is that it did not differ from other pumps used at that time.

X 16. Was it open at the top like a pitcher pump or closed?

A. I could not say.

X 17. Who told you that it was a tube driven into the ground?

A. I have no recollection.

X 18. How many persons did you hear speak of it as being driven into the ground at that time?

A. Could not say.

X 19. Are you certain, then, that you were told at that time that it was a tube driven into the ground, or is it not possible that you got that idea from wells being made since that time when the tube was driven into the ground?

A. I am satisfied that I got the idea at that time, but how I can't say; that is what gave it its novelty. The idea of its being driven into the ground is what gave it its novelty.

X 20. When was the flouring mill on the west end of the bridge, on Main St., built—the one now standing there?

A. Well, I should think it was finished somewhere about 10 years ago.

4878 X 21. Can you state certainly the year it was finished?

A. I cannot.

X 22. When was the Presbyterian church built on block 3?

A. I should say between 1868 and '70; I could not say the year.

X 23. When did D. S. Deering build on block 7?

A. I think he purchased that; I don't think he built.

X 24. When did he move there?

A. Could not say.

X 25. When did J. E. Trexler build on block 22?

A. Don't know.

X 26. Was there a blacksmith shop on the S. W. corner of block 22, directly opposite the well, the season you saw it?

A. I think not.

X 27. There has been a good deal of excitement on this driven-well question during the last year or two, has there not?

A. I think there has.

X 28. How long did this well remain there?

A. I could not say; I think not a great while.

X 29. What information have you in regard to parties who put that well down, if any?

A. I have none.

X 30. When was your attention first called to this well since 1865, and by whom?

4879 A. Well, I could not say as to that. The first I had put down was in 1871 by Hovey Bros. I don't remember when or by whom.

X 31. You have heard it discussed that it was necessary to prove this well to have been down in 1861 in order to defeat Green's patent, have you not?

A. I have not.

X 32. Have you heard nothing said on that subject?

A. I think I have.

X 33. What other improvements were on block 3 at the time you built your house?

A. Have no recollection of any.

X 34. Was there anything else occurred that year which was remarkable, except the well, and which attracted your attention?

A. There was.

X 35. State what it was.

A. The first company was organized for the war; sickness in my family was one thing.

X 36. When was the 2d company raised in this place?

A. Well, I am not positive as to the date.

X 37. Can you state when any other Co. was raised?

A. There was no other company raised that year.

X 38. Who was your representative?

A. Could not say.

X 39. What year and when did you first see a steam engine?

4880 A. I could not be positive as to the time, but I think somewhere about 1848.

X 40. What year did you see the 1st reaping machine?

A. The summer of 1850.

X 41. What year did you first see the first telegraph operated?

A. Am not positive; think about '48.

X 42. How long did you hold the position of clerk when you saw this well put down?

A. From the fall of 1857 until 1862.

X 43. You say your house was finished in Nov. Did you move in in Nov. or Dec.?

A. Am not positive. It was quite late in the fall; should think it was Nov., but am not positive.

Adjourned until 1.30 p. m. for dinner.

Met pursuant to adjournment.
All parties present.

X 44. In going to your place of business, as formerly testified to, where did you cross the river?

A. Crossed on the Main-St. bridge.

X 45. Was the spring and summer of 1861 a very wet or dry season?

4881 A. I don't think it was extremely wet or dry; I have no distinct recollection about the weather that season.

Cross rests.

Redirect:

1. When you lived in the house known as the Whittier house or grout house did Tyson live near you then?

A. No, sir; not very.

2. Where did you live when Tyson lived across the road from you—that is, give the block?

A. I lived on block 3.

3. On what block did Tyson live at that time?

A. I think block 2 or 7, but I think 2; am not positive.

4. Was not block 4 used to play ball on about the time you saw this well here?

A. It was used for a ball ground in 1858 and '9, but as late as '61 I don't know; don't think it was; it may.

(Signed) E. ROSS.

Subscribed in my presence and sworn to before me this 16th day of M'ch, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

(End.:) Filed Oct. 20, 1880. E. R. Mason, clerk.

4882 S. S. Allen, being produced, sworn, and examined on the part of the defense, deposed as follows:

Q. What is your name, age, residence, and occupation?

A. My name is S. S. Allen; am 51 years; reside in Buchanan Co., Iowa; am a farmer.

2. How long have you lived in Buchanan Co., Iowa?

A. About 27 years.

3. Whereabouts did you live in 1861?

A. On N. W. cor. of block 7, Stoughton and McCluis' 2d add. to Independence, as shown by the plot, Exhibit "B."

4. How long did you live there?

A. From 1855 to 1875.

5. Were you acquainted with blocks 3 and 4, as shown on the plot there, from 1850 to 1863?

A. I was.

6. Did you at any time see some men making a well on any of those blocks? And, if so, state what you saw them do.

A. Well, in 1861 or '2 I saw men there driving wells and putting them up, either on block 3 or on the street west and joining block 3 or driving iron tubing into the well and pulling them up.

4883 7. About what was the size of this tubing that they drove?

A. I should think 1½ or 2 inch tubing, about the size that is commonly used now for drive wells.

8. How deep did they drive this tubing into the ground?

A. Could not say; should say over 18 feet and under 20; from recollection would say not far from 14 to 16 feet.

9. When they had the tubing down what did they do then?

A. Screwed a pump onto the top of it and pumped water and sand.

10. State whether they made any hole in the ground before they drove the tubing.

A. They did not.

11. State whether there was any hole outside the tubing in the ground.

A. I saw no holes except what they made with these tubes; they made several holes; the ground was tight to the tube.

12. How long did this well remain there?

A. Well, I should think two or three months; maybe longer.

13. Did you see any persons use this well while it was there; and, if so, how many?

A. I saw a good many persons pump water from it.

14. At the time this well was there do you know who lived
4884 on the N. E. cor. of block 7? If so, state.

A. I believe Mr. Brown, my recollection is.

15. Do you know of D. S. Lee raising a Co. here to go into the late war of 1861 to 1865?

A. I know such Co. was raised and D. S. Lee went as captain.

16. When was it that the Co. was raised with reference to this well you speak of being there?

A. I think it was the same season.

Direct rests.

Cross-examination:

X 1. Who put this well down that you have testified about?

A. It was strangers to me.

X 2. Were you present during the entire time of the constructing of this well?

A. They constructed several wells, some of which I was not present during the entire time and some I was.

X 3. How many of these wells were you at during the entire time?

A. I recollect two in particular that they commenced, and before I left they drew water.

X 4. Where were these two located?

A. On or within a few feet of the west part of block 3.

4885 X 5. Did you know any of the parties engaged in making these wells?

A. I did not, except what I got acquainted with them while they were about the premises there.

X 6. Were you present during the construction of the well that you say remained there two or three months?

A. I could not say, as they pulled up the tubing every two or three days and changed it from one hole to the other for two or three weeks.

X 7. What were the names of these parties, or any of them, and where were they from?

A. I do not know.

X 8. What kind of a pump was used on these tubes? Describe it.

A. I should say a common cistern pump; I don't remember whether it was a pitcher pump or snout pump. I never expected to have my attention called to it again; it was a novelty.

X 9. What kind of an end was there to the tube that was driven into the ground? Describe that.

A. I do not remember in particular; I should say it was like any other tube, with a plug in the end they drove down, and with some holes bored in the side of the tubing.

X 10. How did they drive this tube, and what arrangement did they make for driving it?

4886 A. Well, they got into a dry-goods box, or some other box, put the tube down, and drove it down with a sledge.

X 11. Did these wells furnish a good supply of water?

A. There was a vast amount of water pumped out of the wells.

X 12. What was the object of putting these wells down?

A. I suppose to have parties get them to put down some on their premises; that was my understanding at the time.

X 13. Do you know of any parties getting wells put down like these directly after these experiments were made?

A. I do not for a year or two afterwards; don't recollect of any.

X 14. When was the 1st one put down after this one that you remember of?

A. I should say a couple of years afterwards.

X 15. Did Mr. Brown build the house on that N. E. cor. of block 7?

A. He did not build the whole house; he might have built an addition to it; don't recollect particularly.

X 16. How long did he live there and when did he move away?

A. I could not say.

4887 X 17. What is your best recollection?

A. Well, I should think a couple or three years. I should say to the best of my recollection it was in 1863. It might have been '64 that he moved away.

X 18. What was this man Brown's given name?

A. I don't recollect. I did know it for several years, but I forget.

X 19. Was there any buildings on this block 3 at the time you saw this well there?

A. I think there was one on the S. E. cor.; would not be positive, though.

X 20. When was block 4 improved, either by building or being fenced in? State what year.

A. I could not tell; Mr. Woodward improved it; well, I think he commenced in '70 to fence it in and get the lumber on it along about '71 or '72. I should say so.

X 21. Was there any building or shop directly north of where you say this well was located, on block 22? If so, state what was there.

A. There was a building on the S. E. cor.; was a dwelling-house and an old building on the S. W. corner which was afterwards used as a blacksmith shop.

X 22. Was the building on the S. W. cor. used as a blacksmith shop at the time you saw this well?

4888 A. I do not remember.

X 23. What is your best recollection about it?

A. It seems to me that it was not used as a blacksmith shop at that time; that is my best recollection; eighteen or 20 years is a good while to remember such things.

X 24. Were these all the buildings you recollect of being on block 22 at that time?

A. I think it was, except an old cabin.

X 25. You say there were a number of tubes driven or holes made; do you mean to be understood that there were several sets of tubing and different wells made or were these experiments made by using one set of tubing?

A. No; they were driving down with one set of tubing; there were two sets laying round.

X 26. Where did Edward Ross live at the time this well was made?

A. I don't remember.

X 27. Do you know where T. H. Tyson lived at that time?

A. I do not, unless he had moved on to the cor. of block 2. I think he bought that that season.

X 28. There has been a good deal of excitement during the last year or two on this driven-well question, has there not?

4889 A. There has, more or less.

X 29. You have heard considerable discussion about this well that you have testified about and you have been interrogated as to the time it was put down, have you not?

A. Yes; I have been spoken to two or three times about it. I think Col. Lake spoke to me once about it and Mr. Hovey once. I have a diary in which I put down things I want to remember.

X 30. You state in your direct examination that this well was put down in 1861 or '2. Now, are you not positive that it was not in the spring of 1863?

A. I am not positive.

X 31. State what year, to the best of your recollection, was the Presbyterian church built?

A. I should say the latter part of the war—along in '64 or '65.

Cross rests.

Redirect:

Int. 1. You say in your cross-examination that these parties drove the same tube down in several different places; did they do all that on one day or was it on different days?

4890 A. On different days, although I saw them drive it two or three times in one day.

2. State whether they drove the whole tube at once or in different parts.

A. In different parts.

3. State whether these men drove this as an experiment with them or did they claim they could make a well of this kind in sand and gravel anywhere and drove these tubes in different places to show what they could do.

A. I understood from their driving in different places that they did it to show how they would work in different places; they claiming that they could get water in any place where there was not quicksand, clay, or rock; that is about as they talked.

4. Has the discussion that you have heard about these drive wells and about this well changed your recollection in regard to it in any manner?

A. I don't think it has.

5. Did anything happen to the house on N. E. cor. of block 7 while this well was there that called your attention to it particularly? And, if so, state what it was.

4891 A. The house took fire on the roof and there was water brought from that well to put it out, and I was the first party at the house and was the first party on the roof.

6. Who lived in this house at the time?

A. I think the man Brown.

7. State who lived in that house next after Brown, if you know.

A. Either Mr. Tyson or Mr. Deering—I can't say which of those men—the only three men who ever lived in that house after I moved over there, except a part of one year E. H. Gaylord; he lived there a little while and then moved into my house, on the same block. My impression is that E. H. Gaylord moved in immediately after

Brown moved out; I think Mr. Deering went in after Gaylord moved out.

Redirect rests.

Recross:

X Int. 1. What year was it Mr. Gaylord lived there?

A. I should think it was 1862 and '3.

X 2. How do you know the water was brought from that well to put out the fire?

A. Because they made a line of men with pails to my house—that was the nearest—and passed water to me on the roof from my house, and parties from the other direction brought water from the
north; that is the reason that I think it was from the well
4892 on the N. W. cor. of block 3; there was no other well near
in that direction.

X 3. Was the amount of water large that came from that direction or a small quantity?

A. I should say quite a number of pailsful-.

X 4. Could you see from where you were on the roof of this house whether the water came from this well; might it not have come from the river?

A. I could see to the well, but I could not see to the river; I could not say that I saw them pump water.

Redirect:

1. How far was it from the house to this well?

A. Between 15 & 20 rods.

2. Did you see men going towards this well or coming from that direction with pails of water?

A. I did.

3. How far would it be in that direction to go to the river?

A. I should think between 60 & 70 rods, and maybe more.

4. Were these persons gone long enough to go *to* from the house to the river and back?

A. I think they were not.

(Signed) S. S. ALLEN.

Subscribed and sworn to before me this 16th day of M'ch, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4893 Adjourned until Wednesday, March 17th, A. D. 1880, at 8.30 a. m.

MARCH 17TH, A. D. 1880.

Met pursuant to adjournment at 8.30 a. m.
All parties present

GEORGE WARNE, being recalled on the part of the defense, deposed as follows:

Int. 1. How far do you live from the river in Independence, Iowa, and on which side of the river?

A. I live on the west side of the river and about 35 rods from it.

2. Which way on the stream is the dam from your house—up or down?

Ans. A little down.

3. Have you a well at your place; if so, how deep is it?

A. I have a well; it is about 18 feet deep.

4. Since you have lived in that place — the dam been out so as to let the water out; if so, how many times and what effect did it have on the water in your well?

4894 A. Well, the dam has been out since when I lived here, when let 3 or 4 times, and the effect has always been to give me a dry well.

5. How much water is there in your well when the dam is in and full of water?

A. Somewhere in the neighborhood of three feet.

6. What is the character of the soil in the bottom of your well?

A. White sand.

7. What is the character of the soil between your well and the river?

A. Well, it is about the same as where my well is, a loam on top 2 or 3 feet, and sand below that.

8. In cases of very high water in the river how is your well affected as to the water in it?

A. The depth of water in the well corresponds to the surface of the water in the river, rising and falling with the river, at which times the water becomes very muddy and roily—(at which times when the water is high).

9. Since you were on the stand before have you made an experiment to show the difference between an open and driven 4895 well, as to the facility with which water flows through sand? If so, state what experiment you made, giving the apparatus used and the results, as shown by the experiment.

A. I have. March the 8th, 1880, I made an experiment with two pumps placed in an artificial box or reservoir; the box or reservoir was 15⅞ inches wide, 3 feet long, 29 inches deep; in both ends of the box 7½ inches upon the ends were two pumps constructed alike, or as near alike as human ingenuity could make them; one pump, representing a drive well, was set 7½ inches from one end of the box or reservoir; the other pump was set the same distance from the other end of the box, and was surrounded with a perforated tin screen 6 inches in diameter, representing an open well; the said box was filled with coarse sand and gravel within 3 inches of the top;

the box was then filled with water an inch or more above the 4896 surface of the sand; the sand was packed around the screen that forms the open well, and then one man operated both pumps, the well representing the drive well with the right hand and the well representing the open well with the left hand. At 2 o'clock p. m. commenced pumping with both pumps, the water discharging into the box from both pumps, and pumped water in that manner 5 minutes by the watch; water in the reservoir or open well tube inside of the outside screen was measured and there was 19 inches of water in the open well pit; the sand was then removed from the upper surface of the open well screen to the depth of about 3 inches; pumps were then worked by the same hand for a space of 5 minutes by the watch, and the water was measured in the open well pit and was found to contain 26½ inches by measure; we waited one minute by the watch for the water to settle or assume its natural position, and measured the water in the well pit and found that we had 26½ inches, as we had before; we then pumped the water out of the reservoir or box into a tub with the pump in the open well, and pumped until the pump took air; time, 1½ minutes; 4897 water measured in the well pit and found to contain 8 inches of water; waited one minute and pumped again to air in 30 seconds; amount of water in the pit, 7½ inches; waited one minute and pumped all the water out we could; time, 30 seconds; depth of water in well pit, 7 inches; length of screen point of each pump, 7 inches; all the water was then returned to the box or reservoir, and waited 2 minutes for it to settle in the sand; then the pump representing the drive well was used and pumped to air in 2 minutes, and amount of water in the open well was 12 inches; we waited 2 minutes and pumped to air again in 25 seconds; water in the well pit, 11 inches; waited 2 minutes and pumped to air in 13 seconds; amount of water in the well pit, 10 inches; waited 3 minutes and pumped all the water we could get in 1¼ minutes; amount of water in the well pit, 7⅝ inches. The measuring in the well pits was done in all these experiments by a stick, showing the depth of the water, and the stick was measured by a square. In the experiment of pumping with both pumps in the same box the 4898 current of water on the surface of the sand in the box was always in the direction of the open well.

10. In the experiment you have just described state whether in the fast pumping that you say was done the sand was piled up around the perforated tin so that no water could run over the sand.

A. It was so done that no water could run over the top of the screen; no, it could not run over the top of the sand to the screen; I should think the length of the perforated tin screen representing the open well from the position of the sand and the water in the box was about 29 inches deep; it sat on the bottom and came up level with the top of the box.

11. State whether the sand filled into the holes in this perforated screen; and, if so, what effect it had on the flow of water in the open well.

A. The sand coming in contact with the screen, of course, it obstructed the flow of water into the open well by stopping up the holes so that the water in fact sucked itself thro' the sand into the open well, thereby obstructing the flow of the water into the well.

Direct rests.

4899 Cross-ex.:

X 1. Did the perforations in this tin cylinder extend the entire length of the sides of it? If not, please state how far they did extend and give the size of the perforations as near as you can.

A. Well, the perforated tin was the usual kind of tin used by hardware men generally, with perforations probably about the size of a common pin's head; think, if any, smaller. It was perforated from top to bottom.

X 2. State which kind of a point was on these tubes that were attached to the pump.

A. They were made, I think, of the same material, perforated tin. From the point to the upper hole, that would admit air or water, 7 inches.

(Signed) GEORGE WARNE.

Subscribed in my presence and sworn to before — this 17th day of March, A. D. 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4900 Dr. HORATIO BRYANT, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. Horatio Bryant; am most 71 years of age; reside at Independence, Buchanan Co., Iowa; am a physician and surgeon.

2. How long have you resided in Buchanan Co., Iowa?

A. Between 25 and 26 years.

3. How long have you practiced as a physician?

A. Over 40 years.

4. Before you studied medicine did you take a course of study in any school; and, if so, what course?

A. I took a collegiate course, half in Amherst College, Mass., and half in Union College, State of New York.

5. In that course did you study philosophy, and especially as to the relative weights of air and water and as so the relative pressures made by different heights of water?

A. Natural philosophy was in our study, and that particular point was before us.

4901 6. What is the pressure of the atmosphere to the square inch at the level of the sea?

A. 15 pounds, I believe, but would not be confident; have not turned my attention much to that of late years.

7. What height of water is considered equivalent to the pressure of the atmosphere?

A. If I must answer that question, I should say about 33 feet.

These questions I answer from impressions on my mind or other than distinct recollections or the teachings of books or professors.

8. What is the relative pressure of different heights of columns of water, and how would you represent the different pressure?

A. The force of different columns of water is relatively as the squares of the height?

9. Supposing one column of water to be 4 feet high and another column 6 feet high, how would you represent the different forces in figures? Give the method of ascertaining it.

A. I would represent the forces by 16 and 36. The relative force of these two columns would be as the square of the heights, 4 times 4 is 16 and 6 times 6 is 36.

4902 10. Supposing two tubes of the same size were forced down into the earth and into a water-bearing stratum, one to the depth of 4 feet and the other to the depth of 6 feet into the water-bearing stratum, the surrounding matter in which the water is contained being the same in both instances, would the relative forces be the same as you have stated in two columns of water?

A. The law admits of no friction. The friction being the same and all the conditions being the same, I don't know any reason they should not be.

11. Do you know anything of the conditions of water passing thro' sand and gravel in the earth? If so, explain how readily it passes and what conditions do affect its passage.

4903 A. I have some notions about these things. Well water flows quite freely thro' coarse sands and gravel; thro' certain sands more readily than some forms of sandy soil; thro' sand that we call quicksand, which has by friction become smooth, the angles worn off smoothly; water flows as freely and rises and falls as though this material was not in its way. Then we have sand or coarse soil; the particles are angular and the fluids are obstructed somewhat in their flow. In fine soil—clay, for instance—it is almost entirely arrested in its progress.

12. Have you seen wells made by driving an iron tube into the ground? If so, state whether, in your opinion, that tubes can be made to fit so tightly in the earth that air would not pass down outside the tube between that and the surrounding earth.

A. I have seen persons driving tubes into the earth for the purpose of getting water. I do not think they could.

13. In your studies and reading have you ever come across a work known as "Rees' Cyclopedia?" If so, state when you first saw said work, about how many volumes it contained, and on what subjects it treated and if you have seen more than one set; and, if so, about — many sets you have seen and when.

4904 A. I have; well, I am confident of having seen it and had reference to it as early as 1855 or '6; I cannot say how many volumes it contained; they were quarto volumes, and a very large number of them; I think from 30 to 50. It professed to treat on all subjects of history, science, and somewhat of biography. I can't say how many I have seen; I have consulted 3 different sets.

Direct rests.

Cross-examination:

X Int. 1. In your answer to interrogatory No. 12 you say that the earth could not be packed so tightly against the tube as to prevent the air from passing down between the tube and surrounding earth. Now, if the earth was packed tightly around the tube, would the air pass more freely down the sides of the tube than it would through the earth surrounding the tube, the formation and condition of the earth being the same?

A. No, sir; I don't think it would.

Cross rests.

Redirect waived.

(Signed) HORATIO BRYANT.

4905 Subscribed in my presence and sworn to by the above-named affiant this 17th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4906 JOHN M. KING, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is John M. King; am 49 years old; reside in Buchanan Co., Iowa; am a farmer.

2. How long have you resided in Buchanan Co., Iowa?

A. 29 years.

3. What has been your occupation since you have been in this county?

A. Farming.

4. Do you remember of the breaking out of the late war of the rebellion, '61–'65.

A. Yes, sir.

5. Did you go into the military service; if so, in what company and reg't did you go?

A. Yes; I went into the 6th Iowa Cavalry, Co. "G."

6. Before you went into the 6th Iowa Cavalry did you see a well at Independence that attracted your attention by its construction?

A. Yes, sir; I did.

7. Where was that well located. Give the place as near as you can.

A. It was on the west side of the church, west of the Presbyterian church, near where Stout is living now, only just a 4907 little this side; it was east and a little north of Stout's house.

8. Describe that well, as nearly as you can, as you saw it there.

—. Apparently there was a tube driven into the ground with an iron top on it and a spout on it; it was not like our iron pumps now; the spout was like a trough, and it was like those they now use for a sand pump in making these iron wells.

9. Did you pump water from this well or see others do it?

A. Yes; I think I pumped and saw others pump it.

10. State whether there was any hole in the ground outside the tube.

A. I did not see any.

11. What year did you go into the war with the 6th cavalry?

A. In the fall of 1862.

12. When was it that you saw this well with reference to the time you went into the war?

A. It was on the 4th of July, either in 1861 or 1862.

Direct rests.

4908 Cross-examination:

X Int. 1. Where did you reside at the time you saw this well?

A. In Byron t'p, Buchanan Co.

X 2. What kind of a season was it you saw this well, very wet or very dry?

A. I don't remember particularly about that; it was not very wet or very dry; it was an ordinary season.

X 3. Have you any distinct recollection about the season, whether it was wet or dry?

A. Well, I know it was not a very wet season or a very dry season; it was a common season; we had good crops.

X 4. Were you acquainted in the neighborhood when you say you saw this?

A. Well, I was not acquainted with all the people at one time; I knew them all, but the- settled in so fast that I did not know. I was well acquainted — the location of the land.

X 5. How long had the Presbyterian church been built when you saw that well?

A. I can't state positively.

X 6. At the time you saw this well where did the church stand? State of what material it was built.

A. East of this well and of wood material.

4909 X 7. State whether there were any buildings directly south of where the well was; and, if so, how were they occupied.

A. I believe there were some small buildings—dwelling-houses.

X 8. Was there a blacksmith shop there across the street, north from this well?

A. I can't say positive whether there was or not at that time, but — is my impression that there was one.

X 9. What other buildings were on the block that the Presbyterian church was on at that time?

A. I think there was a blacksmith — on the cor. east of the Presbyterian church, and I think there was a dwelling-house on the south part of it; this is my impression; I would not say positive.

X 10. Did this frame Presbyterian church stand about where the brick Presbyterian church now stands?

Ans. I don't know the *the* location of the brick at the present time.

X 11. Do you know where D. S. Deering lived at the time you saw this well?

A. No, sir.

X 12. How often did you see this well?

A. Well, I don't remember but the one time on the 4th of July, as I have stated before.

4910 X 13. Did that kind of well go into general use right along after that was put down in this locality?

A. No, sir.

Cross rests.

Redirect:

Int. 1. When you speak of the Presbyterian church and blacksmith shop being on the same block as the well you saw, how far do you figure the block to run towards the river?

A. Well, to the street; I don't know the name of the street; I figured the block as coming to the street next west from Fonda's store.

Red. 2. How far is Fonda's store from the end of the bridge—from the west end of it?

A. I should think about 4 rods.

Red. 3. Is there any street between Fonda's store and the river?

A. No, sir; it lays right on the river—that block; that block is fractional.

Red. 4. About how far was this well east of where Stout's house is situated?

A. I should think about 10 rods, a little north of east.

4911 Red. 5. Do you remember when Abraham Lincoln was inaugurated President of the United States?

A. Yes, sir.

Red. 6. When was it you saw — well, with reference to his inauguration, before or after?

A. I think it was the year he was inaugurated or in '62; I can't swear positively as to which of these two years it was positively.

Redirect rests.

Recross:

Int. 1. Was there any street between the well you say you saw and the frame church?

A. Not any at that time; that was naked.

R. X 2. About how far was it from the well to the frame Presbyterian church?

A. Well, I should think it was 5 or 6 rods; somewhere along there; it was not very far off — the church.

Redirect:

Int. 1. Now, Mr. King, are you sure there was a church on the west side of the river at the time you saw this well?

4912 A. I supposed it was a church at that time.

2. Do you know where Abraham Fonda's house now is on the west side of the river?

A. No, sir.

3. Do you know where the stone building that T. B. Ballene used to occupy on the west side of the river is?

A. The Bazaar, a stone building; yes.

4. How far was this building that you called a church west of that stone building you call the Bazaar?

A. I should — it was not more than 20 or 30 feet, and right across the street south.

5. Did this building you call the church have any steeple to it at that time?

A. I think not.

(Signed) JOHN M. KING.

Subscribed and sworn to before me by the above-named affiant this 17 day of March, 1880.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

4913 Adjourned for noon.

Met pursuant to adjournment.

All parties present.

A. H. FONDA, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is A. H. Fonda; am 55 years of age; reside in Buchanan Co., Iowa; am a merchant.

2. How long have you resided in Buchanan Co., Iowa?

A. 25 years.

3. Do you know block 3 in Stoughton & McCluis' 2nd add. to Independence, Iowa?

A. For 25 years I have known.

4. Did you at any time see a well on that block that attracted your attention by its manner of construction?

A. I did.

5. Describe the well as you saw it there.

A. It was a well without any digging, a pipe put in it and a pump attached to it at the top of the ground.

6. Was there any hole in the ground outside of this pipe?

A. None, except what the water washed. I think the pipe was solid in the ground. I think there was no hole in the ground outside of the pipe. 4914

7. Did you use this well or see others use it?

A. I pumped water there; saw others use it a good deal.

8. What year was it that you saw this well?

A. I think it was in the fore part of 1861.

9. Do you know the house on the S. E. cor. of that block and when it was built?

A. I know the house, but I am not positive whether it was built in 1861 or '62.

10. State whether this well was there before the house was built.
A. I think it was.

Direct rests.

4915 Cross-examination:

X Int. 1. Did this well give a good supply of water, sir?
A. A fair supply of water.
X 2. Did that kind of well go into general use right along in this locality?
A. No, sir; it did not.
X 3. Are you positive you saw this well in 1861, and is it not possible it was in 1862 that you saw this well?
A. Quite positive, sir, that it was in 1861 that I saw it there.
X 4. What time was the Presbyterian church built on that block?
A. In 1868.
X 5. Then you will swear positively that it was not in 1862 that you saw this well there, will you?
A. Yes; I will swear positively that it was not in 1862.
X 6. And you will swear positively that the well was there before the house was built on the S. E. cor. of that block, will you?
A. I will not swear positively that the well was there before the house was built, because I do not know when that house was built.
X 7. Was there a blacksmith shop directly north across Main St. from where the well was?
4916 A. Yes; I think there was.
X 8. Who lived on the N. E. cor. of block 7 at that time?
A. I do not know.
X 9. Was there any other building on the block north from where this well was, on which you say there was a blacksmith shop?
A. There was; there was a little small brick building there; the only one I could swear to positively on that block.
X 10. There has been a good deal of excitement in this locality on the driven-well question within the last year or two, has there not?
A. Yes, sir; considerable.
X 11. You have heard a good deal of discussion on the subject of the payment of royalty on the Green patent and a good deal of talk as to when this well was put down, have you not?
A. Yes, sir.
X 12. There has been an organized opposition in this county to the payment of royalties, has there not—meetings held, and considerable bitterness manifested, has there not?
A. No organized opposition, to my knowledge; there has been some meetings and much bitterness.
X 13. Do you sympathize with the opposition?
4917 A. No, sir.

Cross rests.

Redirect:

Int. Has this discussion or opposition or bitterness affected your recollection of the time you saw the well in any manner?

A. No, sir.

(Signed) A. H. FONDA.

Subscribed and sworn to before me and in my presence by the above-named affiant March 17, 1880.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

Adjourned until Monday, March the 29th, A. D. 1880, at 10 o'clock a. m.

4918 MONDAY, *March 29th*, 1880.

Met, pursuant to adjournment, at the office of Lake and Harmon.

All the parties present.

T. J. MARINERS recalled on the part of the defense.

Int. 1. Did you know of the existence of a club in Independence known as a cricket club; and, if so, was you a member of said club?

A. I did; I was a member of it.

2. When was that club organized and how long did it remain as a club?

A. It was organized in 1860, to the best of my recollection. It remained as a club until about the 1st of July, 1861.

3. Who were some of the leading members of that club? Give their names.

A. C. F. Herrick, A. B. Lewis, Tom Blondin, W. B. Marshall, Carl White, Vernon White.

4. State, if you know, what Carl White, A. B. Lewis, W. S. Marshall, and Tom Blondon did about the time of the breaking up of the club.

A. They enlisted in Co. "E," 5th Iowa Infantry.

4919 5. State whether you remained in Independence after they went away.

A. I did.

6. State whether cricket ball was played after Co. E of 5th Iowa Infantry left Independence.

A. Not to my recollection.

7. On what ground did this club play while it had an existence? If on grounds shown by plot "B" of def't's testimony, state what was the number of the grounds, as shown by the plot.

A. On block 4, as shown by plot marked Exhibit "B." It is now occupied by Z. Stouts as a residence.

8. Do you know and can you designate on the plot where the stone store is, owned by Mr. Sourbeer, and which used to be occupied by T. B. Bullene as a store?

A. Yes; on block 21, as shown by this Exhibit "B."

9. Please take a pen with red ink and mark as nearly as you can the location of the store.

A. I have marked it on the plot and marked it Sourbeer.

10. Do you know the size of the blocks in Stoughton's & McClure's 2nd add. to Independence, Buchanan Co., Iowa? And, if so, state what they are.

4920 A. 16 rods square.

Direct rests.

X:

X Int. 1. Where did you reside during the years 1861 and 1862 in Independence?

A. On lot 2, in block 10, in Stoughton and McClure's add., on the east side of the river.

X 2. About how often did you meet on this block 4 to play cricket during 1861?

A. About once a week for 2 months.

X 3. What months?

A. The months of May and June.

X 4. How many members were there in this club?

A. I don't know just the exact number. There were from 15 to 20 members.

X 5. Give the names of the officers.

A. I don't think I can give the names of the officers. Have forgotten them, with the exception of C. F. Herrick, who was captain. That was the most important office.

X 6. Was you in business on the west side of the river during the years 1861 or '2?

A. I was not.

X 7. Did you have anything to call you over on that side of the river particularly, or at any stated times, except this ball playing?

A. Nothing that really called me, except to see the drilling of the military Co.

4921 X 8. How frequently did you go over in that part of the town where you say you played ball after the military Co. left?

A. Can't tell in regard to that; not very often.

X 9. Was there any other kind of ball playing other than cricket on or around block 4 during the years '60 or '61 or '62?

A. Not that I know of.

X 10. During the latter part of 1861 and '62 were you over the river and in sight of these grounds sufficiently frequent to know that there was not at any time cricket or some other kind of ball played on block 4?

A. I was not.

X 11. During the time you played cricket was any other game of ball played on or about those ground, or during that period?

A. Not that I know of.

X 12. You were not over there except when you went to play cricket or see the military Co.?

A. Not very often.

Cross rests.

Redirect:

Int. 1. Was there any other cricket club at Independence during the years '60 & '61 than this one to which you belonged?

A. No, sir.

2. After this club was broken up by its members going into the army do you know of another cricket club being organized here?

4922 A. I do not.

Recross:

Re-X. Do you know of any other cricket club at that time in Iowa? If so, state the nearest one to Independence at that time.

A. I believe there was one at Manchester or Dyersville, 25 or 30 miles from Independence.

Redirect:

Int. 1. Do you know of that club's coming here and playing a match game with our home club?

A. Yes, sir.

(Signed) T. I. MARINERS.

Subscribed in my presence and sworn to before me by the above-named — this 29th day of March, 1880.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

4923 J. M. Gillett, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. J. M. Gillett; am 71 years of age; reside in Independence, Buchanan Co, Iowa; am not engaged in any business at present.

2. How long have you lived in Independence?

A. Eleven years last fall since I became a permanent resident of Independence.

3. On which side of the river and how far from the river do you live?

A. I live on the east side, about 35 or 40 rods from the river, as near as I can judge by the blocks.

4. Have you a well at your place; and, if so, what kind of a well is it and how deep is it?

A. I have a well; it is termed a dug well, covered with boards; it is about 20 feet deep, as near as I can judge.

5. State whether the water in your well is affected by the rise and fall of water in the river.

A. It is.

6. What evidence have you of that fact? State fully.

4924 A. At the time they let the water out of the dam to repair it my well run dry. There was no rain in the meantime of any amount until they finished the dam and closed it and let the water in. My well commenced filling up with water, and rose as the dam filled until it was higher than originally, because they made the dam higher.

7. How is the hight of the water in your well affected by high water in the river?

A. It rises and falls with the river.

8. Since you have lived in that place has there been times when the water in the river was very muddy and "rily?" If so, state what effect it had on the water in your well.

A. Yes, sir; the river is muddy most every spring when we have floods. It does not riley very well.

9. State, if you know, why the riley water in the river does not make riley water in your well, since you say the water in your well rises and falls with the water in the river.

A. Well, the subsoil or undersoil half the depth of the well is sand and gravel and some quicksand, and the water filters, I think.

10. What is the character of the soil between your well and the river?

A. I can't really tell, for I have never examined it.

4925 11. From the appearance of the land between your well and the river what should you judge the character of the soil was with reference to the character of the soil at your well?

A. I should think it was the same as the subsoil in the well.

Direct rests.

Cross-examination waived.

(Signed) J. M. GILLETT.

Subscribed in my presence and sworn to before me by the abovenamed affiant this 29th of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Pub.

4926 Adjourned until 1.30 p. m. forenoon.

1.30 P. M.

Met pursuant to adjournment.

All parties present.

"EXHIBIT G."

Counsel for defendant now offers in evidence the report of the adjutant general of the State of Iowa, vol. 1, made by the adjutant general and acting quartermaster general of Iowa, Nathaniel B. Baker, to Samuel J. Kirkwood, Gov. of Iowa, dated Jan'y 1st, A. D. 1863, and published by authority of the State of Iowa, under the laws of the 9th General Assembly of the State of Iowa, capt. 103, and we offer pages 186, 187, 188, and 189, and especially that part which shows the enlistment of Alexander B. Lewis, W. S. Marshall, Carlos L. White, Richard Whoit, and Thomas Blondin.

We offer, further, the statement of the adjutant general of the date that this company was ordered into quarters and the time it was mustered into service. We also offer in evidence, in the same volume, on page 328, in the roster of Company "C," 9th Iowa Infantry, the enlistment and date of enlistment of Julian Furcht and the state-

ment of the adjutant general that this company was ordered into quarters by the Governor July 20th, 1861, and was mustered
4927 into service September 24th, 1861. Have marked the vol. Exhibit —.

(Signed) F. JENNINGS,
Commissioner.

Defendant now offers in evidence certified copy of letters patent 73425, issued to Nelson W. Green, of Cortland, N. Y., for an improved method of constructing artesian wells, dated the 14th day of Jan'y, 1868; also copies of drawings and specifications annexed to the same is hereto attached and marked Exhibit "H."

Defendant further offers in evidence certified copies of the specifications and drawings of letters patent issued to Levi Disbrow, of the city of New York, dated Nov. 1st, 1830, and hereto attached and marked Exhibit "I."

Counsel for complainants objects to the introduction of this document or letters patent for the reason that the same is incompetent and immaterial; that the same is not properly certified or authenticated.

Defendant further offers in evidence copy of the Buchanan Co Guardian, published at Independence, Tuesday, July 9, 1861, and on page 3 of said paper, under the head and title of "The Guards Ready," *and* the list of officers and men that were afterwards
4928 mustered into the 5th Iowa Infantry as Company "E," and is hereto —, marked Exhibit "J."

Also a copy of the Buchanan Co. Guardian issued July 16, 1861, on page 3, under the head of Muster Roll Independence Guard, 5th Reg't Iowa Volunteers, and the list of officers and men of that company, showing that W. S. Marshall, C. L. White, Thomas Blondin, A. B. Lewis, and Richard Whoit were among the men of that company, and also John A. Davis and A. J. Francis, and is hereto —, marked Exhibit "K."

Jed. Lake, being called on the part of the defence, deposes as follows:

I say that the copies of the Buchanan Co. Guardian offered in evidence and dated July 9, 1861, and July 16, 1861, were published, at the time they are dated, at Independence, Iowa; that the paper was at that time and had been for some time prior thereto a newspaper published regularly at Independence; that I was a regu-
4929 lar subscriber to the paper at that time and received these as my copies, and that I have had them in my possession since the date of their publication.

(Signed) JED. LAKE.

Subscribed in my presence and sworn to before me this 29th day of March, 1880.

[SEAL.] (Signed) FRANK JENNINGS,
Notary Public.

4930 Adjourned until 7.30 p. m., March 29th, 1880.

7.30 P. M.

Met pursuant to adjournment.
All parties present.

JOHN H. CAMPBELL, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is John H. Campbell; am 52 years of age; reside in Independence, Buchanan Co.; am in general business.

2. How long have you resided in Independence?

A. 24 years.

3. Did you know of a cricket club existing in Independence about the years 1859, '60, & '61?

4931 A. I did.

4. State, if you know, who were the principal members of that club.

A. I think C. F. Herrick, if I recollect, was the captain on one side; a man by the name of Lewis Blondin, Carl White, and, I think, Col. Lake belonged to it, if I am not mistaken, and several others belonged to it; I don't remember their names.

5. Do you know what became of Carl White and Mr. Lewis and Mr. Blondin?

A. I think they all went to the war.

6. In whose company did they go?

A. Am not positive, but I think it was Capt. Lee's Co.

7. Did you know W. S. Marshall?

A. Yes; knew him very well.

8. State whether he went in the same Co. to the war.

A. Am not positive, but I think he did.

9. Whereabouts did this Co. play cricket when they played?

A. On the ground where Mr. Stout's house now stands; don't know the number of the lots; it is on the west side of the river; they played there when I saw them play; I never saw them play any other place, though they might have played elsewhere.

4932 10. At any time when you saw them play there did you see a well in that vicinity that attracted your attention by its method of construction?

A. According to my best recollection, I did.

11. Where was this well located?

A. It was on the corner of the lot this way, east of the cricket ground.

12. Where was this well with reference to the Presbyterian church that is now on the west side of the river?

A. On the N. W. corner of the same block the church is on.

13. What kind of a pump was at this well?

A. The pump itself was an ordinary iron pump, according to my best recollection.

14. What was this pump fastened onto?

A. Well, I suppose it was on the iron tube; it looked like it.

15. How was this tubing put in the ground?

A. I think it was driven in; I was along there several times when they were putting it down.

16. What did they drive with?

A. Can't tell whether it was wood or iron mauls or mallets that they had; don't remember.

17. Did you pump water at this well?

4933 A. Think I did.

18. Did you see others use it for pumping water?

A. Yes.

19. About how long did this well remain there?

A. Don't remember the length of time.

20. After Carl White, Mr. Lewis, W. S. Marshall, and Tom Blondin went into the military service and left Independence did you know or hear of any cricket ball being played on these grounds where you say you knew of cricket being played?

A. Not to my knowledge or recollection.

Direct examination rests.

Cross-ex.:

X Int. 1. In what part of Independence did you reside at the time you say you saw this cricket playing and the well?

A. I resided on Walnut street on the east side of the river.

X 2. What business were you engaged in at that time, and where?

A. I was dealing some in real estate. I had no regular office at that time. I stopped most of the time at Mr. Woodward's law office when I had business to attend to.

X 3. Where was Mr. Woodward's law office?

A. At that time it was on Main St., east of this a little ways, on the east side of the river.

4934 X 4. Did any other club than the one you have referred to ever play cricket on those grounds?

A. I remember of the Dyersville club being here one time and played a match game. I think they were from Dyersville.

X 5. Was there any other kind of ball played on that ground during this period?

A. I don't remember that there was. There might have been base ball, but I don't remember distinctly or positively about it.

X 6. How often did you see them playing cricket on those grounds, and were you in the habit of attending regularly, or did you only see it a few times?

A. I was not in the habit of attending regularly, but saw them play a number of times, but how often I can't remember.

X 7. What buildings or improvements was nearest to where you saw this well?

A. Well, I remember of there being several buildings north of Main St., opposite to where this well was located; there was two or three little buildings; perhaps more. I know there was a blacksmith shop on the cor. either then or before or since.

X 8. Who occupied the other buildings you have mentioned?

A. Don't remember.

X 9. Was there anything besides this well on the block where you say it was located?

A. I can't answer positively whether there was or not.

X 10. What is your best recollection?

4935 A. Well, I can't tell you; my impression is, however, that there was a house on the S. E. cor. of the block, but am not positive whether it was built at that time or not.

X 12. What improvements, if any, was on the block directly west of where you say this well was located?

A. Think it was entirely vacant; there was no improvements on it, I think.

X 13. What year was that block fenced in?

A. Can't tell you.

X 14. Who lived in the N. E. cor. of block 7 at that time?

A. Don't know whether the Deering House was built then or not; I know the Allen House was built where Phillipps now lives.

X 15. Who put this well down?

A. Don't know their names; strangers to me.

X 16. How many were at work at the well?

A. Don't remember the number; perhaps two or three; I know there was quite a crowd there part of the time looking at them.

X 17. Did you know any of the men at work at that time?

A. No, sir.

X 18. How long were you there at the time you saw them putting it down, and what part of the making of this well did you see?

A. I can't remember the length of time; was there two or three times; my recollection is that I saw them driving the tubing in the ground.

4936 X 19. Did they stand on the ground when they drove this tubing. And, if not, state what arrangement they had.

A. I do not remember as to that.

X 20. Did you see the point to this tube they put in the ground?

A. I presume I did, but I can't tell you positively now.

X 21. Will you swear positively that you did see them drive the tube with a maul or sledge?

A. No, I would not positively.

X 22. Are you sure Blondin was a member of that cricket club?

A. I am not positive, but I think he was.

X 23. Are you certain Blondin and White went to the war with Capt. Lee's Co.?

A. Am not positive about it either, but they went either with Lee or Noble; I think it was Capt. Noble got up a company here, but won't be positive about that, but I think I am not mistaken about it—twenty years is a good while to remember these things.

X 24. Did you know T. H. Tyson at the time you saw this well?

A. Don't remember that I did; I might, however, have known him at that time.

X 25. What was said at the time this well was put down about it, if anything?

A. Oh, I don't remember; there were a great many things said, but I don't remember so as to relate anything.

4937 X 26. Was it put down as an experiment?

A. That was the general opinion, I think, but don't know positively.

X 27. Have you not heard a good deal of talk about this suit or the driven-well suits during the last year or two?

A. Yes; some.

X 28. Has there not been a good deal of excitement in this locality among the inhabitants about this claim laid for royalty on the driven wells?

A. Yes; there has been considerable talk; don't know but there has been considerable excitement in town among a certain few; the most excitement that I have heard of has been among the farmers that have come in here. There has been several meetings that I have heard of.

X 29. You sympathize with this opposition to the collection of royalty?

A. No particular sympathy either way as I know of.

X 30. After these men went into the service did you go over on that side of the river as frequently as you did before?

A. Well, I can't remember as to that.

4938 X 31. Can you state positively that there was not any cricket playing on those grounds after these men left?

A. I cannot, but don't think there was.

X 32. State, then, as near as you can, how frequently you observed those grounds after these men left.

A. Don't know as I had any occasion to observe them at all only as I was walking over on that side of the river occasionally.

X 33. Then might there not have been playing on those cricket grounds frequently after these men left and you not know anything about it?

A. It is barely possible, but I don't think there was.

X 34. Why do you say each time that you don't think there was, if you were seldom on that side of the river, or if there were frequent opportunities for the game to be played and you not observe it?

A. I did not mean to be understood that I was seldom on that side of the river, for the reason that I kept a house and there was hardly a pleasant day, when I was at home, but that I was either riding or walking round town.

X 35. Do you mean to be understood as testifying that you were on the west side of the river every pleasant day during 1861 and 1862?

A. No; I don't mean to be understood in that light; I was driving or riding round town.

X 36. State, as near as you can, how frequently you were on the west side of the river after these men left during 1861 and '2.

A. Can't tell you; probably every few days when at home.

4939 X 37. Did that kind of well that you have described go into general use in Independence right away after this one was put *pow* that you have described?

A. Not that I know of.

X 38. Have you or have you — owned a driven well?

A. I bought a place with a driven place on it, but have sold the place again.

Cross rests.

Redirect:

Int. 1. Did you see or hear of any cricket ball being played in Independence after Lewis, White, Marshall, and Blondin left here?
A. I did not.
Re-D. 2. If there had been a cricket club here after that and they had used this same ground would you have been likely to have heard of it?
A. I think I would.
(Signed) J. H. CAMPBELL.

Subscribed and sworn to before me this 29th day of M'ch, A. D. 1880.
[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

4940 Met pursuant to adjournment on Tuesday, March 30, 1880, at 10 o'clock a. m.

S. S. ALLEN recalled:

Int. 1. I have been told that in your cross-examination, when you were on this stand before, you made some statement in regard to a cricket club that had an existence at Independence about the time you saw this first well that you testified to, and that you remember that the well was there while this cricket club was in existence; such statement was made while I was absent from the room, and was not taken down by the examiner. Is such the fact?
A. I did make such statement, but whether it was during cross-examination or after it was finished I cannot now say. It
4941 was while Mr. Lake was out of the office. Some questions was asked afterwards; don't recollect who asked them.
2. State whether you knew of the existence of a cricket club in Independence about 1859, '60, and '61.
A. There was such a club in existence about that time.
3. Give the names of the members, as far as you now recollect them.
A. Carl White was one; I think A. B. Lewis was another; well, there was a Jones—I think J. C. Jones; well, I could not swear to any more; their names were on the books; most all the boys in the streets played there then.
4. Did you know C. F. Herrick and W. S. Marshall, Phil. Bartle, Thomas Blondin, and T. J. Marinus at that time?
A. I did.
5. State whether they were members of that club at that time.
A. They were most always there and played a great many games, at least, on the grounds; I think they always called Herrick captain.

4942 6. Now, state what occurred by which you remember this well being there when the cricket club was in operation.

A. Because they always got water at my well until this well was drove—my well being the nearest to the place—and after that went to this drive well for their water.

7. Do you know what became of Carl White, A. B. Lewis, W. S. Marshall, and Thomas Blondin? If so, state.

A. They enlisted and went off to the war.

8. In whose company did they go?

A. Think some of them went with Capt. Lee; I don't recollect particularly.

9. After White and Lewis and Marshall went away to the war was there any cricket played on the grounds where Z. Stout now has his residence?

A. The books of the cricket club, or one at least—a record—was left at my house and remained in my possession until the great fire in Independence in 1874 or '5, when it was burned; there was no entries made in that book of any cricket being played after Carl White left it with me; he was secretary; there might have been some cricket played there afterwards, but not by an organized club.

4943 10. Was it before White went away that the cricket club went to this drive well for water?

A. I think it was.

11. Do you now remember any other facts by which you can fix the dates when this well was put down? If so, state fully.

A. I don't know as I do.

Direct rests.

Cross-ex.:

X Int. 1. What business were you engaged in during 1859, '60, and '61 and '62?

A. Real estate business; was loaning some money; rented some farms; speculated in anything I could see any money in; I hardly think I had anything to do with any insurance Co. at that time.

X 2. To refresh your memory, did you not solicit and obtain a risk on that house of Brown's that you said in your previous examination took fire?

A. I don't recollect that I did; I did help the secretary of the Independence Co. get a few risks here at times, but when I could not tell.

X 3. Who was the secretary?

4944 A. W. H. Joslin, but I was not the regular agent of the Co. at that time.

X 4. What was the date of the fire in which this record was burned, the record that you testified about?

A. Could not say further than I have, '74 or '5.

X 5. Did any other parties play ball other than cricket on those grounds during the period you have referred to in your testimony and after White and these other men went away?

A. Base ball was played there for years before and years afterwards.

X 6. You say after this drive well was put down the club got water from this well. Did they cease coming to your house for water altogether before the club broke up?

A. Not entirely, for they sometimes borrowed a pail at my house and got water at both places.

X 7. Did you ever get water from this drive well you have testified about for your house use?

A. Don't think we ever did.

X 8. Did you ever see your neighbors get water there for family use?

A. Don't recollect now as I did.

X 9. What other use, if any, did you see made of the well than furnishing water for these club players and the use of the parties who put it down?

4945 A. Watering horses, and there was most always a cup at the well and most everybody tried it as they went by.

Cross rests.

Redirect:

Int. 1. Do you know where Carl White, A. B. Lewis, and Thomas Blondin now are?

A. Reported to be dead.

2. Do you know where W. S. Marshall now is?

A. His address a year or two ago was Chattanooga, Tenn.

(Signed) S. S. ALLEN.

Subscribed in my presence and sworn to before me by the above-named affiant this 30th day of March, 1880.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Pub.

(End.:) Filed Oct. 20, 1880. E. R. Mason, clerk.

4946 H. F. SILL, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is H. F. Sill; am 44 years of age; residence, Buchanan Co., Iowa; am a farmer.

2 How long have you resided in Buchanan Co., Iowa?

A. About 20 years.

3. Was you engaged in the military service of the Government in the late war, from '61 to '65?

A. I was.

4. In what company and regiment was you in and what position did you hold?

A. I was capt. of Co. "C," 27th Reg't of Iowa Volunteers.

5. During your service was you at any time stationed on the shore of the Gulf or Ocean; if so, when and where?

A. Yes, sir; upon Dauphine Island, to the entrance of Mobile Bay, in March, 1865.

6. How long did you remain on that island?

A. We were there, I think, about 10 days.

4947 7. How far was you encamped from the shore of the Gulf?

A. I should estimate it to be not far from 15 rods.

8. How were the troops supplied with water there at that time?

A. By scooping out what you may term little basins in the sand, which were filled by the action of the tide.

9. How deep were these basins?

A. They would vary from a foot to 20 inches and two feet.

10. How was this water as to being fresh or salt?

A. It was fresh.

11. How high was this island above the level of the water at high tide?

A. I would estimate it to be about 10 feet.

12. How high was the sand above the tide where these wells were that you speak of?

A. There would be hardly any appreciable difference from the beach and where we were using these wells; of course, there was some difference; this island was a sandy formation and was highest in the centre.

4948 13. Do you mean by that that the sand where these wells were located was but a little above the water at high tide?

A. Yes, sir.

14. When the tide was out was there any water in these basins?

A. It fell; the water in these scolloped basins seemed to rise and fall with the tide.

Direct rests.

Cross-ex.:

X Int. 1. When the tide was at its height was the water in these basins fresh?

A. The water in these basins when we used it, as we had to for cooking purposes, was fresh; we always found the water in these scolloped basins fresh; I could safely say yes.

(Signed) H. F. SILL.

Subscribed and sworn to before me by the above-named affiant this — day of ——, A. D. 1880.

[SEAL.] (S'g'd) FRANK JENNINGS.

4949 Adjourned till 1.30 p. m.

1.30 P. M.

Met pursuant to adjournment.
All parties present.

C. H. WRIGHT, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is C. H. Wright; am 39 years of age; reside in Buchanan Co., Iowa; am a farmer.

2. How long have you resided in Buchanan Co.?

A. About 23 years.

3. Was you in the military service of the Government during the late war?

A. Yes, sir.

4. In what reg't and company were you engaged?

A. Company "C," 27th Iowa.

5. Were you at any time stationed along the coast of the Gulf of Mexico; and, if so, when and where?

A. Yes; we were camped on Dauphine Island in the spring of 1865; I think in the month of March.

6. How long were you on that island?

A. Not far from 2 weeks.

4950 7. While on that island how were the troops supplied with water?

A. By digging holes in the ground; we generally, every man or company, supplied themselves by their own means of digging.

8. How deep holes did they dig in the ground?

A. From 1 to 3 feet.

9. How far were these holes from the water in the Gulf?

A. I don't remember as to that, but I should think from 25 to 30 rods.

10. How was the water in these holes affected by the ebb and flow of the tide?

A. We used to dig our wells in the evening with the expectation of finding plenty of water in the morning.

11. When was the tide the highest—in the morning or in the evening?

A. I think it was in the morning.

12. How was the water in the well when the tide was the highest—high or low?

A. The water in the wells was the highest in the morning.

13. How was the water in these wells as to being salt or fresh?

4951 A. The water was fresh.

14. What was the character of the soil in which you dug these wells?

A.. Sandy.

15. How high wasthe surface of the sand where these wells were dug above the surface of the water at high tide in the Gulf?

A. I hardly can tell, but it looked as though it was very near level; it was not over 2 or 3 feet.

Direct rests.
Cross waived.
(Signed) C. H. WRIGHT.

Subscribed and sworn to before me this — day of ——, 1880.
[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

The defendants here give notice that they are through taking testimony at this place until further notice.

March 30, 1880.

(Signed) FRANK JENNINGS,
Commissioner.

4952 & 4953 On the 2nd day of April, 1880, the parties appear at the office of Lake and Harmon, Rickee, West and Eastman appearing for the complainants, and Lake and Harmon appearing for the def't.

Rachel Kimball, *is* produced, sworn, and examined on the part of the defendant, deposed as follows:

4954 Int. 1. What is your name, age, residence, and occupation?

A. My name is Rachel Kimball; am 43 y'rs of age; reside at Jesup, Buchanan Co., Iowa; am a housewife.

2. How was you employed in the winter of 1830 and 1861, and where did you reside?

A. Resided in Independence, and was one of the landladies in White's Hotel.

3. Who kept that hotel at that time?

A. Thomas Sherwood and Chas. T. Kimball (my husband).

4. What time did Charles T. Kimball and Thomas Sherwood commence keeping that hotel?

A. I think it was in October, 1860.

5. When did Mr. Kimball quit the hotel?

A. I think it was about the middle of April, A. D. 1861.

6. Where did you live after he quit the hotel?

A. We moved into a private residence about 2 blocks from the hotel.

7. At any time while you was in the hotel and before you moved out did you hear any conversation in regard to a new method of making a well?

4955 A. I did hear some talk of such a well.

8. State what was said in regard to the way the well was made.

A. I did not hear anything as to how the well was made.

9. State what was said in regard to how they could make a well.

A. I don't remember of hearing anything said as to how it could be made.

10. State what was said about it.

A. It was a conversation I had with Mrs. Sherwood in the kitchen about putting a well in the cellar; she objected; she said it was unnecessary; that that well was the best in town, and she did not want any better.

11. How did they propose to make a well in the cellar; in what way did they propose to make it?

A. I do not know.

Direct rests.

4956 Cross-ex.:

X Int. 1. How do you fix the date when Mr. Kimball quit the hotel?

A. I know from my second daughter, — was born about two weeks after we left the hotel, and that was May 5th, 1861.

X 2. Have you any record of the birth of your daughter, or do you know of any that was made about that time?

A. I have a record of my daughter's birth, made since then.

X 3. Please state when this record was made, who made it, what it is made in, and where that record is now.

A. It was copied in the family Bible about 10 years ago; I gave the dates and my husband wrote them; the record is at our home, in Jesup.

X 4. Did you give the date to your husband at that time from your recollection, or did you have other data?

A. Gave it from my recollection.

X 5. How long were you in the hotel as one of the landladies?

A. From Oct. to the middle of April; I am not positive when we moved in, but I know we moved out the middle of April.

X 6. How long did you reside in the house to which you first moved after going out of the hotel?

A. We went in in April and moved in July, the 2nd year; somewhere about 15 months.

4957 X 7. Were you on friendly terms with Mr. Sherwood during this time?

A. I was; we all were.

X 8. Where did you move to when you moved out of this house you hav just referred to and *and* how long did you remain in that place?

A. We moved into the brick block, opposite White's Hotel, known as the Brewer block; lived there about 2 years.

X 9. During the time you lived in these two places you have described did you visit frequently at the White Hotel?

A. We visited; I don't know how frequently, and were on fr*ei*ndly terms.

X 10. Have you had any conversation recently with any one about this matter or matters to which your attention has been called to-day?

A. I have not, except I have been talking with my husband about it.

Cross rests.

Redirect:

Int. 1. Was your second daughter born within 2 weeks after you moved out of the hotel, in the spring of 1861?

A. About 2 weeks; I think it was 2 weeks from that time.

4958 2. Was it not, then, after the middle of April that you moved out of the hotel?

A. It might have been some after, but I thought it was about the middle of April.

3. What name is this hotel now known by?

A. Merchants' Hotel.

(S'g'd) R. N. KIMBALL.

Subscribed and sworn to before me this 2nd day of April, 1880, by the above-named affiant.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

4959 C. T. KIMBALL, being produced, sworn, and examined on the part of the defense, deposed as follows:

Int. 1. What is your name, age, residence, and occupation?

A. My name is C. T. Kimball; am 49 years of age; reside at Jesup, Buchanan Co., Iowa; occupation, travelling agent.

2. How long have you resided in Buchanan Co., Iowa?

A. About 20 years.

3. Do you know Thomas Sherwood?

A. Yes, sir.

4. Was you ever engaged in any business with him? If so, state when, where, and what the business was and how long you were together.

A. I was. I was in partnership with him keeping hotel, then known as White's Hotel; was in business with him six months, in the years 1860 and 1861, at Independence, Iowa.

5. What time did you commence business with him and what time did you quit?

A. Some time in October, 1860, and sold out to him and left the hotel the last of April, 1861, and moved out of the house.

4960 6. Look at the receipt here shown you—Defendant's Exhibit "F"—and state whether that paper and signature is your handwriting.

A. The writing of the receipt is not my handwriting; the signature is.

7. State, if you know, whose handwriting the receipt is made in.

A. Thomas Sherwood wrote it in my presence and I signed it.

8. For what was that receipt given?

A. It was the balance due me on the settlement of my interest in the hotel when he bought me.

9. Was that receipt given the time it bears date—April 27th, 1861?

A. Yes, sir; it was given about the last day I was there.

10. About the time you left the hotel did you see or hear anything in regard to the method of making a well, which method 4961 was new to you and attracted your attention by reason of its novelty?

A. Yes, sir.

11. State what you heard and what you saw; give the matter in detail and as full as you can.

A. A gentleman stopped there, a guest of the house, and stayed there two or three days early in the month of April—1861, the last day of March; in forming his acquaintance he told me he had an iron pipe that he could drive into the ground and fasten a pump to

it in a few minutes' time and pump water; he took me down into the basement of the hotel and opened a wooden box; in this box was sections of galvanized iron pipe, resembling gas pipe, in pieces about 3 feet long; he showed me sharp points that he screwed onto another piece and then told me they would drive this into the ground and add on sections until they struck water; the next day or day after he wanted to show me what he could do; we put the box onto a team and went across the river and I went with him; we went and got two horses and sledge or maule, I forgot which, and drove down several feet, fastening on more pipe so that he
4962 had to get onto these horses or plank to drive the pipe down.
I went back to the hotel before he had completed it; the next day I went over with him again and saw them pump water — an iron pump, a pitcher-mouthed pump, and saw them pump water out of the well; this well was made on the south side of Main street near the N. E. cor. of what is now the property owned by Stout, the Woodward place, either on that lot or in the street east of that block; the gentleman stayed there two or three days and then went West. I have not seen him since that I know of.

12. What buildings or improvements were on this block now occupied by Z. Stout at the time this well —?

A. I don't think there were any buildings on the block nor any improvements.

13. What buildings or improvements were on the block east of the one where Z. Stout now lives at the time this well was made?

A. Nothing very near. I think Tom Tyson's house was there; nothing on the block east of Stout's block.

14. Have you any date by which you fix the time when this man put down that well? If so, state what it is.

A. It was the last days of my keeping the hotel.

15. Have you ever been in company with Thomas Sherwood since that time in business?

A. No, sir.

4963 16. Was you ever engaged in any business in partnership with him before that time?

A. No, sir.

17. Did you ever keep the hotel then known as White's Hotel at any time other than when you were in partnership with Thomas Sherwood?

A. No, sir.

18. Did you ever live in that hotel at any other time than when you were in partnership with Thomas Sherwood?

A. I boarded there 2 or 3 days once with my family.

19. When was it that you boarded there with your family with reference to when you kept the hotel?

A. It was 6 or 7 years after I kept the house.

—. Who kept the hotel at the time you boarded there?

A. Burr Bros.; it was then called the Burr House.

21. What name is that hotel now known by?

A. Merchants' Hotel.

22. When this man commenced making his well on the west side of the river, state what he did first in regard to the matter.

A. He drove down a blunt piece of iron foot and a half long or 2 feet, and then fastened another piece to it and drove down.

23. State whether there was any digging done before he commenced driving.

4964 A. No.

24. When the well was completed was there any hole in the ground outside the pipe he had driven in?

A. No, sir; I think not.

25. How high was the top of the pump above the ground as you saw it the next day, as you say he made it?

A. Three or 4 feet high.

26. What was the size of the pipe that he used?

A. An inch and a half or 2 inches, as near as I can recollect.

Adjourned until 1.30 p. m.

1.40 P. M.

Met. All parties present.

27. How deep into the ground was this pipe driven?

A. I don't know.

28. Did you pump water at the well? If so, state how many times you pumped there.

A. I pumped water the next day or the day after; never remember of pumping but once.

29. Did you see others pump there? If so, how many times?

A. I can't cite to any particular time when I saw any one pumping.

30. How was the water as to being plentiful when you pumped?

4965 A. There was enough. I did not pump much—enough to satisfy my curiosity about the well.

31. Did you know of any other well being put down near this same place that was similar to this well that you have described?

A. Yes, sir.

32. Did you see the other well made there?

A. No, sir.

33. When was it that you saw this other well?

A. Two or three years after this.

34. What kind of a looking well was that one?

A. It had the appearance of being a drive well, with an iron cistern pump attached.

35. How far was this 2d pump put down from where the first one was put down?

A. 8 or 10 rods east, I should say.

36. At the time this 2d well was put down was there any building on the block east of the block where Stout now lives?

A. I think there was.

37. Whereabouts was this building?

A. On the S. E. cor. of the block.

38. Was that house there when the first well was put down that you have described?

A. I think not.

39. How long did this first well remain there?

4966 A. I don't remember; don't remember when it was taken up.

Direct rests.

4967 Cross-examination:

X Int. 1. What business did you engage in after you sold out to Sherwood?

A. The next season I manufactured and sold brooms.

X 2. What other business was you engaged in at the same time?

A. No business that season that I know of.

X 3. Who was engaged with you in the broom business?

A. John Alvord.

X 4. Where is he now?

A. I don't know.

X 5. What business did you next engage in and who was with you, if anybody?

A. I did not do anything much the next year or two.

X 6. What years were these you were not doing much of anything?

A. 1862 and '3, I guess.

X 7. Where were you during these years '62 and '3?

A. At Independence.

X 8. Did you not do any business, trading of any sort, during these years?

A. I kept livery stable awhile during that time.

X 9. Who with?

A. With Joseph Sullivan and Henry Edgecomb.

X 10. What part of this time was you in the livery business?

A. About six months with Joseph Sullivan and 4 months with Henry Edgecomb.

X 11. When did you commence with Sullivan?

4968 —. The winter of 1862; I think the fore part of the winter.

X 12. When did you commence with Henry Edgecomb?

A. In the fall of 1862.

X 13. Were you in the habit of going to the hotels frequently during the falls of 1861 and '62?

A. Yes, sir.

X 14. Frequently around the White Hotel in particular, were you not?

A. Montour and White House, both.

X 15. What did you next engage in? Give the date and commencement.

A. I sold the right of broadcast seeder and cultivator; sold it at intervals for some years.

X 16. Was you engaged in any other business at that time or selling any other patent right?

A. Sold a riding plow.

X 17. Anything else in the same period?

A. No, sir.

X 18. Was there any one connected with you in this business; and, if so, who?

A. Yes, sir; Charlie Hoyt, Allen Few, J. C. Jones, Charles Blondin, William G. Cummins, W. H. Godfrey, Kendrick, Thomas H. Tyson, Furbush, Webster, Cone.

X 19. In what manner were these parties connected with you in the business? Explain fully.

A. Working with them and dividing our earnings.

X 20. What was the next regular business you engaged in, and when?

4969 A. In 1873; went as contracting agent for W. W. Cole's circus.

X 21. How long was you engaged in that occupation?

A. One season.

X 22. What did you next engage in?

A. General agent of Burr Robbins' circus in 1874; was with them 4 years.

X 23. State what you were engaged in since that time and what you are now engaged in.

A. General agent for the New York circus.

X 24. When was your attention first called to this well after this party who you say first showed it to you left?

A. I don't know that I have ever had my attention called to this particular well.

X 25. Then am I to understand you to now state that your attention has not been called to the well where you have located it nor to the circumstances connected with it, to which you have referred in your direct examination, since the spring of 1861 until to-day?

A. I recited the circumstances of this well being put down a year ago this last winter to Thomas Sherwood, in Jesup, asking him if he remembered the man who stayed with us at the hotel when we kept the house at Independence.

X 26. Is that the only time you have referred to the matter with others who have been approached on this subject since 1861 until to-day?

4970 A. No, sir; from a year ago last winter up to now, I have been.

X 27. State who you have conversed with, the times, and what was said on the subject of these wells in question.

A. I have recited the circumstances of this well being put down while I was at the hotel to many of the early settlers of Independence.

X 28. State who you have had any particular or extended conversation with on this subject during the period named.

A. Dr. Warne, T. H. Tyson, Thos. Sherwood, Col. Lake, A. F. Williams, all that I now remember of.

X 29. Do you know the def't in this suit, Geo. Hovy?

A. No, sir; I have seen him for the past years.

X 30. Have you had any conversations with any of the Hoveys on this question?

A. No, sir; never spoke with them about it.

X 31. Describe this man whom you say first showed this box containing the pipe.

A. I don't know as I can; I remember him as being a good talker and a gentlemanly-appearing man; that is the only description I can give of him.

X 32. Who was present when this contents of the box was shown to you?

A. I think John Fargo, but am not positive—at the house.

4971 X 33. What part of the house was this box in when it was shown you?

A. In the office.

X 34. Was it ever shown you in the cellar?

A. Yes, sir; I think we put it in the cellar in the basement under the office room, then used as an office, formerly a saloon.

X 35. Did this man then claim at any time that he had a patent on this well or any part of it.

A. I don't remember of his saying anything about a patent on it.

X 36. How many parties were there here connected with this well; was there more than one?

A. There was this one stopped there; I know of no others; there might have been others.

X 37. Where did this man come from?

A. I think from the State of New York; I have that impression.

X 38. Where did he go to when he left here or where did he say he was going?

A. I think he went West, but don't know.

X 39. Who was present when you were over at the ground where the driving was done?

A. I think John Fargo; Tyson, Trexler, I think, were there; several others, but I can't recite their names now.

4972 X 40. Where did Mr. Tyson live at that time?

A. He lived east of the well; not in the same block.

X 41. Did he live in an old house or a new one?

A. Well, I will say old, because I think he built onto it afterwards on the same ground; I am not positive.

X 42. Where did Mr. Trexler live at that time?

A. On the north side of Main St.

X 43. Was there any blacksmith shop north, across Main St., at that time?

A. Not at that time; one afterwards built there.

X 44. How long afterwards was it that this blacksmith shop was built?

A. I would say a year or two after that time, as near as I can remember.

X 45. Was there any building on the corner of the block, directly south of the Woodward block? I mean the corner nearest the well.

A. Yes, sir; there was.

X 46. Who lived in it at that time?

A. I think Sanford Clark; I am not positive; it might have been some other Clark.

X 47. How came you to take an interest in this well at that time sufficient to watch its construction?

A. It was a novelty to me to hear a man say that he could drive a pipe into the ground and get water, and as a curiosity seeker I wanted to see it done.

X 48. Had you been in the patent-right business at that time or connected with any patent right?

A. No, sir.

4973 X 49. Did this man offer to sell you this well or the right to use it?

A. I don't think he did.

X 50. What did he state to be his object in putting this well down?

A. My impression is that it was an experiment with him. He wanted to introduce it and show what he could do, and asked me many questions about the soil and rock, &c.

X 51. What did he say to you about the soil and rock?

A. He said he could get water where there was no rock to contend with.

X 52. Did the putting down of this well at that time create considerable excitement and attract the attention of most of your people here at that time?

A. There were several on the ground the morning I was there. I don't know what excitement there was afterwards.

X 53. Was there anything said in the newspapers at that time about this novelty or well?

A. I don't know; I don't remember of seeing anything.

X 54. The time you went over to put this well down with the man did you see him start the tube into the ground?

A. Yes, sir.

4974 X 55. Explain or describe particularly the point to this tube.

A. I would think it a round piece of gas pipe, 20 inches or 2 feet long, solid blunt point, with the pipe perforated with holes up about 12 or 15 inches, but not up to the joint; holes about as large as a telegraph wire or the sixteenth of an inch.

X 56. Was this tube attached to the pipe that was left in the well to form the well?

A. I think it was screwed on.

X 57. Was the end of this point open; did it have a wooden plug in it, or was it a solid iron end?

A. Solid, blunt, iron end, I should think.

X 58. How many pumps did he have in this box he showed you?

A. Don't remember of seeing any; don't know where he got his pump.

X 59. How large a box was this—how long, how broad, and how high?

A. 3 or 4 feet long, 8 or 10 inches high, 15 or 20 inches wide.

X 60. Was this pipe that was exhibited to you plain gas pipe?

A. Yes, sir; block-iron pipe.

X 61. Was there any establishments in Independence that kept pumps similar to the one you saw in this tube?

A. I don't know.

4975 X 62. Were you subpœnaed here to give testimony in this case, and did you come in pursuance of a subpœna regularly served?

A. No, sir.

X 63. What induced you to come at this time, and at whose instance did you come?

A. Col. Lake wrote to me once, wanted I should come.

X 64. Where were you when you received his letter?

A. The letter was written to Jesup, Iowa; my wife forwarded to me at Lexington, Kentucky.

X 65. When did you receive the letter?

A. I rec'd two letters—one, I think, in Sept. or Oct., 1879, and another in January, 1880.

X 66. Is that all the communication you have had with reference to your coming here to testify?

A. I received a dispatch at Jesup, on M'ch 31st, to come here April 1st, 1880, from Col. Lake.

X 67. Have you now stated all that has occurred with reference to your coming here to testify in this case?

A. I think I have.

X 68. Are you interested in the result of this suit?

A. No, sir.

X 69. How did you happen to come, then, without being subpœnaed?

A. I think he said it would be less expense for me to come down than it would be for him to come up, and he would pay my expense; that there was a notary here to take the evidence.

4976 X 70. Was this information conveyed to you in a telegram or in a letter?

A. In a letter.

X 71. Do I understand your expenses were to be paid from Lexington, Kentucky, here?

A. No, sir.

X 72. Where from?

A. Jesup, Buchanan Co., Iowa.

X 73. State now, if you please, the exact date or as near as you can when this well was put down.

A. Some time in the month of March or April, 1861.

X 74. You are able to swear positively that that is the date?

A. I am quite positive it was in March or April.

X 75. Is it not possible that you are mistaken and that this well was put down in the fall of 1861 or in the spring of 1862?

A. I am sure it was in the spring of 1861—March or April.

X 76. Have you not stated to-day in Independence, in conversation with T. H. Tyson or others, that this well was put down as late as 1862?

A. Made no such statement to any one.

X 77. Have you not made a statement in Jesup since your return home that you thought the well was put down in 1863; that you were positive it was after the fall of 1861?

4976½ & 4977 A. I have not.

X 78. Have you made that statement within the last 5 years anywhere?

A. Never. I am speaking of this well in particular.

X 79. Is your recollection of the date and circumstances connected with this well better now than it was a year ago?

A. It may be better now than it was a year ago.

X 80. Explain, if you please.

A. I am reminded by circumstances which happened at or near that time of late which makes me more positive as to dates.

X 81. I now ask you if that is your signature (paper here shown witness).

A. That is my signature.

X 82. Did you not, then, on the 24th day of May, 1879, subscribe and swear to an affidavit in which you state that the well in question you saw, you think, in the summer of 1863; that you are positive it was after the fall of 1861?

A. I will answer that by saying the well referred to in the affidavit was the well which stood on Presbyterian church ground in 1863 or 1864, and is not the well I have testified to as being put down in 1861.

4978 X 83. Then you state, do you, after reading this affidavit and refreshing your memory therefrom, that the same refers to a well put down at a later date at the Presbyterian church?

A. I don't need any refreshing of memory about it; I say this affidavit refers to a well put down at a later date near the Presbyterian church.

X 84. When was this well put down near the Presbyterian church?

A. I don't know when it was put down; I pumped water from it; I should say it was in 1863 or '64, or might have been '65; I can't say; I did not see it put down.

X 85. At the time this affidavit was taken did you not relate to J. Q. Royce and others the circumstances of the stranger coming here — the tube, pump, and other matters connected with the putting down of the well substantially as you have described and related the same in your testimony to-day?

A. I presume I did.

X 86. Will you explain, then, why you now state that this affidavit referred to the well put down at the Presbyterian church later?

A. This well at the Presbyterian church was the well enquired of me when I gave that affidavit by its location.

4979 X 87. You say you did not see that well made. Did you ever hear how it was made?

A. No, sir.

X 88. You did know, then, that the well on the corner was made by driving down an iron tube and screwing on the top of said tube an iron pitcher pump, but you did not know anything about how the other was made. Is that the fact?

A. I saw one well partly made and did not see any portion of the other made. I don't know how they made the 2d well.

X 89. Was this 2d well a great curiosity at the time it was put down, and did it attract the attention of the community the same as the 1st well did?

A. I did not see it put down.

X 90. You say the well your attention was called to at the time you made this affidavit was the well at the Presbyterian church, some 5 or 6 rods east of where you say the 1st well was put down. If that be true, how came you to locate it on the N. W. cor. of the N. W. lot of that block?

A. There is where the well stood.

X 91. There is where what well stood?

A. The well described in the affidavit.

X 92. Then it is a fact, is it, that Mr. Royce and the parties present, who directed your attention to a well, asked you to make
4980 an affidavit in reference to a well put down in 1863, '4, or
perhaps 1865, near the Presbyterian church?

A. Yes, sir.

X 93. Did you tell them you did not see the well put down?

A. Don't think they asked me the question.

X 94. How came you to state, then, that it was an iron tube driven into the ground and a pitcher pump on it?

A. I saw a portion of the pipe sticking out of the ground and saw a pitcher pump.

4981 X 95. Where did you first see a pitcher pump?

A. I don't know.

X 96. Did you observe a patent stamp on either pump on the 1st or 2nd well?

A. No, sir.

X 97. How did you know it was a pitcher pump, then, on either of them?

A. They were what I have heard called a pitcher pump.

X 98. Did this stranger call the one he had a pitcher pump?

A. Don't know that he gave it any name.

X 99. What kind of a season was it that this well was put down—wet or dry?

A. There was no snow on the ground at this time; the summer following the spring was not remarkably wet or dry.

X 100. Have you any distinct recollection as to that matter?

A. Yes, sir.

X 101. What data?

A. I drove to McGregor several times during the summer and had fine roads.

X 102. What did you drive to McGregor several times for?

A. To market my brooms.

4982 X 103. Was this the summer following the spring in which you saw this first well put down?

A. Yes, sir.

X 104. Who did you sell your brooms to?

A. I sold 30 doz. to Homer & Co., of McGregor—traded for groceries. I retailed on the road to and from.

X 105. Did you sell any lot to any other house in McGregor?

A. No; I think not.

X 106. How high were these horses or trussels or boards to stand on that you have described in your direct examination on which the parties stood to drive the tube to the first well?

A. I should think three or four feet high. There were two horses.

X 107. Did you not state in your direct examination that they were 7 or 8 feet high?

A. No, sir.

X 108. About how much time have you spent in Buchanan Co. the last 18 months?

A. About 8 months.

X 109. During that time have you not heard a good deal of talk about this suit?

A. Yes, sir.

4983 X 110. Have you not heard and understood that it was necessary to establish the putting down of this well in 1861 in order to succeed in this suit and beat Green's patent?

A. No, sir.

X 111. You were aware of meetings being held and vigorous efforts made to prevent the collection of royalties on Green's patent, are you not?

A. I have heard so; I don't know anything about it.

X 112. To refresh your recollection, I now ask you if you don't remember being sent for at the time this stranger came here with this appliance to come over to the hotel from where you lived and look at something a stranger had there to exhibit to you?

A. No, sir.

X 113. Will you swear positively, now, that is not the fact?

A. I will.

X 114. When this stranger left did he take this pump and tube away with him?

A. I think not; I saw it standing there long afterwards.

4984 X 115. How long did it remain there?

A. I know it remained there until Oct., 1861; we watered our horses there.

X 116. How do you fix the date in Oct.?

A. By going by there with a team.

X 117. Did you not go by before and after October?

A. Don't think I did drive by there very frequently.

X 118. Who took the pump up when it was removed?

A. Don't know.

X 119. Did not this stranger offer to sell you territory at the time he was explaining this matter to you?

A. I think not.

X 120. Did you hear him try to sell it to any one or the right to use it?

A. No, sir.

X 121. Did you see T. H. Tyson at work helping to put down this well at the time it was made?

A. He was there; I don't remember of his working very much.

X 122. How many times was there a tube driven in the ground before they made a well?

A. Don't know; did not see the well completed.

4985 X 123. Was the well completed in one day?

A. Yes, sir.

X 124. Did this party show you any drawing or document in connection with this well?

A. No, sir; I think not.

X 125. State now, as near as you can, the language employed by this stranger when he exhibited to you what he had to show?

A. That he had a pipe that he could drive into the ground and make a well. I doubted it, and he wanted that I should go and see it drove, and I went.

X 126. Did he say it to you or impress you with the idea that this new kind of a well was his own invention?

A. I don't remember that he said anything about it.

X 127. Then he left this town without taking the tube with him and without making any arrangements either to sell it or take care of it, either with you or any one else.

A. He left nothing with me or any one I know of; I saw what I supposed to be the same pump after he left.

4986 X 128. Who put down the 2nd well?

A. I don't know.

X 129. Have you ever heard of the Hovey wells?

A. I have heard of them.

X 130. Have you not heard that this last well you referred to was put down by Hovey or Hovey Bros.?

A. No, sir; I don't know who put it down.

X 131. Were you ever engaged in the well business?

A. No, sir.

X 132. Did you ever see a drive well made except this first one?

A. No, sir; never.

X 133. Did you ever see a well made by boring or drilling or one made in that way?

A. I have seen them boring and drilling for wells.

X 134. When did you ever see them boring? And state, if you know, who was boring.

A. Thompson and Killogg, boring for James Laird at Jesup?

X 135. Did that well differ from the driven well you saw put down, in its appearance, after it was made?

A. Yes, sir.

4987 X 136. When you first quit the livery business who did you sell to?

A. Henry Edycomb.

X 137. Did you keep a book of account- transacted by your firm?

A. Yes, sir.

X 138. What become of it when you sold out?

A. I think Sullivan took it—Joseph Sullivan.

X 139. Do you know where the books, or book, are now, or can you give any information respecting them?

A. Sullivan may have them.

X 140. Whom did you sell out to the 2nd time?

A. To Henry Edycomb.

X 141. Did that firm keep books of account?

A. Yes, sir.

X 142. State what become of them as near as you can.

A. I think they were burned up in the fire.

Adjourned until 7.30 p. m.

4988 Met pursuant to adjournment.
All parties present.

X 143. When did you manufacture brooms? Give the date of your commencing and when you quit that business.

A. On the ground south of White's Hotel, in the building on the opposite side of the street.

X 144. Did you own the ground or did you rent it; if you rented it who did you rent it of?

A. I rented it of a Mr. Coon.

X 145. For how long a time did you rent this ground or place; did you have a written lease; and, if so, what became of it?

A. No definite length of time; I had no lease of it.

X 146. Did you keep a book account of the business transacted during the time you were in the broom business?

A. I don't think I did, more than a pocket memorandum.

X 147. When did you commence and when did you quit the broom business?

A. I bought a chatt*le* mortgage of A. J. Boulay (Bowley) during the winter and closed up the sale of the brooms during the summer of 1861.

4989 X 148. Who gave this chatt*le* mortgage and who was the mortgagee?

A. Coon and Alcord gave the mortgage, payable to Bouley, or Bowley, and Kinsly or a J. Bouley, or Bowley; I won't say which.

X 149. About what time was this mortgage given? Give the date as near as you can.

A. I can't say.

X 150. State as near as you can when the mortgage was due?

A. The mortgage was past due when I bought it; I bought it in the winter of 1861, after the first of January, 1861.

X 151. Have you any books in which original entries of your business transactions were made during the years 1860, '61, '62, & '63?

A. My house burned with all its contents and papers, and have no papers or books for those years.

X 152. Give the date of the burning of your house and books and give its location.

A. Its location was on Main St., on the north side of Main St., the last house next to the river, on the east end of the bridge; I think it was in 1867, but am not positive.

4990 X 153. What information have you obtained respecting this action prior to your being sworn as a witness this day?

A. None.

X 154. Did you not know there was a suit pending against Hovey for infringing Green's patent?

A. No, sir.

4991 X 155. What information have you obtained as to what defendant or his counsel wanted to prove by the well you first located? State fully.

A. None that I know of.

X 156. Did you not have a conversation with Col. Lake this morning in reference to what you would swear to about this well and the dates and other matters to which you have testified?

A. No, sir.

X 157. Did you have no conversation about the matter at all?

A. Yes, sir.

X 158. State fully what that conversation was.

A. As to the date of my moving out of the hotel.

X 159. You were asked to state fully; will you now do so?

A. I don't think of anything more than as to the date I moved out of the hotel.

X 160. What year was the Presbyterian church built that is now on block 3, on the west side of the river?

A. I think in the year 1866 or '7; am not positive.

X 161. How long before this church was built was it that the 2d well you refer to was put down?

4992 A. Put down before commencing to build the church.

X 162. Then it was put down the same year the church was built?

A. The same year they commenced to build it; I don't think it was built in one year.

X 163. What time in the year was the well put down?

A. I don't know.

X 164. What is your best recollection?

A. I have no knowledge of the putting down of that well.

X 165. What time of the year was it that you first saw it?

A. I think the forepart of the summer.

X 166. How long was it after they commenced the formation of the church before it was occupied? Give your best recollection.

A. I am not able to say.

X 167. What is your best recollection?

A. I was away from home the great portion of the time; I can't say; it was more than one and less than two years.

X 168. Is the well you first saw driven more strongly impressed upon your mind than the first steam engine you saw?

A. I think so; yes, sir.

X 169. Is it more strongly impressed upon your mind than the burning of your residence to which you have referred?

A. No, sir.

X 170. What month was your house burned down?

4993 A. I think in February, 1867.

X 171. Are you as positive of these dates as you are of the dates in which you have located that well?

A. No, sir.

Cross rests.

Redirect:

Int. 1. Has not your mind been called to the facts and circumstances surrounding this first well by the statement you have made to others in regard to it, and the affidavit you made for J. Q. Royce that has been shown you, and is not your memory refreshed by these things so that it is more plain to you than those matters that you have not thought of for some time?

A. I think not.

2. Was your memory as good in regard to this first well when you related it to Sherwood as it is now?

A. Yes, sir.

3. When you talked to Col. Lake about it did he suggest anything to you, or did he merely ask you to state what you recollected about it?

4994 A. He asked me what I knew about —. He made no suggestions. I told him what I knew about it.

Adjourned until April the 3d, A. D. 1880, at 8.30 a. m.

APRIL 3D.

Met pursuant to adjournment.

All parties present.

R. D. 4. You stated in your cross-examination that there were two wells made in a similar manner or having a similar appearance put down, one in 1861 and the other in 1863 or '4. Now, where was the 2d well put down? Describe the place as near as you can.

A. The 2d well, I should think, was 8 or 10 rods east of the well that was put down in 1861.

5. Do you know of any other wells being put down in that block similar to these you have described?

A. There was a 3d well on the ground on the N. W. cor. of the Presbyterian church lot.

6. Now, when was this 3d well put down?

A. During the building of the Presbyterian church.

7. To which one of these wells did you have reference to in the affidavit that has been shown you by the counsel for the complainants?

4995 A. To the 2d well; well located 8 or 10 rods east of the well put down in 1861.

R. D. 8. On what part of the block on which the Presbyterian church now stands was this 2d well?

A. It was on the N. W. cor. of the block.

9. How large is the block on which the Presbyterian church stands?

A. I can't say.

10. Wast the 1st well in the street west of that block?

A. It was in the street or on the N. E. cor. of the block west of the Presbyterian church, as occupied by Z. Stout, now known as Woodward block.

11. At the time you made this affidavit that complainant showed you who was present and asked you to sign said affidavit?

A. John Q. Royce.

12. State what was said to Royce about this 1st well and what he said in regard to that well and for what purpose he wanted the affidavit; state fully.

4996 A. He questioned me as to putting down this well in 1861, and then said he would like my affidavit of this well put down later, as it might help in the suit, as it might confound the two wells, and wanted it for that purpose. That he did not care for my affidavit for the well put down in 1861 if I was positive of the well being made in 1861, which I told him I was.

R. D. 13. Who wrote the affidavit shown you by complainants' counsel?

A. John Q. Royce.

14. Did he avoid in that affidavit any allusion to the well put down in 1861?

A. He drew up and destroyed one affidavit which I would not sign, as it described the 1st well with dates of the 2d well, 1863 or '4. Afterwards drew this up, as it might help him in this suit.

15. Who did he say got him to come to you for this affidavit?

A. The att'ys in the case.

4997 16. Did the 1st and 2d wells that you have spoken about have a similar appearance?

A. Yes, sir.

R. D. 17. What kind of pumps were on them?

A. I think those iron cistern pumps were on all of them.

18. On cross-examination you have been asked about the correspondence between the counsel for the defendant and yourself. Now state whether you was intending to come to Jesup to visit your family this spring, and whether that correspondence related to anything more than the time you would be at Jesup?

A. I intended to come home early in April for a few days, having a vacation of 2 weeks, and wrote if they required my evidence they must take it during my stay. The Col. wrote that they would try and take it the last days of March, and would like to take it then if they could. After being at home a day or two I dropped him a postal that I was there.

19. You stated in your cross-examination that you thought John Fargo was present when the man showed you the tubing at the hotel in 1861. Do you now remember whether any one else was present; and, if so, who?

A. I don't remember any one else except John Fargo, and yet there might have been.

4998 R. D. 20. Do you remember anything about Tom Sherwood being there?

A. I don't remember.

21. Had there been any work done on the street between the block now occupied by Z. Stout and the one on which the Presbyterian church now stands, at the time the first well was put down?

A. No, sir.

22. Was there any fence or other thing there to show where the line was between the blocks at that time?

A. No, sir.

23. Was there any fence or other thing to show where the line between the street and the blocks was at the time the 2d well was put down?

A. No, sir.

Redirect rests.

Recross:

Int. 1. How was the 3d well made?

A. I did not see it made.

2. When was this well made?

A. Made while building the Presbyterian church.

4999 R. C. 3. How far was it from the 2d well and what direction, and were they both in use at the same time?

A. About 10 or 12 rods east at the cor. of the Presbyterian church. I don't think the 2d well was in use then.

4. Where were you and Royce at the time this affidavit was made?

A. I think at M. R. Eastman's office at Independence.

5. Was this affidavit read over to you or did you read it over before signing it?

5000 A. I read it over.

6. I understood you to say that you did not see either the 2d or 3d well made and don't know how they were made; is that true?

A. Yes, sir.

(Signed) C. T. KIMBALL.

Subscribed and sworn to before me this 2nd day of April, 1880, by the above-named affiant.

[SEAL.] (S'g'd) FRANK JENNINGS,
Notary Public.

5001 *Testimony.*

In the Circuit Court of the United States for the District of Iowa.
In Equity.

WM. D. ANDREWS, GEORGE ANDREWS, *et al. vs.* GEORGE HOVEY.

On this 27th day of April, 1880, appeared before me, I. S. Struble, a notary public, at my office, in Le Mars, Plymouth county, Iowa, Rickel, West & Eastman, solicitors for complainants, and Lake &

Harmon, solicitors for defendant, and, waiving the time and notice of taking depositions, consent to proceed, at this time and place, to take the deposition of witnesses on the part of the defendant.

Byron Mudge.

BYRON MUDGE, being produced, cautioned, and duly sworn by me to tell the truth, the whole truth, and nothing but the truth in the above-entitled cause, testified as follows:

Int. 1. What is your name, age, residence, & occupation?

A. Byron Mudge; age, 52; residence, Le Mars, Iowa; occupation, book keeper.

Int. 2. How long have you resided at Le Mars, Iowa?

A. Since May 6th, 1878.

Int. 3. Where did you reside in 1867 and prior to that time?

5002 A. In Cortland village, Cortland county, New York.

Int. 4. Were you acquainted with Nelson W. Green; if so, when did your acquaintance commence and how long did it continue?

A. I was; acquaintance commenced in 1859, I think; have not met him since 1865.

Int. 5. Where did Nelson W. Green reside during that time?

A. He lived a little northwest of Cortland village on the road leading from Cortland village to Homer—on the plank road.

Int. 6. Were you and said Green connected together in any capacity in raising soldiers as volunteers for the late war of 1861 to 1865?

A. I was, with several others, voluntarily assisting N. W. Green in drilling men for the 76th Regiment New York Voluntary Infantry, then being raised in that vicinity.

Int. 7. Did said N. W. Green afterwards have any position in that regiment; if so, what position did he have?

A. He did; was colonel of the regiment.

Int. 8. What year and what months were you and Green engaged in drilling men at Cortland village for said 76th regiment?

A. The year 1861 and in the months of September and October.

Int. 9. What time did the 76th Regiment New York Voluntary Infantry leave Cortland village for any other place?

5003 A. In December, 1861.

Witness then answers the interrogatory of complainants' counsel as follows:

A. These papers referred to are memoranda of previous testimony as taken at Cortland village and also at Philadelphia, and are used simply for the purpose of refreshing my memory and for no other purpose.

Counsel for complainants asks the further question, viz: When was this memoranda of testimony taken at Cortland

5004 procured, by whom was it procured, and from what is it taken?

A. I am not able to give the exact time, but it was very soon after the testimony was taken, and what I have was copied by myself from the minutes as recorded by my counsel, Arthur Holmes, in the interference case which was then pending.

Counsel for complainant- asks the further question with reference to the memoranda taken from testimony at Philadelphia, viz: When was that memoranda procured, by whom, and from what was it taken?

A. I have not the date with me; the memorandum does not give the date, but was taken from the testimony as recorded by the commissioner who took the testimony; the memoranda was taken by myself.

Counsel for complainant- asks the further question: Whether the memoranda presented here is a copy of your testimony in full at Cortland & Philadelphia, or whether it is simply a synopsis or digest prepared by yourself.

A. The testimony at Philadelphia, so far as I have it, is in full; I have not all of my testimony as taken at Cortland in full.

5005 Counsel for defendant now asks the witness: Were these memorandums made soon after the testimony was given, and state whether you then recollected what the evidence was, and are the memorandums correct?

A. They were made very soon after the testimony was given; I did recollect what the evidence was and believe the memoranda to be correct.

5006 Counsel for defendant asks further: Have these memoranda been in your possession ever since they were made?

A. They have.

Counsel for defendant asks further: Can you now, after refreshing your mind by the memoranda, remember the facts as they existed?

A. Perhaps the main facts I could. Dates and other items which may be deemed of importance in my present condition of body and mind I would not attempt to give; could not remember. I cannot depend upon my memory for these things, or I would not have brought the papers here.

Int. 10. While you were drilling these men at Cortland village was anything said in regard to some method for getting water for the soldiers in the field? If so, state by whom such matter was first mentioned.

A. There was. The matter was mentioned by Green.

Int. 11. Were any experiments made to test whether water could be readily got from the earth; if so, who made the experiments?

A. There were experiments made by myself.

Int. 12. State, if you now remember, how many experiments you made while the regiment was yet at Cortland village, and where you made them.

5007 A. I made seven experiments before the regiment left camp—one on the premises of Green, one on my own premises, one on the premises of Mr. Tornsley, one on the premises of R. Peck, one on the fair ground, one at Woodruff's, one at Seymour's.

Int. 13. For what purpose was this well made on the fair grounds?

A. As an experiment and to supply the person who furnished rations for the cooking department with water.

Int. 14. State whether said well on the fair ground did supply water for cooking purposes for the regiment; if so, how long?

A. So far as I know, it furnished water until the regiment went away, or as long as it was needed for the purposes of the regiment. To the best of my recollection now, it would be in the neighborhood of six weeks; could not state definitely.

Int. 15. Who was the man that furnished rations to the regiment on the fair ground?

A. J. A. Graham.

Int. 16. Did you see this well in use after it was put down? If so, state about how frequently.

A. I saw it a number of times; not every day, but frequently.

Int. 17. State whether Nelson W. Green saw and knew of this well and of its use?

A. He did.

5008 Int. 18. Was anything said about taking tubes and pipes & pumps along with the regiment for the purpose of making that kind of a well when in the active service; if so, who made the statement? And state as nearly as you can what he said.

A. There was a proposition made by N. W. Green, requesting me to experiment and prepare tools to take with the regiment for their use, and that he would see that transportation was furnished for the same, which last part was never fulfilled.

Int. 19. State whether the tools, pipes, & pump was prepared and whether N. W. Green was notified of the fact; if so, state when, as near as you can, he was so notified.

A. They were so prepared, and Green was notified, I should think, two or three weeks before the regiment left.

Int. 20. State whether this well that was put down on the fair ground was known to many persons; if so, state, as nearly as you can, how publicly it was known.

A. It was known by most, if not all — the regiment and by many people in the town.

Int. 21. Did you ever hear N. W. Green speak of this well to any one? If so, state what he said about it.

5009 A. I heard N. W. Green several times call the attention of different persons to the well; don't know that I can give the precise language he used, but it was in substance—it was a well that Mr. Mudge had put down & seemed very much pleased with it.

Int. 22. State whether this was while the well was in use by Mr. Graham to furnish water for cooking for the regiment.

A. It was.

Int. 23. How was the water in this well at the fair grounds as to being abundant, and what was the quality?

A. There was abundance of it, and quality as good as wells in that vicinity, so far as I know.

Int. 24. How deep was this well?

A. To the best of my recollection, it was 9 or 10 feet.

Int. 25. What kind of a pump did they use on it?

A. It was a cast-iron pump, known as a pitcher-spout cistern pump.

Int. 26. Give the date, as nearly as you can, when this well was put down.

A. Between the 1st & 15th of October, 1861.

Int. 27. How long before that time was it that you made the first experiment that you have stated, about?

A. It must have been 2 or 3 weeks; my recollection is that it would exceed 3 weeks.

5010 Int. 28. Was Nelson W. Green present at any of the experiments you made in September or October or November, 1861?

A. Not to my knowledge, except during the first experiment on his own premises, and then for a few minutes only.

Int. 29. Did any one report to said Green the fact of your making other experiments and the result of such experiment; if so, who made the report? And state, as nearly as you can, what was said.

A. I am not able to state whether such reports were made to Green, but suppose they were made. I could not state, if made, who made them; the fact was known generally or largely throughout the village, and Green, with others, knew of the fact from conversation he had held with different individuals.

Int. 30. Did you at any time talk with said Green about these experiments before you put the well in on the fair ground?

A. I did.

Int. 31. State what you said to him about the result of the experiments that you had made?

5011 A. I said to him at different times that I was experimenting and felt sure I should make a success of it eventually.

Int. 32. When you saw how the well worked that you put in on the fair ground did you consider the well a success?

A. So far as that immediate locality was concerned, I did.

Int. 33. What kind of soil did you go through to get water in making that well?

A. The soil for some distance from the surface was not a very compact soil; farther down it was more solid and gravelly, and, I think, we passed through some shallow streaks of sand or sandy soil before finishing.

Int. 34. What kind of soil did you find water in in making that well on the fair ground?

A. To the best of my recollection, it was gravelly soil.

Int. 35. What was the object that you wished to obtain by these experiments?

A. The objects of the first experiment were to use the invention, if found practicable, in the army.

Int. 36. For what purpose was it to be used in the army?

A. To obtain water for the use of the men.

Int. 37. Then, if this well on the fair ground furnished an abundance of water and of good quality, what did it lack of being a success as a well?

5012 A. The well was incomplete, as the arrangement of the pipe was comparatively imperfect for constructing a permanent well.

Int. 38. Now, do I understand that the well itself was incomplete, or was it some of the apparatus with which you had made the well that was incomplete?

A. To a certain extent, both.

Int. 39. Explain as fully as you can in what respect the well was incomplete; also in what the apparatus was defective.

A. I consider the well incomplete from the fact that in that experiment the rod was not driven to the extent or bottom of the well from the surface; the pipe was not prepared at the point as subsequent experiments proved would adapt it to different soils.

Int. 40. Now, you may state how that well was made. Describe all the matters as fully as you can.

A. In making that well on the fair ground I used for the first few feet a metal tube perhaps 2½ or 3 inches in diameter, possibly a little more than that; I am not fully positive as to diameter. Inside of that tube I forced a rod down to or into the water, which I
5013 withdrew, and inserted in its place a pipe prepared with a point, the pipe having holes drilled into it for the admission of the water for a few inches from the bottom, and the pump attached to the pipe.

Int. 41. How far down did this metal-ic tube go that you say was 2½ or 3 inches or more in diameter?

A. It may have been four feet from the surface.

Int. 42. What was the size of the rod that you forced down inside of that tube?

A. My remembrance is it was an inch and a quarter.

Int. 43. What was the size of the pipe to which the pump was attached that you put into the hole thus made?

A. To the best of my recollection, it was what was called inch pipe.

Int. 44. How far was it from the surface of the ground down to the surface of the water in this well?

A. My impression is it would be not less than 8 feet.

Int. 45. When did you make a well that you considered a successful well of this kind?

A. In 1862 I made what I considered a success—made several of them.

Int. 46. State for whom you made the first one that you considered a success, and describe how you made it.

A. The first well which gave me satisfaction was put down
5014 for J. C. Pomeroy. I used the same pipe that was prepared to take with the 76th regiment. In making that well, changing the point of the pipe a little, drilling a larger number of holes to admit the water, there was no other change made. I drove a rod most of the way, and after getting the pipe down, when I supposed it would make a permanent well or give me a sufficient depth of water, fearing that it might not prove deep enough, drove the pipe until I was satisfied that I would have an abundance of water—it may have

been driven two feet; I am not definite as to the exact distance—and attached a pump to the top of the pipe.

Int. 47. State whether this well furnished water; if so, how was it as to being abundant, and what was the quality?

A. It furnished water in abundance to satisfy the family so far as I know, and of good quality. I never heard any complaint from it.

Int. 48. How long was this well in use?

A. I could not say. It was in use over two years that I know before I left Cortland.

Int. 49. In what town, county, and State was this well made?

A. Cortlandville, Cortland Co., New York.

5015 Int. 50. Where did Nelson W. Green live at that time, and how long do you know of his living there after that?

A. He was living in Cortland, New York. I think he was living there when I went into the army, in 1864, but am not quite sure.

Int. 51. Do you know of his living in Cortland village after you came out of the army?

A. I do not.

Int. 52. About how many wells did you make or know of being made of this kind at and about Cortlandville after you made this one for J. C. Pomeroy and before you went into the army, in 1864?

A. I have no memoranda here to give me the number that I myself put down. I was experimenting considerably, putting down wells in my own town and in the surrounding towns.

Int. 53. During the years from 1861 to 1864 do you know of any other person putting down this kind of well at or about Cortlandville, New York? If so, state who it was.

A. Wells were put down of this kind by a man who was in my employ as a helper, James Suggett by name.

The direct rests.

5016 Cross-examination:

Int. 1. What kind of wells do you refer to, Mr. Mudge, in your answer as to the number of wells you put down in your own town and the surrounding towns; what name have you for them? And describe particularly what peculiar principle is involved in the operation of these wells different from the ordinary open or dug wells?

A. The wells that I have described are known as the tube well or driven well; I do not claim to be a philosoper, nor to enter into a discussion of the principles involved.

Cross-int. 2. Do you refuse to answer the question?

A. I have no answer to make to the question.

Cross-int. 3. Do you mean to be understood that you cannot or will not answer the question?

A. I mean to be understood that I cannot enter into a discussion of it; my nervous condition is such that I am not able to do it.

Cross-int. 4. Please state what peculiar nervous condition or the ailment is that renders it impossible or injurious to you to answer the question propounded?

5017 & 5018 A. I am suffering from the effect of a wound received during the war, which has effected my whole nervous organization; any unusual excitement unfits me for the time for business or control of my mind as formerly.

Cross-int. 5. Does this affection affect your memory so that you cannot enter into and explain the principles involved in the tube well that you have testified about as you understood it at the time you put down those wells?

A. I do not think it is prudent for me to attempt any explanation, even if I were able to do it, under the circumstances.

Cross-int. 6. Will the answering Cross-Q. No. 1, in your opinion, effect you unfavorably or more unfavorably than the questions which have been propounded to you in the direct examination?

A. I think it would, for the reason that on my direct examination I had memorandum to refer to.

Cross-int. 7. Then it is a fact, is it, that without the memorandum referred to you could not have answered the questions propounded to you on your direct examination?

A. I might have answered the questions without the memorandum, but prefer not to take the risks as to consequences.

5019 Cross-interrogatory No. 1 is now, by the commissioner, read to the witness and his answer called for.

A. I have no answer to make to the latter part of the question further than has already been made.

Cross-int. 8. Are you familiar with the principles involved in a driven well?

A. I think I am.

Cross-int. 9. Please state fully what particular principle is involved in a driven well.

A. I have given my reasons, in answer to questions previously propounded, for not going into detail.

Cross-int. 10. And do you refuse to answer the last question?

A. I do, for the same reasons.

5020 Cross-int. 11. At the time you, with several others, were voluntarily assisting N. W. Green in drilling men for the 76th regiment what position did you occupy in the regiment, if any?

A. I was, as any other citizen, as far as any connection with the regiment is concerned, acting as a drill sergeant in getting the men into practic-, and occasionally assisting the adjutant in writing.

Cross-int. 12. Under whose general orders did you act when you had anything to do with the regiment?

A. Green was in command of the regiment, but I was not under his or any other orders; was not acting under any other orders; was free to come and go as I chose and when I chose. I was only acting when requested.

Cross-int. 13. In whatever you did in connection with this regiment did you not feel bound to obey the orders of Col. Green while you were so acting?

A. As I would if I were acting at the request of any other person I, should feel bound to carry out his request as far as I could.

Cross-int. 14. Did you not go to him for orders at any time while preparing this regiment for the army, and did you not receive orders from him and execute them?

A. I never went to him for orders; if a request be considered an order I received orders from him.

Cross-int. 15. Were these several others who were assisting 5021 voluntarily in drilling and yourself governed by his general directions?

A. Some of those who were drilling were connected with the regiment. As to those who were voluntarily assisting I can only speak for myself.

Cross-int. 16. Did you recognize Col. Green as your superior officer and treat him as such while you were acting with or for the regiment in any manner, so far as the discipline of the corps was concerned?

A. I recognized Green as col. of the regiment, and treated him respectfully as such.

Cross-int. 17. Were you acting under the orders or request of Col. Green at the time you made the first experiment at his house?

A. When Col. Green requested me to experiment he simply suggested that on his ground would be a good place to do so and I went there accordingly.

Cross-int. 18. Were you acting under the order or request of Col. Green at the time you made the first experiment at his house?

A. I was under no orders; was not on a request, but simply on a suggestion.

Cross-int. 19. Please state fully what was said by Col. Green at the time he made the suggestion you say.

5022 A. May it please the court, I don't feel that I can go into transactions that occurred 20 years ago and give every word. I could refer to my memorandum, probably, and give it.

Cross-int. 20. Please state, as near as you can.

A. The substance of what he said was to the effect that I was a mechanic and ingenious, and he would like to have me experiment to see if I could get up something to take with the regiment for the purpose of getting water, and at the same time made the suggestion that I have referred to as to the place of experimenting.

Cross-int. 21. Where was this conversation had?

A. I think in Squires' Hall, Cortland.

Cross-int. 22. Who was present besides Col. Green and yourself?

A. Don't know that I shall be able to give all the names; I. C. Carmichael was one, and F. H. Robinson and A. I. Grover. That's all I can remember now.

Cross-int. 23. What was the occasion of the request of Col. Green to make this experiment?

A. It was about the time the army in the southwest was having trouble to get water; the springs and wells were poisoned, I believe.

Cross-int. 24. Who first introduced this conversation or request — yourself or Col. Green?

A. Green.

5023 Cross-int. 25. What did he say? State as near as you can remember.

A. I have already answered this in an answer to a previous question.

Cross-int. 26. Do you refuse to give any other answer?

A. I have no other answer to give.

Cross-int. 27. Did you have any other conversation with Col. Green at any time on the subject of this experiment other than the one just referred to at Squires' Hall?

A. Yes, sir; he asked me several times how I was getting along with my experiments with my wells—wanted I should let him know when I got my tools ready.

Cross-int. 28. Did you have any conversation with Col. Green with reference to this first experiment or any other at his residence in Cortland previous to the time you made the first experiment? If you did, state how long it was before the experiment was made, as near as you can; who was present, as near as you can, and give your best recollection of what was said on that occasion upon the subject of obtaining water from the earth.

A. I think there was a conversation, in connection with several others, in regard to the subject of getting water—conversation at his house once that I remember; can't say just who were present nor neither can I give the conversation had nor as to how long it was before the first experiment was made.

5024 Cross-int. 29. Did not Col. Green, in a conversation with you, suggest this idea of obtaining water from the earth for the regiment by perforating the earth with a rod or bar?

A. He suggested the idea of getting water from the earth in some way—just how, didn't know; did not go into details, to the best of my recollection.

Cross-int. 30. Did he first suggest this idea of getting water for the regiment to you, or you to him?

A. It was his suggestion.

Cross-int. 31. Will you now swear that he did not suggest the idea to you first of obtaining water from the earth by means of perforating with a rod, tube, or pipe?

A. He suggested that water might be obtained by perforating the earth, but not in detail; it was a matter that he knew nothing about himself and left it to me to carry out the idea.

Cross-int. 32. Did not Col. Green, at the time of suggesting the idea of obtaining water from the earth, illustrate it by using a sharpened lead pencil, holding it in perpendicular position, claiming that if the tube or rod should be forced into the earth and into a
5025 water strata and a pump attached that water might be obtained in some such way?

A. I have no recollection of any such illustration; he claims it in his testimony.

Cross-int. 33. Will you now swear positively that he did not illustrate this idea substantially in that way?

A. I cannot swear positively; I have no recollection of any such illustration.

Cross-int. 34. After making the experiment at the residence of Col. Green did you report to him or communicate to or with him the result of that experiment?

A. I did.

Cross-int. 35. Was he present during the time or any part of the time that you made this experiment?

A. He came onto the ground and was there perhaps five minutes, and then went away.

Cross-int. 36. Was his time entirely occupied with the regiment and in preparing to leave home at that time?

A. I cannot say; I know nothing about his time; how much was occupied with the regiment, nor how much with other matters.

Cross-int. 37. When was this second experiment made and who was present?

A. On my own premises; my brother, Ebenezar Mudge, and Albert S. Rollo; there may have been others.

5026 Cross-int. 38. When was this experiment made?

A. Soon after the experiment made at N. W. Green's; can't give just the time; it was within a few days.

Cross-int. 39. Was that a successful experiment?

A. I obtained water.

Cross-int. 40. Did you report the result of that experiment to Col. Green, or communicate with him about it?

A. Not that I remember.

Cross-int. 41. Did you make this well by driving a tube down into the ground and into the water and by attaching a pump to it?

A. The well was made by using a rod principally and putting the pipe in afterwards.

Cross-int. 42. Please state the diameter of the pipe as near as you can, and whether the pipe was tight in the earth when the well was completed.

A. I can't say distinctly whether it was an inch or inch-and-a-quarter pipe. The well was only put down as an experiment. The pipe filled the hole, perhaps, below three or four feet from the surface; can't just remember the depth, but four feet from the recollection the well was not far from 12 feet deep.

Cross-int. 43. Please describe this point attached to the tube, and how the end of the pipe was prepared to receive the water.

5027 A. To the best of my recollection it was either an iron or wooden plug on the end of the pipe, and holes drilled in the side of the pipe above the point; size of holes may have been a quarter or perhaps $\frac{3}{16}$ of an inch in diameter.

6.10 o'clock p. m.—Not being able to complete the taking of these depositions, an adjournment is made until April 28th, 1880, at 8 o'clock a. m.

April 28th, 1880.

Met pursuant to adjournment.
All parties present.

Cross-examination continued:

Cross-int. 44. Please describe the formation of the earth where you made the well at your place.

A. The earth was quite compact; it was a soil more compact than that at the fair grounds—harder; there was gravel or small stone intermixed with the soil clear down, as far as I could judge.

Cross-int. 45. What was the nature of the soil mixed with the gravel?

A. I don't think there was very much sand in the soil.

Cross-int. 46. When you first pumped water from this well did any sand come up with the water?

A. There was some.

Cross-int. 47. State, as near as you can, how much.

5028 A. I should say, to the best of my recollection, that there might have been a half bushel or more of sand and fine material.

Cross-int. 48. About how long did you pump before the water became clear and fit for use?

A. The water was pumped from the well at different times for 2 or 3 or 4 days; am not able to state exactly how long it was before it became clear; it may have been an hour's pumping before it became clear, as near as I can remember.

Cross-int. 49. Was it in pursuance of the suggestion of Col. Green that you did drive or sink a rod or tube or both at Green's residence?

A. It was at the suggestion that he had made previously that I should experiment and see about getting water; it was at his suggestion that I went to his place.

Cross-int. 50. You say that tools and material was prepared for the regiment and Col. Green notified 2 or 3 weeks before the regiment left. Please state who notified him and in what manner.

A. I notified him myself, personally.

Cross-int. 51. Did you make a final report to him or communicate finally to him before the regiment left the result of the several experiments you had made?

A. No other report than when I told him the tools were ready and I had experimented enough to satisfy myself that it was a success.

5029 Cross-int. 52. When and where did you make this report to him? And state the substance of what Col. Green said to you about this kind of a well, and please state fully.

A. I think I met Green at the time I told him this in the village at Cortland. His reply, as near as I can remember, was, "All right; I will see that transportation is furnished for the tools."

Cross-int. 53. What reply did Col. Green make to you at the time you gave him assurance that you would succeed in your experiments? Please state fully.

A. Shall not be able to give his reply; don't know that I can give the substance of it; we never had much conversation about the well after I commenced experimenting in earnest outside of the camp ground.

Cross-int. 54. You were zealous and anxious to succeed and furnish the regiment, as requested by Col. Green, were you not?

A. I was loyal and anxious to do what I could for the cause of my country.

Cross-int. 55. Do you mean to be understood in your direct examination that Col. Green had only such information respecting the fair-ground well as the community generally had?

A. I don't mean to be understood in that way—supposing that his knowledge of the well would have been much better than people outside of the camp.

5030 Cross-int. 56. Was not the work you did and experiments you made in regard to a well, as testified, carrying out the views of Col. Green, as substantially expressed to you before you commenced any experiment?

A. I don't consider that it was carrying out his views.

Cross-int. 57. Have you not stated in your direct examination and in all your other examinations in connection with the driven well that Col. Green first introduced the subject of getting water for the regiment in some safe way, suggesting the idea of perforating the ground and obtaining water easily in a way to avoid the trouble experienced in the army before on account of the rebels poisoning the streams and wells?

A. I have so stated.

Cross-int. 58. Was that the accomplishment of this and carrying out his suggestions to you that induced you to make these experiments?

A. That was the starting point in the experiments.

Cross-int. 59. In making these wells or experiments that you have testified to, when you had made what you term a successful well, did you in any instance cover the hole at the lower end of the tube with a screen of any kind?

A. Not in any of the wells made before the regiment left the camp.

5031 Cross-int. 60. You say in your direct examination that the object you wished to obtain was in the first place to use the invention in the army. What invention do you refer to?

A. I refer to the method or manner of constructing wells known as the tube or driven wells.

Cross-int. 61. What is the peculiarity of this method? Please describe or explain it.

A. The well is made by driving a rod into the earth to and into the water beneath, where the soil is too compact or of such a nature as to not make it practicable to drive a pipe in the place of the rod; after being withdrawn is inserted a tube, being shod with a point at its lower extremity and with apertures in the pipe for the admission of the water. Where the soil is sufficiently soft the pipe may be driven without using the rod; that is the peculiarity or manner of construction of the well.

Cross-int. 62. Is it necessary, in making a well of that kind, that the earth should be compact around the tube in order to make a successful well?

5032 A. My experience has been only in soils where the earth has been compact around the pipe.

Cross-int. 63. You say you are familiar with the principles of the driven well; I now ask you to answer the last question, No. 62.

A. I have only to state in answer to that that *that* my experience has been only in soils where the earth has been compact around the pipe.

Cross-int. 64. Do you know whether or not it is necessary, in making a successful driven well, that the tube should be placed tightly in the ground or in the water-bearing strata?

A. Not from any experiment that I have made, except as stated before.

Cross-int. 65. Then you wish to be understood as testifying, do you, that you don't know whether or not it is necessary, in making a successful driven well, that the earth should be compact around the pipe or tube or any part of it?

5033 A. I should not consider it a driven well; I cannot imagine how it could be a driven well unless the earth was compact about the tube.

Cross-int. 66. You say you used an outer or about 3-inch tube part way in some cases and put the pipe or tube that formed the well inside of that and drove it down into the water strata and made a well in that way; did you ever continue the outer or 3-inch tube in any case down to the top of the water-bearing strata and force the pipe or tube that formed the well down into the water-bearing strata several feet, and thus make a well?

A. I have not in my mind a recollection of any instance of that kind.

Cross-int. 67. In your opinion could a successful driven well be made in that way, the tube forming the well having been driven a sufficient depth to have the holes or perforations in the lower end of the pipe—say 3 or 4 feet below the top of the water-bearing strata?

A. I have no doubt that water could be obtained in that way; I have no reason to doubt the success of it.

Cross-int. 68. Suppose a tube, such as you have used in your experiments and in making driven wells, should be driven from the surface of the ground into a water-bearing strata lying within two feet of the surface of the ground, this tube being projected 5034 into the water-bearing strata sufficient to reach the water freely with holes in the pipe and point as usually used and a pump attached to the top of this tube, in your opinion would that be a successful driven well?

A. I should think it would be a successful driven well.

Cross-int. 69. Have you not had considerable litigation with Col. Green, one of the complainants in this action, in regard to this driven well or patent?

A. I have had no litigation with Col. Green directly. The Patent Office declared an interference between the patent issued to James Sugget and the one issued to me. Green was a witness in that case. My impression is Green was not a party to that litigation; he may have been; I am not positive now. The decision of the examiner-in-chief was in favor of Sugget; an appeal then was taken and the matter referred to the board of examiners at the Patent Office, who sustained the appeal. It was appealed again by Suggett to the supreme court of the District of Columbia, and his appeal was sustained.

5035 Cross-examination rests.

Redirect examination:

1. Do you know or did you hear of Col. N. W. Green making a well of the kind you have testified about or any experiments toward making such a well while you knew him?

A. I never did.

2. Who employed you to put down the well that you put down on the fair ground at Cortland, N. Y., while the 76 Regiment N. Y. Volunteer Infantry were in camp there in Oct., 1861?

A. Mr. J. A. Graham; Julius A. Graham.

Q. 3. For what purpose did Mr. Graham want this well?

A. He wanted it in his kitchen for use in his cooking department and for general use in the mess-house.

Q. 4. Did he use it for those purposes so long as the regiment was in camp there?

A. He did, so far as I know.

5036–5038 5. Do you know of its use for those purposes for a part of the time? If so, state.

A. I do.

6. In making that well was the earth compact about the tube below the 3 or 4 feet to which the 3-inch tube extended?

A. It was.

7. In making the well at J. C. Pomeroy's was the earth compact about the tube?

A. It was.

(Signed) BYRON MUDGE.

Sworn to before me and subscribed to in my presence by said Byron Mudge this 28th day of April, 1880.

[SEAL.] (S'g'd) J. S. STRUBLE.

5039 In the Circuit Court of the United States, District of Iowa.

WM. D. ANDREWS *et al. vs.* GEORGE HOVEY.

5040 Mrs. E. PARKER, of lawful age, being produced, sworn, and examined on the part of defendant, testifies as follows:

1st. State your name, age, residence, and occupation.

A. My name is Mrs. Emeline Parker; my age is 60; residence, Independence, Iowa; occupation, housekeeper.

2. How long have you resided in Independence, Iowa?

A. We came in September, 1856; have resided here since.

3 Int. Have you all of that time lived in the city; if not what part of the time did you live outside and when?

A. We left the city the spring of 1859 and were absent until the fall of 1861, five years and a half.

4 Int. How far were you from the city at that time?

A. About 3 miles we called it.

5 Int. During the time you have lived here did you hear of a well being made by driving an iron tube into the ground and putting a pump on top of the tube?

A. I did.

5041 6. Did you go to see that well?

A. I rode by the well a number of times, but not to stop.

7. When you rode by it was anything said about the well; if so, by whom and what was said?

A. My husband was present and remarked about the well that he had been to it and drank some of the water, and made some remarks about it being the first he had ever seen.

8. Where was this well located at the time you saw it?

A. As nearly as I can remember, it was nearly opposite where our house now is. Of course, it was all open commons then—not a house beyond Bisbee's. We drove up from the south. I mean the stone building where Bisbee now is. I now live where McKay's blacksmith shop was, on block 22, S. & M.'s 2 addition to Independence. The well was nearly opposite there, on the south side of Main street.

9 Int. What year was it that you saw this well the first time?

A. I think 1861.

10 Int. State the reasons and data by which you fix this date—state them fully.

A. It was before we left the farm, and we left that in 1861. There was a free dinner given over on the grounds about where 5042 Mr. Stout's house is, I think. After Mr. Parker left us he went to take care of his team and saw this well. When he returned he spoke of the well and said he had drank some of the water. When we left the ground, as I said before, we drove by it. That is all I can think of about it.

11 Int. Was any one with you and Mr. Parker that day; if so, who?

A. Mr. & Mrs. Baker were with us; my daughter and her husband.

12 Int. Where did they live at that time?

A. With us.

13 Int. When you left the farm where did they live then?

A. They stayed with us until the first of January, 1862; then they went to housekeeping in a house north of the court-house that we own now.

14 Int. Did Mr. Baker engage in anything after that; if so, what and how long was he engaged in it?

5043 A. He had a clerkship in the court-house under Judge Taber and remained there until August, 1862, and enlisted some time in August; I don't remember the date; I think he came home in May, 1866.

15th Int. Was Mr. Baker away from Independence from the time he enlisted until May, 1866?

A. He was.

16. What time in the year was it that you saw this well?
A. 4th of July.

Direct rests.

On cross-examination the witness testified as follows:

Cross-interrogtory:

X 1. What is your husband's name?
A. Samuel Parker.
X 2nd Int. When did you first leave Independence after you came here in 1856, where did you go to, and who went with you?
A. We left about the middle of March, 1859; we went out northeast about 3 miles. Mr. & Mrs. Baker went with us. We moved on a farm.
X 3. This was in March, 1859, you are sure?
A. Yes, sir; about the middle; I cannot place the day.
4 X. What time did you leave the farm and move back again to Independence? Give the date as near as you can.
5044 A. I think about the first of November, 1861.
5 X. Did you sell this farm when you moved to Independence at that time?
A. It was a rented farm; my husband rented it of a Mr. Reeves, of Waverly, Iowa, at that time.
6 X. What part of Independence did you reside — when you moved in from the farm?
A. N. E. part of the town, on the east side of the river, about half a mile N. E. of court-house.
7 X. How long did you live there?
A. Three years and a half.
8 X. Where did you move to then?
A. We moved onto Main street, about $\frac{3}{4}$ of a mile east of the corner of Chatham, east side of the river. It is where W. W. Gilbert now lives.
9 X. How long have you resided on block 22, where you now reside?
A. Since the 17 of October, 1879.
10 X. How was this well made that you have referred to as being opposite where you now live?
A. All I can say is it was a drive well; I just rode by it, is all I know about it.
11 X. What kind of a pump was on it?
A. It had every appearance of an iron pump; I did not examine it at all.
12 X. How long since your husband died?
A. The 8th day of November, 1879.
13 —. Did you have any conversation with him within a year or two prior to his death on this subject?
5045 A. Not particularly; I heard him speak of it a number of times in conversation with parties he was conversing with.
14th Int. Do you know of his making an affidavit with reference to the date of this well for any parties?

A. I do not.

15 X. At the times your husband has talked to you with reference to this well and the date of it, was your recollection the same as his with reference to the date or did you differ as to the date?

A. I don't think we differed.

16 X. Has the subject of the putting down of this well to which you have referred been frequently mentioned in your presence within the last two or three years?

A. No; it has not often; it has never been spoken of but a few times that I remember.

17 X. Who has spoken to you about it, and what was said?

A. I don't think I can give any names or what has been said about it.

X Q. 18. Is it not a fact that, except you seeing this well as referred to, all you know about it is what your husband told you?

A. Yes, sir; I saw the well and my husband told me, and beside the discussion I heard about it in the house.

19 X. Who discussed it in your house besides your husband?

A. I don't think I can give any names or anything particular about it.

5046 20 X. I will now ask you if some time during the last 6 months one of the counsel for complainants, to-wit, A. R. West, did not call upon you at your residence and inquire of you about a well that was said to have been put down directly opposite to where you then lived and on or about the N. W. corner of the Presbyterian church block, and did you not then reply to him that you had been questioned repeatedly respecting a well in that locality, but that you could not remember any date or data by which you could determine when the well was there; that all that you knew or could remember was that there was a well there once, but you could not tell anything about when; that this was substantially your answer, if not, your exact language?

A. Mr. West did call upon me within a few months past and inquired about this well; I don't remember of replying that I had been questioned repeatedly respecting a well in that locality; I replied to him that I knew very little about it; I don't remember of saying to him that I could not remember any date or data by which I could determine when the well was there; I said that all I knew or could remember was — a well there once; I said to him to
5047 begone with that; I don't know very much about it; I don't remember of saying to him that all I knew or could remember was that there was a well there once.

21 X. Will you now state positively that you did not reply to Mr. West as indicated in the previous question?

A. I don't think I did.

22 X. Do you now refuse to give any other answer to the question?

A. Yes; as nearly as I can remember I don't remember of saying but a little about that affair.

23 X. Have you not heard of litigations concerning this driven well within the last two or three years?

A. I have.

24 X. Have you heard of the attempt of the owners of the patent to collect royalties on driven wells in this locality?

A. I have.

25 X. Has there not been considerable excitement in this locality, caused by the attempt to collect royalties?

A. There has, I presume.

26 X. Do you sympathize (with) those opposing the collection of royalties on well owners, rather?

A. I think the royalty is unjust, if I was to express myself.

5048 27 —. Did Col. Lake call upon you for information respecting the driven well to which you have referred?

A. Yes, sir.

28 —. Did you give him the information you have given here to-day freely?

A. Yes, sir; I did.

29 X. Will you please explain why you would not impart the same information freely to Mr. West when he called upon you?

A. I did not care to have much to say about it, because I never say anything either way.

Cross-examination rests.

Redirect examination:

R. D. 1. Did not Mr. West try to have you say that the time you saw this well was 1865 or 1866; if so, what answer did you make?

A. He asked me the question; I cannot tell just how. I think that was about the year, and I answered him—my impressions are that I said to him—that the well was put in before that time, as near as I can remember what was said.

2 R. D. Did Mr. Lake try to make you state it different than what you- first rememberance was when he called upon you?

A. No, sir.

Redirect rests.

5049–5056 Recross-examination:

ReX 1. Did Mr. West try to make you state different from what your recollection was when he called upon you?

A. No, sir.

Recross-ex. rests.

(Signed) EMELINE PARKER.

STATE OF IOWA, *County of Buchanan:*

Subscribed and sworn to before me and in my presence by Emeline Parker this 11th day of August, 1880.

[SEAL.] (Signed) H. W. HOLMAN,
Notary Public.

5057 *Testimony of Dr. Geo. Warne.*

Int. 1. Are you the same George Warne who has heretofore been examined on the part of the def't in this case?

A. I am.

Int. 2. In your testimony on the direct examination you testified to having seen a part of the operation of making a well on or near the northwest corner of block 3, Stoughton & McClure's 2nd add. to Independence, Iowa; now, state in what year it was you saw the first well made at that place.

A. In the year 1860 or '61; in the month of May or June.

Int. 3. Did you at any time after that see another well put down near the same place? If so, state when the other well was put down.

A. I saw another well put down on the same ground & near the same place in the year 1865 or 1866.

Int. 4. So far as you saw these two wells made, what was the difference in the method of making them? Explain fully.

A. The first thing that I saw in driving the first well—a man was standing on a box driving a tube or rod of iron into the ground; I was present there five minutes, probably; did not see them complete the operation, but saw the same well in operation within 5058 two hours after. The second well, a man had a tube nearly into the ground when I first saw it; when he got it down as far as he wanted it he put inside of the tube a rod with two springs on the bottom springing outwards from the centre of the pipe; he sprung the springs together, placed it inside of the well tube, and chucked it up and down two or three times, as he said, to drive a wooden plug out of the bottom of the pipe; then put onto the inside rod a handle similar to an auger handle and turned it round and round and back & forth, crowding it downwards, as he claimed, to stir up the water and sand and gravel so that he could pump out the fine sand; after turning it round to his satisfaction he commenced to draw the inside rod out and kept turning it round until he got the springs back into the pipe; then he withdrew the rod from the pipe, put on a pump, and proceeded to pump roily water and sand; that is all I saw at that operation.

Int. 5. At the time this first well was made was you acquainted with J. M. Chandler? If so, state where he lived at that time, if you know.

A. I do not know where he lived; I was acquainted with him.

5059 Int. 6. At the time this second well was made did you know J. M Chandler and where did he live at that time?

A. I knew J. M. Chandler, but I couldn't place his residence.

Int. 7. At the time the first well was made did you know Thomas Sherwood? If so, state in what business he was then engaged.

A. I know Thomas Sherwood; he was the keeper of White's Hotel, now called the Merchants'.

Adjourned from 11½ a. m. to 1 p. m.

At 1 o'clock p. m. parties met pursuant to adjournment.

Parties present as before.

Examination of Dr. GEORGE WARNE resumed:

Int. 8. At the time this second well was put — who kept this White's Hotel, now known as the Merchants' Hotel?

A. I do not know.

Int. 9. State whether or not Thomas Sherwood was keeping this hotel at that time.

A. I do not remember.

Int. 10. While you was present at the putting down of the
5060 first well you have described did you see any springs there
like those used at the putting down of the second well?

A. I did not; never have seen the same springs used only in that second drive — made in 1865 or 1866.

Int. 11. Do you now know the name of any of the parties that put down the drive well in 1866?

A. Only by common report.

Int. 12. State who, according to the common report, were the parties, as far as you know.

A. Charles Brown.

Int. 13. Do you know of said Brown selling any territory while here; and, if so, to whom did he sell it?

A. J. M. Chandler & J. B. Turner said they bought the right of State of Minnesota; Archampaugh traded for some territory, I do not know what.

Int. 14. I will ask you now to look at the drawing here shown you, which purports to represent an earth auger patented by M. C. Chamberlain, and ask you to state whether the knives shown at the bottom of the design represent the springs as you saw them in use in the making of this second well.

5061 A. They do not.

Int. 15. In what respect do these knives differ from these springs you saw at that time?

A. The springs I saw at that time were each on opposite sides of the rods and spring outward from the centre of the rod.

Int. 16. Which way were the bottom of those springs turned in the rod that you saw?

A. Sprung outward; they were not bent on the bottom as in the figure set forth here.

Int. 17. Explain to what this figure that you refer to is attached.

A. This figure of the patent issued to M. C. Chamberlain is not the same as the knives on that pump in the well that I saw made in 1865 or 1866.

Int. 18. You stated in your direct examination that you saw another on this same block, *on the same block*, at the time — Presbyterian church was built; state now who put down that well.

A. I did not see that well put down,. but Mr. Hovey claimed that (he put) it down. His first name is "E. S."

Int. 19. Returning now to the first well that you saw put down, did the parties at the time explain how they made it, or was the manner of making it kept a secret by them?

5062 A. They did not explain anything to me; they only said they were making a well.

Int. 20. After the well was made did you hear it stated how they did make it?

A. No, sir.

Int. 21. Was there any claim by anybody that it was a secret process, or did they do the work openly and have it for the inspection of everybody who was a mind to see it?

A. When I first saw them they were driving this tube into the ground in open, broad daylight, and said they were making a well.

Int. 22. State whether there (were) many persons there looking on.

A. To my best impression there was no one there but the two persons driving the well.

Direct rests.

X:

Int. 1. At the time you saw the second well that you have described what improvement, if any, was there on the block on which the well was placed?

A. There was a small house near where the second was

5063 driven, and the house on the southeast corner of the block.

Int. 2. Who lived in the house on the southeast corner of the block at that time?

A. I think Mrs. Scott.

Int. 3. Who lived in the small house?

A. Walton Hill.

Int. 4. Locate this well on the block, as near as you can.

A. Some 25 feet from the north line of the northwest lot and 20 or 25 feet from the west line.

Int. 5. Was there any platform under this pump?

A. No.

Int. 6. Were the streets in that addition at that time built upon or fenced in that locality so that the lines of the streets could be easily defined by one passing?

A. They were not.

Int. 7. Were they in 1861?

A. They were not, and the house in question—the small house—was not built in 1861.

Int. 8. What, if any, improvements were on block 22 at the time you saw the second well?

A. There was four small dwelling-houses on block 22.

5064 Int. 9. Who occupied these houses at that time?

A. John E. Trexler; the other parties I do not know.

Int. 10. What year was it that you saw this second well?

A. I have stated in my direct examination it was in 1865 or 1866; my answer is now the same.

Int. 11. Was there a blacksmith shop on the corner of that block at the time you saw this second well?

A. There was a blacksmith shop on the corner, but I can't locate the year it was put there; I cannot locate the time that the blacksmith shop was put there.

Int. 12. How near to the corner, on the corner, on the west line of block 22 was there a dwelling-house?

A. A dwelling-house was on the east side of the corner lot, probably within 3 or 4 feet of the south line.

Int. 13. Was there any improvements of any kind—building or structure—between this dwelling just referred to and the west line of the lot at the time — saw the second well?

A. I couldn't positively say.

Int. 14. What is your best recollection?

A. My impression is that there was an old building used as a blacksmith shop.

5065 Int. 15. Please state now how the block on the west of where the well was located was occupied at the time you saw the second well.

A. I think it was not occupied.

Int. 16. Was it fenced in at that time?

A. I think not; it might have been.

Int. 17. Where did you reside at that time?

A. I resided then and now on lot 8, block 24, Stoughton's & McClure's 2nd add'n to the then village of New Haven.

Int. 18. Where was your office in 1865 or 1866? Was it on the east or west side of the river?

A. At my residence, on the west side of the river.

Int. 19. How frequently did you go from your residence across the bridge on Main street to the east side or Independence?

A. Half a dozen times a day or more, more or less.

Int. 20. In going to the bridge from your residence how near did you usually pass from where this second well was located?

A. From 4 to 5 rods.

Int. 21. Was the Presbyterian church built or in course of construction at the time you saw this second well?

A. No.

Int. 22. Was there any other well on this lot at any time prior or subsequent to the time you saw this second well?

A. Yes; there was several wells there since the second well was there.

5066 Int. 23. Describe them, as near as you (can), all that you know of.

A. They put a half a dozen there last year for experiment. That is the only well that has been put down there that I know of, unless Mr. Wallace has a well. I do not know what kind of a well his is.

Int. 24. Were you acquainted with T. H. Tyson, J. E. Trexler, C. T. Kimball, John Fargo, Frank Fargo, Charles Brown, C. M. Chamberlain, and J. M. Chandler at the time you saw this second well?

A. I am not acquainted with Charles Brown, and I do not know that I am with Mr. Chamberlain; the other parties I know.

Int. 25. State whether or not you saw any of those parties you say you did know at or about the well when you say you saw the parties at work making the second well; if so, give the names of the parties you now recollect of seeing there.

A. I have no knowledge of any of the persons who made the second well or of the parties named being present at — time the second well was made.

X 26. Did you know John West at that time; &, if so, was he present at any time when you saw the well?

A. I do not know John West and do not know of his being present.

5067 X 27. Were you present at the time the Presbyterian church was being erected? Were you in Independence at that time?

A. Yes.

X 28. Did you observe the point of the tube that was driven in the second well?

A. I didn't observe it, because I never saw it.

X 29. You state, in your direct examination, something about some territory being sold to a man by the name of Auchampaugh; please give his first name.

A. John.

X 30. Where did Thomas H. Tyson live at the time you saw this second well put in?

A. I cannot tell you.

X 31. Where did he reside when the first well was put in?

A. I cannot tell.

X 32. Did the putting in of this second well attract the attention of the citizens to any extent? If so, explain, as well as you can, with reference to the extent.

A. I don't think it did.

X 33. You stated, in your direct examination, something about one E. S. Hovey putting a well in that block. What year was that well made?

A. In 1867 or 1868.

X 34. Did you know E. S. Hovey at that time?

A. I expect I did.

X 35. Where did he reside at that time—where did he reside in 1867 or 1868?

A. I don't know.

5068 X 36. How was it with these Hovey wells, with reference to attracting public attention?

A. I don't think it attracted much public attention.

X 37. Was there a large tree near to where the Hovey well stood; if so, about how near?

A. There was a tree, and the well was but a few feet from the tree.

X 38. State how many feet from the tree and in what direction.

A. Five or ten feet from it; west of southwest.

X 39. How long did this well remain there?

A. Several months.

X 40. When was the flouring mill that now stands on the north side — Main street, near the end of the bridge, erected?

A. I don't recollect the year.

X 41. State as near as you can.

A. I state, I don't recollect the year.

X 42. Did you live in what is now known as Independence at the time it was built?

A. Yes.

X 43. Was it built before or after you saw the first well?

A. After.

X 44. About how long after? State as near as you can.

A. Oh, some ten years or twelve years.

5069 X 45. How was the ground occupied on the side where the mill now stands and west of it, including the first block on the west, in the year 1861?

A. There was a small wooden grist-mill and a saw-mill where the mill now stands, about where the west half of the residence now occupied by Mr. Sherwood now stands, and the upright post of the Sauesbier building was on the same block.

X 46. Was there any ball playing of any kind the season you saw this second well on the block west of where the well stood?

A. Not to my knowledge.

X 47. Was there any ball playing on any of the blocks around where this first well was located during the year 1861?

A. In the fall of 1860 or spring of 1861 there was a game of cricket ball on what is now Mr. Stout's residence.

X 48. Did you at any time see any parties playing cricket on that ground? If so, state about how often.

A. I have seen them play cricket ball there a great many times. I used to keep tally for them occasionally.

X 49. Do you know, of your own knowledge, that there was not any ball playing or cricket ball playing on that block in 1866?

A. The most of the cricket players of 1861 having enlisted in the army, I think that was the last cricket games. A great many of them died there.

5070 X Q. 49 further answered: There was no cricket ball playing on that block since 1861. The boys play ball in this town in every open spot they can get.

Cross-examination rests.

Redirect examination:

R. D. 1. In cross-interrogatory No. 9 you was asked who resided on block 22 at the time you saw the second well, and you replied, "John E. Trexler; the other parties I don't know." Is it your recollection that J. E. Trexler lived on block 22 in 1865 or 1866?

5071 A. The question calls to my mind the fact that Mr. Trexler did not live on that place, because I attended him professionally during the high water of 1865 on this side, the east side, of the river; he lived in the Wilcox block.

R. D. 2. Where did J. E. Trexler live at the time you saw the first well put down that you have spoken about?

A. He lived at his residence, in block 22, Stoughton & McClure's 2d add'n to Independence, Iowa.

R. D. 3. Did John Auchampaugh purchase territory of the same parties that sold the State of Minnesota to J. M. Chandler & J. B. Turner?

A. He told me that he did.

Recross-examination:

R. C. 1. After redirect question number one was propounded to you as prepared did you not, before answering the same, leave this room in which the examination is being had and remain absent for a short time?

A. I left the room to urinate and returned inside of five minutes.

5072 R. C. 2. Did you or did you not, after leaving the room, make any inquiry or obtain any information that induced you to change your answer to cross-int. No. 9?

A. I did not. I could have answered the same question in the same manner before I left the room, and should have done it in the same identical words.

R. C. 3. Is it not true that there has been high water a number of seasons since you resided in Independence, Iowa?

A. Yes.

R. C. 4. When did Trexler move to where you say he lived at the time you say you saw the first well?

A. I don't know.

R. C. 5. When did he move away from there?

A. I don't know.

Recross-examination rests.

(Signed) GEORGE WARNE.

Subscribed and sworn to before me by George Warne this 28th day of September, 1880.

[SEAL.] (Signed) JOHN J. NEY,
Notary Public.

5073 JOSEPH B. TURNER, *being* called on the part of the def'ts.

Said J. B. TURNER, being duly sworn, on oath testifies as follows:

1. State your name, age, residence, and occupation.

A. Joseph B. Turner; age, 43; residence, Independence, Iowa; occupation, merchant.

2. How long have you resided in Independence, Iowa?

A. Since March, 1866.

3. Are you acquainted with Joseph M. Chandler; and, if so, how long have you known him?

A. I am acquainted. I have known him since childhood.

4. Where did he reside when you came to Independence, in March, 1866?

A. He lived on the west side of the river, on the second block north of Main street, Independence, Iowa.

5. Did you and said Chandler have any business in company in the year 1866? If so, state what it was.

A. We did; we bought a patent together in company—a process of making a well of the territory of Minnesota; we bought a part of the State; a portion of the State had been sold; they resold a portion.

5074 6. Whose patent was it that you bought?

A. Chamberlain's patent, "M. A.," I think.

7. Look at the certified copy of letters patent and specifications and drawings here shown you and state whether that is the patent of which you and said Chandler purchased the territory for a part of the State of Minnesota.

The counsel for def't shows the witness a certified copy of a patent issued to M. C. Chamberlain, dated January 30, A. D. 1866, numbered 52267.

A. From my best knowledge and belief, I should say that it was; the drawing and cut here—the drawing represents the thing exactly as nearly as I can recollect.

8. Who were the parties of whom you and Chandler purchased the patent?

A. I recollect only one; his name was Brown, Charles, I think.

9. Do you know where this man Brown now is, and what his business now is? If so, state.

A. I know nothing of his whereabouts or his business.

10. Did you see this man Brown and others make a well at Independence, Iowa, about the time you purchased this patent? If so, describe how they made it.

A. I did; they drove an iron tubing, the point, the end; after striking water they drew that tube, removed *removed* the iron 5075 plug, putting in its place a wooden one, then putting a tube down again, then inserting a rod with knives and springs at the end, drawing up the tubing a little ways, forcing the wooden plug and with those knives making what was called a reservoir in the ground; after making a sufficient reservoir and pumping out the sand until we had clear water they withdrew their driving tube, putting down another tube a little smaller and putting down a perforated tube, in length about 2½ feet, with a wire gauze screen inside of the perforations at the bottom, which completed the making of the well.

10. Whereabout in Independence did they make this well, and where was it made?

A. On the west side of the river, on a lot near where the Presbyterian church now stands, in the spring of 1866. I cannot give you the month or day. I have nothing to go by. I have nothing to recollect.

11. Whereabouts did the man stop while here in Independence?

A. I don't know.

12. Do you know who kept the hotel now known as the Merchants' Hotel at that time? If so, state.

A. I think the Burrs.

13. Where did you live in 1861?

5076 A. I was in the U. S. Navy.

14. Was this well that you saw them make at Independence, Iowa, in 1866, the first well of that kind you had ever seen?

A. It was not.

15. When and where had you seen a well of similar construction previous to that time?

A. In Weedsport, Cayuga, New York; also in Cortland, Cortland county, New York; dates I can't give.

16. How long was it before you came to Independence, Iowa, that you saw this well at Weedsport, Cayuga county, New York?

A. The first well that I saw—I should say all of five years, and I do not know but more. I think at a time when I was home on a furlough I saw that well.

17. The five years referred to in your answer, as written, is from what time or to what time? Please make it definite.

A. From February, 1861.

18. I don't think you understand the question. I asked you how long before you came to Independence, Iowa, was it that you saw the well at Weedsport? Now, what I wish to learn is, how many years before you came to Independence did you see this well?

5077 A. My answer was five years or more.

19. When this well was at Weedsport didn't the parties who put it down keep the method of making it secret?

A. I don't think they did.

20. How long before you came to Independence was it that you saw this well at Cortland, N. Y.?

A. As near as I can recollect, about the time I saw the one at Weedsport, as near as I can get at it.

Direct rests.

Cross-examination:

X 1. When was it you first knew of J. M. Chandler's living where you say he lived, on the west side of the river?

A. When I came to Independence, in March, 1866.

X 2. Do you know or did you learn in any manner how long he had lived in that place?

A. I did not.

X 3. Describe Charles Brown.

A. I have no recollection how he looked at all whatever.

X 4. Did you see him?

A. I did.

X 5. Can you describe any of the parties connected with him in this patent matter?

A. I cannot.

X 6. Were you present at any time during the construction
5078 of this well you have described?

A. I was, during most all the construction.

X 7. Who assisted in making the well?

A. The owners, and the other parties I don't know, being a stranger here.

X 8. Was C. T. Kimball around there during the time the well was being made?

A. I think he was.

X 9. Was Thomas H. Tyson there during the construction of the well?

A. I could not say, not knowing Mr. Tyson at that time.

X 10. Was John Fargo present?

A. I don't know, not knowing Mr. Fargo at that time either.

X 11. Were there many persons present during the construction of the well and shortly after?

A. There were quite a number.

X 12. Did this well attract the attention of a number of persons in this locality as a new and novel thing?

A. It appeared to be a curiosity to some.

X 13. Did the well after it was completed produce a full supply of good water?

A. I think it did.

X 14. Did you at that time hear or know of any other well having been put down in Independence similar to that prior to that time?

A. I don't recollect of hearing of any at that time.

X 15. How far from the northwest corner of the block on which the Presbyterian church now stands was this well located that you now refer to?

A. I can't locate the position on the lot, as I was a comparative stranger here.

5079 X 16. Were you shown the patent and a drawing at the time you saw this well made?

A. I was shown the patent or a copy of the patent at the time of making the purchase while at the time the well was made or within a day or two.

X 17. Was the drawing shown you at that time and the one shown you to-day similar in all respects, as near as you can remember?

A. I should say it showed the same principle, but not the same style of cut, the other one being smaller and showing half of a well, I think.

X 18. Did the knives or springs in the cut shown you at the time the well was made differ from the one shown you to-day?

A. I could not say.

X 19. Was the Presbyterian church built or in course of construction at the time that well was made?

A. It was not.

X 20. When did you enter the U. S. Navy?

A. I was in the employ of the U. S. Government at Washington navy yard in 1860.

X 21. When did you first return home after you left and went into the employ of the Government?

A. Some time in January, 1861, I think.

X 22. Was it at that time that you saw the first well to which you have referred?

A. I think it was; it might have been two or three years previous.

X 23. When did you return to the navy at that time, when you was home?

A. I think I remained at home something like a month.

5080 X 23½. When did you next return home?

A. About a year or perhaps more, I think.

X 24. About how long did you remain home on that occasion?

A. From six to eight months.

X 25. Can you remember during what month you were home?

A. Winter and summer months, I think.

X 26. Can you remember dates distinctly at that distant time, or how is your recollection on that point?

A. I can't remember dates; my memory is very poor on dates.

X 27. When did you next return home after the second time to which you have referred?

A. At the close of the war.

X 28. Where was your home, and where did you spend most of your time visiting at times you have referred to?

A. At Weedsport, N. Y.

X 29. Please now locate this first well that you say you saw at Weedsport, New York?

A. I think it was on what is called as the engine-house lot at that time, and afterwards, I think, owned by Nicholas Beecher. It was near the central part of town, near a mill-pond and creek both.

X 30. Who made the well?

A. I don't know.

X 31. How was it made?

A. I don't know that.

5081 X 32. What was it used for, or for what purpose was it put in.

A. I don't know that either.

X 33. Did you hear who made the well?

A. I did not.

X 34. Describe the appearance of this well.

A. What I saw was of common tube projecting above the ground, and was told that constituted the well.

X 35. Was there any platform under the pump?

A. I could not say.

X 36. What name did they have for the well, or what was it called?

A. I never heard any name, only that it was driven in the ground.

X 37. Who had charge of it or control, or who owned it?

A. I don't remember that.

X. 38. Was the well in an enclosure or in an open space of ground?

A. I think the lot was enclosed at that time.

X 39. What is your best recollection as to the year that you saw this well first?

A. Well, sir, I don't know. I can't tell anything about it. I never should have thought anything about it if this thing hadn't come up.

X 40. Can you be positive as to whether it was the first, second, or third time that you were home that you saw this well?

A. I cannot; it might have been before I went South.

X 41. And may it not have been the second or third time that you came home?

5082 A. It might have been.

X 42. When was it that you saw the other well referred to at Cortland, N. Y.? Was it before or after you saw this well?

A. I am not positive; I think about the same time.

Cross-examination rests.

Redirect examination:

R. D. 1. What is your best recollection as to the time you saw this well at Weedsport, N. Y.?

A. My best recollection is in 1859 or 1860, but, as I said before, I am a poor hand to recollect dates.

(Signed) J. B. TURNER.

Subscribed and sworn to before me this 28th day of September, 1880, by the said J. B. Turner.

[SEAL.] (Signed) JOHN J. NEY,
Notary Public.

Defendant's counsel now offers in evidence a certified copy of letters patent number 52267, issued to Malvin C. Chamberlain, dated 30th day of January, 1866, and asks the notary to mark the same on the face "Defendant's Exhibit in Rebuttal No. 1, J. J. Ney, Notary, Independence, Iowa, September 28th, 1880," and attach the same to these depositions, which is done.

5083 The further taking of this testimony is adjourned until 8½ o'clock a. m., Sept. 28th, 1880.

5084 SEPT. 29, 1880.

Parties met pursuant to adjournment.

Parties present as before.

GEORGE HOVEY *being* called on the part of the def'ts. Said GEORGE HOVEY, being duly sworn, testifies as follows, to wit:

1. Are you the same George Hovey that was examined in the direct examination in this case?

A. I am.

2. In your prior examination you testified to seeing a well at Independence, Iowa, that was said to have been made by driving an iron tube in the ground and attaching an iron pump to the top of the same. Now state, if you know, in what year it was that you saw that well.

A. In the year 1861.

3. Have you any data by which you fix the year? If so, state what it is.

A. I have; it is by my son's going into the war—about the time of his going in.

5085 3½. What was your son's name and in what company and regiment did he enlist?

A. His name was Nelson K. Hovey; in Company "C," 9th Iowa Infantry.

4. Did you know any other persons who enlisted in that company and regiment? If so, give their names.

A. I do; George Abbot, Alpheus Losey, and Captain Edward C. Little, I think.

5. When was it with reference to the time when your son enlisted that you saw this well?

A. It was near that time; I think before it.

6. I now show you volume 1 of the adjutant general's report of the State of Iowa as made to the Governor, of date January 1st, 1863, and printed by the authority of the State, and ask you to give the names of your son and the others you have named as they are printed in that report.

A. My son's name is not in full in the report; it is here Nelson Hovey; George M. Abbott is here in this report; Alpheus Losey in this report; Edmund C. Little I find in this report.

7. At what time did your son enlist according to the statement in this report?

A. August 12, 1861.

5086 8. What is your recollection of the time he enlisted without reference to the report?

A. Well, I thought it was in August of that year, but I wasn't positive.

9. State now whether you saw this well at any time when you came to Independence, with reference to your son's enlistment or with reference to the company's leaving Independence.

A. I came to Independence to see the soldiers; it was before they went away; I do not know whether it was this company or Captain Lee's that had left before this, and I saw the well at that time.

10. Where is your son, Nelson Hovey, now?

A. He is at Vermilion, Dakota Territory.

11. State, if you know, where Alpheus Losey, George M. Abbot, and Edmund C. Little are.

A. Mr. Alpheus Losey, I don't know where he lives; in the west part of the State, I suppose; George M. Abbot died in the army; Mr. Little died here in this town.

12. Where did you live in May, June, and July, 1866?

A. In Perry township, Buchanan county, Iowa.

13. Did you, during either of those months, hear of a well being put down at Independence by driving an iron tube in the ground and attaching a pump to the top of it?

5087 A. I did.

14. What did you hear in regard to that well made in 1866?

A. I heard that there was a well drove here in this town, an iron well.

15. Did you see that well at any time?

A. No.

16. Did you see a well that was put down near the Presbyterian church at the time that was built?

A. I did.

17. Who put down that well at the Presbyterian church?

A. E. S. Hovey said he put it in; told me he put it in.

Direct rests.

Cross-examination:

X 1. In your direct examination, to which you have referred, did you not testify to the same matters and things that you have now testified to in this examination?

A. I testified to the same matter—in the same matter, I should have said; I did not testify in my direct that I knew the exact time that my son went into the service.

X 2. Did you, as far as you can now remember, in other respects testify to the same matters and things that you have testified to in this examination?

A. I think I fetched in a name; I think I did not speak of Abbot's name, and I don't know as I did of Losey's.

5088 X 3. With the exceptions named in your two previous answers, did you, as nearly as you can remember, testify to the same matters & things that you have in the examination?

A. I think I have stated in this some points more fully than I did then.

X 4. Is there any other difference that you can now think of?

A. Yes; the year that the well was put in I said I didn't know in the direct examination—in '61 or '62—but it was the year that boys went to the army; now I know it was in '61.

Witness says: I think my answer is full, if I understand the question.

X 5. Except, then, as you have stated, did you testify in your direct examination, to which you have referred, did you testify to the same matters and things that you have testified to in this examination, as far as you can remember?

A. Yes.

X 6. Are you the defendant in this action?

A. Yes.

5089 X 7. Are you certain that it was before your son enlisted that you saw the well that you say was put down in 1861?

A. I know it was before he went into quarters at Dubuque.

X 8. Who was with you when you first saw the well you say was put down in 1861?

A. Elias S. Hovey, John Ganiere, Martin Rust, & B. C. Hale; all I remember.

X 9. Did you all go to the well together?

A. No.

X 10. Where were you when you first saw the well?

A. In a wagon on the street opposite the well on Main street.

X 11. Did you go to the well at that time?

A. I did not get out of the wagon at that time.

X 12. How long was that after the well was put down that you say you saw it?

A. I do not know.

X 13. How was the well made?

A. They said it was a rod drove right down in the ground, or a tube with a pump attached to the top.

X 14. Who said it was a rod driven down in the ground?

A. Well, some man that was there; I don't know who.

X 15. How close were you to the well at that time?

A. I couldn't tell the number of feet; I suppose within 20 or 30 feet of it; maybe less.

X 16. Was the wagon you were in on Main street when you saw the well?

A. It was.

X 17. Where was the man who told you it was a rod driven in the ground when he gave you that information?

5090 A. He stood there near the well.

X 18. State, as near as you can, how many other parties were standing near the well at that time.

A. I don't remember; there was other men stood there, but I couldn't tell the number.

X 19. What else did the man say to you besides what you have stated?

A. I don't remember; there was a great deal said there at the well, but I don't remember what was said, only it was described how it was put in.

X 20. Did this man you refer to own or have any charge of the pump or well?

A. He didn't say that he owned it or controlled it.

X 21. Was there a platform under the pump or any boards around or underneath the pump?

A. No.

X 22. Was the well completed when you first saw it?

A. I suppose it was.

X 23. Did you know any of the parties that you say were standing around the well? If you did, name them.

A. Those that I have named above was there; I don't remember the names of any others.

X 24. What business were you engaged in at that time?

A. Farming.

X 25. What kind of work were you doing on the farm at the time you first saw the well—that is, were you preparing seed, working corn, or harvesting?

A. I do not know just what I was doing that day or day before that I saw the well; the day that my boy enlisted I was stacking wheat.

5091 X 26. What kind of work were you doing or having done on your farm about the time you saw this well—that is, was it the season for preparing for seeding ,the season for working corn, or harvesting?

A. I do not remember.

X 27. How long was it before your son enlisted?

A. I do not know.

X 28. What month was it?

A. I think it was in July, August, or September.

X 29. Was there any buildings on the block on which you saw this well at the time you saw it?

A. I think that the well stood in the street that runs south there between block three & block four.

X 30. Was there any improvements on block three at the time you saw the well? If so, what were they?

A. I don't remember of any.

X 31. Was there a blacksmith shop on the north side of Main street, opposite or nearly opposite to where the well stood?

A. Not at that time.

X 32. How soon after was there a blacksmith shop placed there?

5092 A. I couldn't state how soon; there was one in the course of a few years.

X —. Did you not state in a former examination that you saw this "'61" well while standing in the blacksmith shop across the way?

A. No.

X 33. When did you next see the well?

A. Soon after the first; I can't remember how soon.

X 34. All you know, then, about how the well was constructed or what kind of a well it was was what somebody told you while sitting in the wagon, is it?

A. Yes.

X 35. Was it called a driven well at that time?

A. Yes.

X 36. What year was it you saw the second well?

A. It was in either '67 or '68, I think; I am not positive which.

X 37. Have you seen any notice in any newspapers published prior to 1868 which refers to a tube well or a well made after the manner in which you understand the first well was made, so far as inserting a tube in the ground and attaching a pump is concerned?

A. No; I have not.

X 38. Have you seen any notice published in any newspaper published in Independence, Buchanan county, Iowa, prior to 1868, of any kind of a well? If so, state what it was, when you saw it, and what paper it was in.

A. I have not read or seen any.

X 39. Have you heard from any newspaper any such notice read?

5093 A. I have.

X 40. State when and where, as nearly as you can, and under what circumstances.

A. In Col. Lake's office, three or four weeks ago, I should say; I don't know the day.

X 41. What newspapers was it, & what did the article refer to? State as particularly as you can.

A. I don't know that I know the name of the paper, but it stated of a well put down in '66 on the west side of the river; it said it was an iron well; that is all I have heard about them in the newspapers.

X 42. Have you, as defendant in this action, kept posted as to the evidence taken in this cause as the same was taken, so that you have been informed as to the main points or facts elicited from the witnesses examined?

A. Yes; calculated to.

X 43. Are you a member of an organization formed for the purpose of resisting the collection of royalties under patent owned by these complainants?

A. No.

Cross-examination rests.

Redirect examination:

1. Was this well that you saw in 1861 then named a drive well, or was it merely stated that it was made by driving the tube into the ground?

5094 A. It was stated it was made by driving the tube into the ground.

R. D. 2. Was there any name given to it by the party who told you how it was made?

A. I don't know as there was.

R. D. 3. Which did he say was driven into the ground, a rod or a tube?

A. They said that tube; they said that tube was driven in; they said they drove that tube into the ground, into the water.

R. D. 4. In looking after your interests as a defendant in this case, haven't you found it necessary to carefully watch the proceedings and acts of the complainants and their solicitors?

A. I have.

(Signed) GEORGE HOVEY.

Subscribed and sworn to before me this 29th day of September, 1880, by the said George Hovey.

[SEAL.] (Signed) JOHN J. NEY,
Notary Public.

5095 Counsel for defendant now offers in evidence volume 1 of the printed report of adjutant general of the State of Iowa made to the Governor, of date January, 1st 1863, and printed by authority of the State, especially the roster of Company "C," 9th Iowa Volunteers, Infantry, as showing the dates of the enlistment of the men and the date of entering into camp and the muster into the United States service, and asks the notary to mark the said book "Defendant's Exhibit Testimony of George Hovey, J. J. Ney, notary (public), Independence, Iowa, Sept. 29th, 1880."

5096 GEORGE MANN *being* called on the part of the defendant.

GEORGE MANN, being duly sworn, testifies as follows, to wit:

1. What is your name, age, residence, and occupation?

A. George Mann; 53 years of age, and occupation, fruit gardener; residence, Independence, Iowa.

2. How long have you resided in Independence, Iowa?

A. I came here in spring of '59.

5097 3. Do you know the block of land on which Z. Stout now has his residence, on the west side of the river, at Independence, Iowa?

A. Yes, sir.

4. Do you know of that block having been used for a cricket ground; if so, when was it so used?

A. I know it was used, but I couldn't tell what year.

5. Did you know any of the young men who used to play cricket there? If so, give the names of as many as you can.

A. I didn't—don't recollect only Charley Herrick and two of Bornharts; I didn't know many of the people here then; I hadn't been here long.

6. While that ground was used for playing cricket upon did you see a well near there that was peculiar in its construction?

A. Yes, sir.

7. Describe this well as it looked to you at that time.

A. Well, it looked to me that time, as near as I can recollect,—it was just a pipe sticking out and a handle out of it; I was fool enough to get hold of it and thought I could pump it dry; I know that very well.

8. How long did you pump on it, and could you pump it dry?

5098 A. I could not tell you how long I pumped on it, but I must have pumped considerable; I don't just remember that—I couldn't say—I couldn't pump it dry; I tried.

9. At the time you saw this well was J. R. Kays living in Independence, Iowa?

A. No, sir; I had no relation here, and he is a relation to me.

10. When J. R. Kays came to Independence, Iowa, did you tell him about having seen this well?

A. No, sir; I never said anything at all about it.

11. How long after you (saw) this well was it that J. R. Kays came to Independence, Iowa, to live?

A. Couldn't tell; Kays came somewhere about five or six years after I did; it was in betwixt somewhere.

12. Was you acquainted with J. R. Kays before you came to Independence, Iowa, to live?

A. Yes, sir; I married his sister.

13. What business did he follow while he lived in Independence, Iowa?

A. Blacksmith.

14. Where was his shop located?

A. He built his shop right across the street from where the pump was before he came here; the shop was north of where the pump was.

Direct rests.
Adjourned to 1½ p. m.

5099 Pursuant to adjournment the parties met.
Parties present as before.

Cross-examination of Geo. Mann commenced:

X 1. Explain, if you please, how the game of cricket was played that you say you saw.

A. The game of cricket, I didn't know anything at all about it. I never played it, and didn't know anything at all about it.

X 2. How do you know, then, it was cricket that was being played when you say you saw this well?

A. Well, all that I know they called it. That is all I know. I heard them say wicket sometimes—playing wicket.

X 3. Where did you reside at that time, and what business were you engaged in?

A. Well, I lived southwest, just about half mile of the bridge. I was working at mason work at that time.

X 4. Whom were you working for, and where were you at work?

A. I wasn't working anywhere, I guess. It is hard to tell where I was working, for there was not much mason work to be done at that time.

5100 X 5. Did you own or rent the place you lived in at that time?

A. I owned it; I own it yet.

X 6. When did you buy it, and of whom?

A. The first acre, I bought it of J. D. Meyers, and then after that—I could tell by looking at deeds—I bought three acres of S. S. Allen, but I couldn't tell how long after.

X 7. Was there a building on this property when you bought it; if not, did you build after you bought it; if so, when did you build, and of what material did you build?

A. There was no building on this property when I bought it. I built a kind of shanty, and lived in it till I built what I got. It's a stone building; the stone building; I couldn't tell you the date, but it must be 14 or 16 years ago. The first one, you see, when I came here; I moved here in the spring. I came here with the show; then left here. My wife and family stopped here. Well, I wasn't — until it commenced winter or along before Christmas--some time about the last of November or 1st of December some time; I left the show away down in Mississippi. I boarded that winter and built the shanty next spring.

X 8. Where did you procure the material to build a shanty then?

5101 A. It is pretty hard to tell; I bought some of it at the mill and some of it I picked up; it was bass-wood, most of it.

X 9. Did you see any other kind of ball playing on the block you refer to?

A. Sometimes the boys were playing different kinds of ball when I would be passing from home into town.

X 10. Did you notice the different games or kinds of games particularly that were played on that block?

A. Sometimes when I would be passing they would be playing cricket or different kinds of ball, except one time.

X 11. When was the one time that you except?

A. Once that they were playing this base ball, and I sat down and watched them awhile.

X 12. Was this well there at that time?

A. Yes, sir; the well was there at that time; that was the time that I went at it and pumped.

X 13. Where was this well located?

A. Well, as near as I can recollect, they played west of the pump; there were no houses there at that time, and I couldn't tell whether it was on that street or on one corner of them lots.

X 14. How far from the end of the bridge was it and in what direction?

5102 A. Well, I couldn't tell; it must be from 10 to 16 rods, anyway; the bridge didn't come out so far at that time.

X 15. Was this well near to a large tree?

A. That I couldn't answer it; I don't know.

X 16. What show were you with when you came here?

A. Oston & Older; Older first bought in.

X 17. Was this after you had returned from Mississippi that you saw this well, or before you went there?

A. It was either the second summer or the third summer after I came here with the show.

X 18. Who put down this well?

A. That I cannot tell.

X 19. Who owned it or had charge of it?

A. I couldn't tell; I didn't know any one there; everybody was pumping on it.

X 20. Was it in the charge or under the control of any one?

A. I couldn't tell; I didn't take much notice about pumps at that time, but I know it was a curiosity to me.

X 21. Was it a great curiosity to others; did it attract great attention?

A. I don't know whether it did or not.

X 22. Was there a platform under the pump?

A. Not when I pumped; first a spout that carried off the water.

X 23. Was this trough used for carrying off the water sufficiently large enough for watering stock?

5103 A. No; just a spout under the pump.

X 24. What was the well put in for and what was it used for?

A. I don't know.

X 25. Do you know how it was made?

A. No, sir.

X 26. Who have you talked with about this well in the last three or four years?

A. I talked with Hovey after this pump business came up; I don't know Hovey's name; the Hovey that lives here now is the one; I mean Independence.

X 27. Did he first speak to you about this matter? If he did, state what was said, as near as you can, and when it was.

A. He didn't speak to me about it; I spoke to him about it. I said, You got into trouble about pumps. I said there was a drove well years ago here, and then he commenced asking me, and I told him I didn't know when it was; I didn't know the year.

X 28. Was that a drive well?

A. That I couldn't tell you; I know the pipe stuck out of ground.

X 29. Was it called a drive well?

A. I believe it was at the time; it was called a drive well at the time.

X 30. Do you now, or have you at any time, owned a driven well?

A. No, sir.

5104 X 31. When did you see the next well of that kind and where?

A. The next was at the Presbyterian church; somewhere along there; I could not tell what year it was.

X 32. Was the street running north and south worked any at that time or during that season near to where the first well was?

A. The street was all grassy.

X 33. Then I understand the street was grassy and not broken up that season?

A. It was not broken up that season.

X 34. Was the well at the Presbyterian church or the second well similar in appearance to the first one you saw?

A. Well, it looked to be.

X 35. How long did the first well that you saw remain there?

A. I don't recollect.

X 36. Was the Presbyterian church built or being built at the time you saw the second well?

A. I believe they used the pump to build that church.

X 37. Did you see any well similar in appearance to those you described on the block on which the Presbyterian church now stands after the time you saw the second well near to the church?

A. No; not similar.

5105 X 38. Are these the only two wells you saw of that kind on that block?

A. Yes; them is the only two that I have seen.

X 39. State, as near as you can, what year J. R. Kays built this blacksmith shop on block 22.

A. Well, I couldn't hardly tell, but it was five or six years after I came; I come in '59.

X 40. Did you at any time have any conversation with J. R. Kays with reference to a well made of iron?

A. No, sir; never.

X 41. Now, are you certain that you saw the game of cricket while the first well was where you say it was?

A. That is the only time I ever watched them; I went over a purpose to see them play cricket and this funny well; that is what I went over for.

X 42. Was that the time you tried to pump the well dry?

A. Yes, sir.

X 43. Are you certain they were not playing base ball at that time?

A. I don't know base ball from "tother;" they had three sticks up and a cross piece, and they had a kind of flat club or oval club; that is all I could see difference from base or any other ball; I never played ball.

X 44. Did you see any ball playing on those grounds the year you saw the second well?

5106 A. No; I did not, unless it was some little boys once in awhile; I don't recollect.

X 45. Now, is it not possible that at the time you went to pump this well dry the game of base ball was being played, and that what you have described—that is, the sticks and bats—that you may have seen at some other time?

A. Well, I don't hardly know one game from another. They were playing that game then with wickets, I believe they call them.

X 46. Has not your memory been refreshed concerning this ball playing, cricket playing, by some person in the interests of the defendant in this suit or the defendant himself?

A. No, sir; I never thought of it until last night. Lake spoke to me about coming up here. When I went home I studied the thing over, and it all came fresh in my mind.

X 47. Did Lake say anything to you about the cricket playing?

A. No, sir; nor nobody else.

X 48. What was the nearest house to the well, and who occupied it at that time?

A. The nearest house was the one Jim Kays bought.

X 49. What year was the Presbyterian church built?

5107 A. I couldn't tell you; I might tell to look up and see its date.

X 50. Can you now swear positively that the season you saw this well and the playing that you have referred to was not as late as the fourth season after you moved here?

A. That I couldn't tell you—what year it was at all.

Cross-examination rests.

Redirect examination:

R. D. 1. Are you sure that you saw this well and the ball playing before J. R. Kays moved here to live?

A. Yes, sir; I saw before he came here.

R. D. 2. Did you see a similar well near the place where this first well was within a year or two after he came here?

A. Yes; there was one—I think it was that against the Presbyterian church—after he came here.

R. D. 3. Did you see a similar well right opposite Kays' shop, south, after he came here?

A. No, sir; I did not.

5108 R. D. 4. Did you live in Independence all this time after you saw this first well and until the Presbyterian church was built?

A. I did not.

Redirect rests.

Recross-examination:

R. X 1. What part of the time were you absent from Independence between the time you saw the first well and the building of the Presbyterian church, and was it before or after J. R. Kays moved to Independence?

A. It was after J. R. Kays moved to Independence. I went with Orton three months; that was the second year of the war; this is all the time I was absent, and that was the second year of the war; I don't recollect in what year.

R. X 2. Where was J. R. Kays living—in what building—during the time you were absent with Orton the three months you have referred to?

A. He was living in that building right next his shop, in Independence, Iowa.

Recross-examination rests.

(Signed) GEORGE MANN.

Subscribed and sworn to before me this 29th day of September, 1880.

[SEAL.] (Signed) JOHN J. NEY,
Notary Public.

5109 THOMAS SHERWOOD *being* called on part of def't. THOMAS SHERWOOD, being duly sworn, on oath testifies as follows:

1. Are you the Thomas Sherwood that has been examined on the direct in this case?

A. I am.

2. Was you living in Independence, Iowa, in 1866?

A. I was.

3. In what business was you engaged in 1866 and where?

A. I was engaged in the livery business in the rear of the Montour House, at Independence, Iowa.

4. Who, if any one, was in business with you at that time?

A. T. F. Curtiss.

5. When did you quit keeping the hotel formerly known as the White House or Whites' Hotel, and was known as the Merchant's Hotel, and who succeeded you in that hotel?

A. I quit keeping the house in '64 or '5; the latter part of 1864 or first of 1865; a man by the name of Burr succeeded me.

6. How long did Burr keep the house?

A. I don't know.

7. When you moved out of the hotel where did you live first?

5110 A. I moved in a house standing opposite, across the street from the hotel barn.

8. How long did you live in that house?

A. A year and a half or two years.

9. During the time you lived there did you hear of a well being put down on the west side of the river, known as an iron or tube well?

A. I remember of hearing of a well being put down on the west side of the river; I cannot say whether it was while I was living in that house or not.

10. Did you see the men who put down that well to know them or (?) such?

A. Not at the time the well was put down.

11. Did you see their tubing or apparatus that they used before they made the well? If so, state where you saw it.

A. I did not see it to my recollection.

12. Did you know J. M. Chandler at that time?

A. I did.

13. State, if you know, where said Chandler lived in 1861, when you and Kimball kept the hotel, and where he lived at the time you heard of this well that was made after you moved out of the hotel?

A. He lived in the northeast part of the city in 1861; he moved to the west side of the river, but I don't know when he moved.

14. At the time the well was here, after you moved out of the hotel, did you hear of said Chandler's purchasing territory of the parties having the well?

5111 A. I heard that Chandler or Chandler & Turner had bought some territory up in Minnesota.

15. About how long was it after you and Kimball dissolved partnership before the time that you heard that Chandler or Chandler & Turner had bought this territory?

A. From five to six years.

16. Did you go and see this well that was put down after you left the hotel? If so, how far was that located from where the well was made that was put down while you and Kimball were in the hotel together.

A. I saw the well spoken of; I never examined it particularly; I think it was some five or six rods east, and about two rods south of the former well; that's my recollection of it.

17. After you moved out of the hotel did you go into the basement of that hotel to see any tubing and apparatus for making wells?

A. I have no remembrance of anything of the kind.

18. Do you now know Charles Brown, who keeps a sale stable at St. Paul, Minnesota?

A. I do.

19. Did you see him in Independence, Iowa, about the time you heard of this well being put down, after you left the hotel?

A. I don't recollect seeing him.

Direct rests.

5112 Cross-examination:

X 1. At the time you saw this well that you say you saw after you moved out of the hotel, who was with you, and did you go to where it was on purpose to see the well?

A. I do not know who was with me; I never went particularly to examine that well.

X 2. How far was it from the well to the Presbyterian church?

A. My recollection is some five or six rods.

X 3. How near to a large tree on that block was this well?

A. I should think about three rods west and two rods south.

X 4. Was the small Gooden house standing there at that time; and, if so, which side of the house was the well?

A. I think the house was there, and the well stood east of the house.

X 5. What year was it that you saw that well?

A. I can't tell; it was '65 or '6, I should think.

X 6. May it not have been as late as '67 or '8?

A. I would'nt swear but it was.

X 7. When did you become acquainted with Chas. Brown?

A. Four or five years ago Chas. Brown came to me on the street and said: Sherwood, how do you do? I had forgotten him; I then became personally acquainted with him because I sold him a horse or two—some business.

X 8. At the time you say he shook hands with you did you then remember that you had met him before?

A. I did not, and do not to-day remember that I met him before.

[SEAL.] (Signed) THOMAS SHERWOOD.

Subscribed and sworn to by Thomas Sherwood this 29th day of September, 1880.

(Signed) JOHN J. NEY,
Notary Public.

Adjourned till 7 o'clock p. m., September 29th, 1880.

5113 Parties met pursuant to adjournment.
Parties present as before.

SAMUEL P. MCEWEN, *being* called on the part of the def'*ts*. SAMUEL P. MCEWEN testified as follows, to wit:

1. Are you the same Samuel P. McEwen who was sworn and examined in this case on the direct —?

A. I suppose I am; I don't know of any other.

2. Did you know Joseph M. Chandler in 1861 and in 1866?

A. I did.

3. Where did he live in 1861 and where in 1866?

A. He lived on the east side of the river in '61, and the west side in 1866, in Independence, Buchanan county, Iowa.

4. While he lived on the east side of the river about how far did you live from him?

A. He lived nearly a block west and a block north of where I lived.

5. State whether or not you and he and your families were intimate during the time he lived on the east side of the river?

A. We were very intimate.

6. Do you know how J. M. Chandler was employed during the season of 1861? If so, state what he was doing.

5114 & 5115 A. Well, I think he was acting as constable and gardening at the time.

7. You stated in your direct examination that you saw a well made on the west side of the river in 1861. Now, state if you saw another well near that same place after that time; if so, give the date when you saw the next well.

A. As I said before, it was either '62 or '63 that I saw the next well.

8. After 1863 did you see another well there; if so, when?

A. There was one put down there in 1866.

9. About the time this well was there, in 1866, did you hear of J. M. Chandler's purchasing any territory or the right to make those wells in any territory; if so, what territory?

A. I couldn't tell you for the territory more than he went up into Minnesota some place; he said he got the right to put them in; he did not say about his purchasing. I think Joe Turner went with him in the operation, if I remember right. Joe first came here in that spring. That's the best of my recollection.

10. State whether Joseph B. Turner was here in 1861.

A. I think not.

11. Did you live in Independence continually from 1861 to 1868?

5116 A. It was my home; I was not here all the time.

12. How much of the time and what years was you away?

A. I left in the fall of 1862; come back home the 5th of March, 1863; I was away in fall of 1865 and came back the last of February, 1866; I was in Chicago that winter; I was home the balance of the time.

Direct rests.

Cross-examination:

X 1. When did J. M. Chandler move to where he lived in 1866?

A. I couldn't tell the exact time, but it was some place along in 1863 or '64.

X 2. When did J. M. Chandler move to w here he lived in 1861?

A. He must have moved there somewhere along there in '58 or '59.

X 3. Do you know when he moved there, or do you simply conclude that he moved there at that time from some other circumstance?

A. I don't know positively; he bought a man by the name of Ward, a man who followed teaming around town, out; it was hard times somewheres along about 1858 or 1859.

X 4. You say you saw a well in 1862 or '63; where was this well located?

A. It was located on block three—the block where the 5117 Presbyterian church now stands—near the northwest corner of the block, within ten or fifteen feet from the corner.

X 5. Was it before or after you returned, in 1863, that you saw this well?

A. My impression now is that it was after I came from Marshalltown. I worked in Marshalltown the winter of 1862 and came up in the spring of 1863, and I think it was then I saw the well.

X 6. What were you at work at at Marshalltown? If at your trade, building houses, state what house you built or worked at.

A. I was at work on an elevator for Hayden & Co.

X 7. Describe the appearance of this well you saw in 1862 or '3. State, if you know, who made it, who owned it or had charge of it.

A. It was an iron pipe or tube driven in the ground and a pump put on it. I do not know who made it; I do not know who owned it; I do not know who had charge of it.

X 8. Was there any buildings on block 3 at the time you saw this 1862 or '3 well?

A. Yes; there were some buildings on that block: O. M. Pond's house was on one corner of it; that little wooden-house just beyond the church, I think, was there or part of it.

X 9. Who lived in the little house beyond the church at that time?

A. I think it was a man by the name of Hill.

X 10. Did you, at the time you saw the well, or about the time you saw this well, hear who made it?

A. I don't recollect; I suppose I heard the name, but I don't remember the name.

5118 X 11. Was there a blacksmith shop nearly opposite, across Main street, at that time, on block 22?

A. Yes, sir; there was a blacksmith shop there on the block about at that time.

X 12. State now where the well was located that you say was put down on that block in 1866.

A. It was located there on the disputed ground within a small radius of where the other two was.

X 13. Which side of the little house was it?

A. It was north of west from the little house.

X 14. How near to the northwest corner was it?

A. It may have been 15 or 20 feet from the northwest corner.

X 15. Who made this well, how was it made, who owned it or had charge of it?

A. I do not know who put it down; it was made by driving a tube in the ground and putting a pump on it; I do not know who owned it; I don't know who had charge of it.

X 16. Do you know of your own knowledge that J. B. Turner was not in Independence in 1861?

A. I don't think he was, for I never learnt to know him till after 1866.

X 17. Did you see either the '62 or '3 or the '66 well made?

A. No; I did not.

X 18. Then all you know about the construction of these wells is what you heard.

A. All I know is what I "see."

X 19. Who occupies the blacksmith shop on block 22 that you have referred to?

A. Kays is the man to the best of my recollection that occupied it along about that time.

Cross rests.

5119 Redirect:

R. D. 1. Are you certain that it was after you came back from Marshalltown in, 1863, that you saw this second well?

A. I can't answer that I am certain, but it was to the best of my recollection.

2. Are you certain that Kays was in the blacksmith — at the time that you saw this second well?

A. I said that he worked there on or about that time, but I don't remember that he worked there at that particular time.

Redirect rests.

Recross:

R. C. 1. What is your best recollection as to Kays occupying the blacksmith shop at the time you say you saw the second well?

A. The best of my recollection is that he occupied it about that time; I don't remember that he occupied it at that particular time.

(Signed) S. P. McEWEN.

Subscribed and sworn to before me by Samuel P. McEwen this 29th day of September, 1880.

[SEAL.] (Signed) JOHN J. NEY,
Notary Public.

Adjourned to 8½ a. m., September 30th, 1880.

5120 JOSIAH BRACE *being* called on the part of the defendant.

JOSIAH BRACE, being duly sworn on oath, testifies as follows:

1. What is your name, age, place of residence, and occupation?

A. Josiah Brace; age, 64 years; residence, in Independence, Iowa; occupation, shoemaker.

2. Did you reside in Independence, Iowa, in 1861? If so, in what part of the town did you reside?

A. I resided in a little brick house on the west side of the river; the house belonges to Mr. Donnan; it was on block 22.

5121 3. Who lived in the house adjoining you on the west at that time?

A. Mr. Trexler.

4. When did you move into this little brick house, and how long did you reside there?

A. I moved in in the spring of '61; I leased the place for one year; I resided there the year.

5. Did you know W. H. Joslin in 1861?

A. Yes; I did.

6. Did Joslin ever live in this brick house that you speak of; and, if so, when?

A. Yes, he did; he lived in it before I rented it; he went in just after he was married; I said perhaps the word rented ought to be changed to leased; I stated, because I had lived in the house previously under another party without a lease, the other party was D. F. Gifford.

7. When was it that Mr. Joslin moved into this house?

A. I can give no day, but it was in the winter some time of '59.

8. How long did Mr. Joslin live in the house at that time?

9. *How long did Mr. Joslin live in the house at that time?*

A. I can't tell.

No. 9. Missed numbering.

5122 10. Was he living there when you moved in in the spring of 1861?

A. No, sir.

11. While you was living there in 1861 were there any companies raised in this town for the war of the late rebellion?

A. There was.

12. How many companies were raised here, and who were the captains of them?

A. Three; Lee; next was Hord; I never knew his initials; I am not so certain of the other captain; I think it was Miller.

13. While Lee or Hord's company was here did you see or know of a well on the block south of this house where you lived?

A. Yes; I did.

14. How was that well made?

A. It was an iron pipe driven in the ground, and an iron pump put on top of it.

15. Did you get water at this well or see others get it?

A. I did.

16. For what purpose did you get water there?

5123 A. To use in the family.

17. For what purpose did you see others get water there?

A. I see men go there and get water to drink.

18. State whether or not you saw any of the men belonging to these military companies get water there.

A. Yes; I did.

19. To which of the companies you have named did they belong?

A. I could not tell.

20. Do you remember of the fact of Captain Lee's company leaving Independence; if so, about when did they leave?

A. About the middle of July, 1861.

21. Do you know of the fact of Captain Hord's company leaving Independence; if so, about when did they leave?

A. About the last of August, 1861.

22. State whether or not this well remained there after Hord's company left.

A. It was there after they were gone, but I don't know how long.

23. What was W. H. Joslin employed at in 1861?

A. I don't know.

24. Where did he live while you lived in the brick house in 1861?

5124 A. I don't know what house he lived in.

25. Did W. H. Joslin live on the west side of the river in 1861?

A. I don't know.

Adjourned to 1½ o'clock p. m.

Met pursuant to adjournment.
Parties present as before.

Examination of J. BRACE resumed:

26. Is there now any prominent building on the block on which this well which you saw in 1861 was situated; if so, what is the building?

A. Yes; there is a building on the block; the Presbyterian church is on the block.

Direct rests.

Cross-examination:

X 1. When was your attention first called to the well you say you saw in 1861 since that time?

A. I don't know as anything called my attention to it at any time; it has been a present thing with me from the novelty of it; when I first saw it my attention was first attracted to it.

5125 X 2. Have you talked with anybody within the last four years on this well subject, or about Joslin's residing in Independence? If you have had, state with whom and the conversation as near as you can, and make your statements so that the notary may be able to take down all that you say.

A. Yes, I have, in common conversation with friends and neighbors; I had no conversation on the subject of Joslin's residing in Independence; I can designate no particular parties; I had no specially interested conversation—that is, with parties interested.

X 3. Do you now or have you at any time owned a well substantially similar in construction to the one you say you saw in 1861?

A. I do not own one, and have never owned one.

X 4. Describe particularly the location of the well you say you saw in 1861.

A. The northwest corner of the block, opposite, on the south, to the house I lived in.

X 5. Is that the same block on which the Presbyterian church now stands—that is, where the well stood?

A. Yes, sir.

X 6. How far was it from the north and west lines of the block to the tube of the well?

A. I do not know; I never measured the distance.

X 7. State as near as you can.

5126 A. It might have been one rod; it might have been two, for all I know.

X 8. Might it have (been) 20 rods each way, for all you know?

A. No, sir.

X 9. State, as near as you can, how far it was from each line. Give your best recollection.

A. It was on the north end of the northwest corner lot within the stakes; the lot nor block was not enclosed.

X 10. What was the size of the northwest corner lot referred to?

A. Four by eight rods.

X 11. Did you live in the little brick house on block 22 at the time the well that you say you saw was made?

A. I lived there in '61, and I saw the well in '61.

X 12. Did you see the well made, or any part of it?

A. No, sir.

X 13. Who made it?

A. I don't know.

X 14. Who owned it?

A. I don't know that.

X 15. Who owned the lot upon which it stood?

A. I don't know who the lot belonged to.

X 16. Who had charge or control of the well?

A. There was no one appeared to.

X 17. How long did it remain there?

A. I couldn't tell that definite; it was there a number of weeks.

X 18. For what purpose was it put down, judging from what you saw and heard?

5127 A. To introduce it to the public.

X 19. Did you see the parties who constructed this well or owned it, or did you hear their names?

A. If I did I don't remember them now.

X 20. When was the well made?

A. I guess I have answered that question already. I tell you I didn't see it put down. I couldn't tell you when it was put down.

X 21. What month, in the year 1861, did you move in the little brick house?

A. Somewhere near the first of May or latter days of April.

X 22. Was the well there when you moved in the little brick house?

A. I don't know.

X 23. How long was it after you moved in before you saw this well? State as near as you can.

A. It might have been three or four weeks.

X 24. Was there any platform under the pump?

A. I think not.

X 25. Was there any spout or trough to it either for carrying the water away or for watering the stock?

A. I saw nothing but the pump.

X 26. What kind of a pump was used with this well?

A. An iron pump with a pitcher spout.

X 27. What name was given to this well—that is to say, what kind or what was it called?

A. I don't remember about the name.

5128 X 28. Was either of the streets or roads by this well worked during the year you saw it—that is to say, was the sides dug or ploughed up and thrown to the centre, or the road repaired in any manner?

A. I don't know as I can recollect what work was done on the streets. The streets lie just where they do to-day.

X 29. When was the first important public building erected on the west side of the river, after you moved over there, in 1861?

A. There was none erected while I remained in this town; in '65 I moved out of the town and was gone 5 years, and then I moved back again.

X 30. Where did you reside when you moved back again, in 1870?

A. I resided on the other side of the river one year; the west side.

X 31. State where, on the west side, you resided.

A. I resided in a house east of Ephriam Leech; it stands there now, on lot 9, block 27, Stoughton & McClure's 2nd addition to Independence, Iowa.

X 32. When you moved away from Independence, in 1865, where did you go to?

A. Freemont township, Buchanan county, Iowa.

X 33. What business were you engaged in during those years?

A. I went farming.

X 34. Were you in Independence frequently during those years, from 1865 to 1870?

5129 A. Yes; I was in not very often; I only came in when necessity compelled me to.

X 35. What year did you move to Independence first?

A. My first arrival was January 4th, 1856.

X 36. Where did you reside first after moving to Independence?

A. I remained with relatives for some time before I went to housekeeping; I lived on the east side of the river.

X 37. How long did you remain with your relations before you went to housekeeping?

A. Until the next spring.

X 38. Where did you live when you first went to housekeeping?

A. In a house, now gone, that stood this side of Empire House; it was on lot 7, bl'k 23, S. & M.'s, 2nd add'n.

X 39. Did you move into that house in the spring or summer of 1857?

A. No, sir; the spring of '56.

X 40. How long did you reside there?

A. Until December of the same year.

X 41. Where did you then move to?

A. I moved to the house east of Ephrain Leaches, on lot 9, bl'k 27.

X 42. How long did you live there?

A. I was there nearly two years.

X 43. Where did you next move to?

A. To a house on Main street, on block 22.

X 44. How long did you live in that house on block 22?

A. I don't recollect; I wasn't there but a short time.

X 45. Was that the brick house that you referred to in your direct examination; if not, what house was it?

A. It was a wood house, moved away after I moved out.

5130 X 46. On what lot and part of a lot did it stand on?

A. It was east of the white building that is now east of the little brick.

X 47. Who owned it at — time you lived in it?

A. I think that it was Cornelius Hedges; whether he owned it or had the renting of it, he was the one I paid the rent to.

X 48. State, as near as you can, the year and the month in the year that you occupied that house.

A. It was in the fall; I can't state the year without referring to records that are not with me.

X 49. What year was it and what time in the year that you moved out of the house on block 27?

A. It was in the fall; I can't give the year any better than I could in the other question; I don't see any necessity in repeating questions.

X 50. Where did you move to when you moved out of the house on block 22 that you say was moved away?

A. I rented the basement of the brick house of Daniel Gifford and moved into it.

X 51. On what lot and part of a lot did this building stand?

A. It is on the west half of lot 7, block 22.

X 52. Is the house now standing where it did at that time?

A. Yes, sir.

X 53. When did you move into that house, and how long did you remain in it at that time?

A. I moved into the basement some time in the fall and remained there until the spring; I don't recollect what year.

5131 X 54. What is your best recollection as to the year?

A. I think somewheres, to my best recollection, about '59.

X 55. Then your best recollection would be that you moved into that house in the fall of '59 and moved out in the spring of 1860. Is that correct?

A. I can't tell decidedly; it is my best recollection.

X 56. Where did you move to in the spring of 1860, or when you moved out of the basement?

A. I moved to a house on River street, on the west side of the river.

X 57. How long did you remain in that house?

A. I can't tell; I spent just that year in two houses on River street.

X 58. When you removed from River street where did you then move to?

A. I then rented the brick house of Mr. Donnan—W. G. Donnan.

X 59. Is that the same house that you rented the basement from D. F. Gifford?

A. Yes, sir.

X 60. And how long did you remain there?

A. I was there one year.

X 61. And where did you move to from the brick on block 22, and how long did you remain where you moved to at that time?

A. I moved to lot 1, block 11, River street, on the west side of the river; I was there somewhere near two years.

X 62. Where did you remove to from there, and how long did you remain where you moved to from that place?

5132 A. To what was called Wilcoxe's block, on the east side of the river, and remained there during the winter.

X 63. Where did you move to from there, and how long did you remain where you then moved to?

A. I moved to the west side of the river and rented a house of George Bouck, in the rear of Asa Clark's store, on block 1.

X 64. How long did you remain there?

A. I was there about a year—I think a little over—to the best of my recollection. I went from there to Freemont township.

X 65. What year was it that you lived in the Wilcox block, on the east side of the river?

A. '63 (corrected).

X 66. What year was it that you lived in the house on River street, the first time you moved there?

A. I don't remember, I told you.

X 67. Was the first season that you moved into your farm in Freemont township a wet or dry season?

A. May and the first half of June was dry; from the latter part of June to the 4th of July was wet; August was dry & September wet.

X 68. Was the spring and summer of 1861 wet or dry?

A. I couldn't tell.

X 69. When did you first become acquainted with Mr. W. H. Joslin?

5133 A. I couldn't give any date to it. The first I ever saw of him was as a clerk in a store here. I never had any intimate acquaintance with Mr. Joslin, only as we would know one another passing — the street.

X 70. Whose store was he clerking in?

A. P. C. Wilcox's.

X 71. Was he married at the time you first knew him?

A. No, sir; he wasn't married when I first knew him.

X 72. What year was it he got married?

A. I don't know.

X 73. How long was it after you moved here he got married?

A. I was here three years or a little less; such things don't interest me & I don't keep a record.

X 74. Where did he live when he went to housekeeping the first time after getting married?

A. To the best of my knowledge he lived in that little brick on block 22—in the upper part of it.

X 75. How long did he live there?

A. I don't know.

X 76. Where did he move to?

A. I don't know that.

X 77. Did he live in the little house on block 22 up to the time that you moved there and occupied the whole of it?

A. I found the house vacant and went to Mr. Dorman and leased it; I don't know who lived there last before I moved in; I don't know how long the house was vacant.

5134 X 78. In answer to direct interrogatory number 10 you say Joslin was not living there when you moved in, in the spring of 1861; did you mean that he was not living in the little brick house or that he was not living on the block?

A. I me-nt the little brick house.

X 79. While living in this little brick house, in 1861, where did you obtain your regular supply of water for family use?

A. I got it in different places.

X 80. Was there any well on block 22 at that time? If so, state how many and where they were located.

A. There was one on the lot where the brick house was; it wasn't good for family use; I can't remember any other—not now.

X 81. On what part of the lot on which the little brick house stood, on block 22, was this well, and what kind of a well was it?

A. It was on the east side of the lot near the line fence and about opposite the door that entered the basement; the lot was eight rods deep; I should think it was about the centre of the lot; it was a stoned-up well; the time I was there we drew it up with a hook.

X 82. Did you obtain water from any other place during that time?

A. I sometimes came to a well on the block east of that and on the north side of Main St.

5135 X 83. Where was this well located on the block last named; what kind of a well was it, and how did they obtain water from that well?

A. The well stood behind the house, close to the house; I should think it was near the east line of the southwest corner lot and, perhaps, say, 40 feet from Main street. It was a stoned-up well; they drew the water from it with a windlass and chain and rope and bucket.

X 84. When did you next see a well of that kind on the block in which the Presbyterian church now stands?

A. What kind of a well do you mean?

X 85. A well similar to the first one you saw on that block.

A. I don't know as I have seen any.

X 86. Was the lot on which the little brick house was situated fenced in at the time you lived on it, in 1861?

A. Yes, sir.

X 87. Was the lot on which the well was located on the block east fenced in at that time?

A. Yes, sir.

X 88. Who lived nearest to you on the east in the summer of 1861?

A. I think it was Mr. P. Tabor, druggist down here.

X 89. What kind of a house was it—wood or brick?

A. Wood.

5136 X 90. Who lived next east to him during the same time on the same block, if anybody, and was the house brick or wood?

A. A widow woman by the name of Munroe; the house was wood.

X 91. Who lived next to you on the west during the spring and summer of 1861, and what kind of a house was that?

A. I think there was two families; one moved out and another moved in; to the best of my recollections, Mr. Trexler lived there when I first moved in; Mr. Whitmarsh moved in afterwards.

X 92. State, if you please, how many buildings there were between that and the west line of the block; give the kind of building- and who occupied them during the spring and summer of 1861.

A. There was one west of the house in which Trexler and Whitmarsh lived; a wooden building. I couldn't tell who occupied —; there were strangers moving in and out, and a part of the time it stood empty.

X 93. Do you know the defendant in this action, George Hovey?

A. Yes, sir.

X 96. Have you had any conversation with him or he with you on any of the subjects about which you have testified to-day?

A. Yes; we have had some conversation.

5137 X 97. State when and where, and give the conversation as near as you can.

A. I can't give any particulars. It occurred here on the street in Independence, and the subject has been what his prospects were in this case in which testimony is being given.

X 98. State, as nearly as you can, the conversations that you have had with him.

A. I cannot give you the words that have been used.

X 99. Do you refuse to give any other answer to the question?

A. I would give you the words if it were possible. If I had them at my command—had the memory of them—you should have them.

X 100. The examiner is requested to repeat interrogatory "98." (Question repeated.)

A. I stated I could not give the words. The subject was about his prospects in the (case) in which evidence is now being taken.

X 101. I now inform you that you are not asked or expected to give the exact language used in the conversations, but that you will be required to answer the question number "98," the substance of which is to state, as nearly as you can, the conversation had.

5138 A. Well, I can't state anything more than to say I met Mr. Hovey on the street, and I have asked him what his prospects were, and he has told me about the case as far as it had gone.

That is the sum and substance of our conversations in regard to this case now pending.

X 102. What did Mr. Hovey tell you about the case, so far as it had gone?

A. I understood him to say that the decision was in his favor, I think, by Judge Love, presiding.

X 103. Is that all the conversation that passed between you? If not, state further & fully as you can.

A. I don't recollect of anything further. We had very little conversation together—Mr. Hovey and I—on this the subject of this particular case.

X 104. Have you not understood, from what you have seen and heard, that if it could be established that a well of the kind you have referred to was driven on that block that it would aid in defeating the claim of the owners of the drive-well patent?

A. I think I have — such remarks in public among men.

X 105. Do you not understand, from what you have seen and heard, that that is the general understanding in this community?

5139 A. I understand men's opinions by their words. I can only call to mind five men besides Mr. Hovey with whom I have held conversations; therefore I do not know the general opinion of this community.

X 106. Do you not know, or have you not understood from what
you have seen & heard, that there is an organized opposition
5140 to the collection of royalties under what is called Green's
patent, and has there not been considerable excitement and
discussion in the community within the past two or three years on
that subject?

A. I know nothing of any such organization; I have heard that there was such excitement, but I have heard very little discussion.

X 107. Do you not sympathize with this opposition referred to?

A. I can't say that I am particularly in sympathy, because I don't know the facts on the other side.

Cross-examination rests.

Redirect examination:

R. D. 1. Has this excitement or discussion changed your recollection of the facts about which you have been asked to-day?

A. No, sir.

(Signed) JOSIAH BRACE.

Subscribed and sworn to before me by Josiah Brace this 30th day of September, 1880.

[SEAL.] (Signed) JOHN J. NEY,
Notary Public.

Adjourned to 8½ o'clock a. m., Sept. 30, 1880.

Oct. 4, 1880.

5141 Parties met pursuant to adjournment.
Parties present as before.

D. S. Deering *being* called on the part of the def'ts. D. S. Deering testifies as follows, to wit:

1. What is your name, age, place of residence, and occupation?

A. D. S. Deering; age, 64 years; reside in Independence, Iowa, and occupation, deputy clerk of the courts of Buchanan county.

2. How long have you resided in Independence, Iowa.

5142 A. I came here in the spring of 1860, I think; I have resided here ever since.

3. On what lot and block do you now reside and how long have you resided there?

A. I reside on lot 1, in block 7, Stoughton & McClure's 2nd addition to Independence, Iowa; I have resided there since the 1st of April, 1862.

4. How far from your residence and in what direction is block four, in Stoughton and McClure's 2nd addition to Independence?

A. It's the next block north; it is distant four rods.

5. What improvements, if any, were on that block in April, 1862?

A. There were none.

6. In passing from your residence to the street could you see over the whole of the block?

A. Yes.

7. Was that block ever used as a cricket ground, to your knowledge; if so, when?

A. It was; it was previous to my living over there; I don't think it was ever used as a cricket ground after my moving there; I am satisfied it never was.

8. State, if you know, the names of the persons who used to play cricket there.

A. Oh, I can't tell; there was Charles L. White, C. F.
5143 Herick, I think C. F. Putnam, and I think R. D. Reed and
Richard Thornton, W. S. Marshall, and probably a dozen
in all.

9. What became of C. L. White & W. S. Marshall?

A. I think they both went into the army; I think White went into Lee's company; I know White did and I think Marshall did.

10. When did Lee's company leave Independence?

A. Well, I can't tell you the month; it was in '61.

11. Was any cricket played on that ground after Captain Lee's company left Independence?

A. I don't think there was.

12. Did you know J. R. Kays when he lived in Independence?

A. Knew Kays, a blacksmith over there; I don't know what his name was.

13. When did he come to Independence?

A. I can't tell you.

14. Was it before or after Captain Lee's company left Independence?

A. I couldn't say certain; my impression is it was after; I couldn't say; I don't know when he did come.

15. On what lot and block did Kays have his blacksmith shop when he did come?

A. It was on lot 5, block 22, Stoughton and McClure's 2nd add'n.

16. Who first improved block four, Stoughton and McClure's 2nd add'n?

5144 A. J. S. Woodward.

17. Who now lives on said block?

A. Z. Stout.

18. Do you remember the building of the Presbyterian church, on block three, Stoughton & McClure's 2nd add'n to Independence?

A. Yes.

19. When was that church built?

A. I think in 1868.

20. At the time they built that church did you see a well there of any kind; if so, what kind?

A. There was a pump, an iron tube driven into the ground, a few rods from the church, from which they got the water to make the mortar for the church. I don't know whether it was driven or how it was put down. It was, perhaps, three or four rods from the building. I know that it wasn't dug.

21. Prior to the building of that church had you seen a well of similar construction on the same block; if so, when did you see it?

A. There was one driven down on the same block in the summer of 1862.

22. On what part of the block was that well driven?

A. It was near the west side of the block. To the best of my recollection, it was a little north of the centre of the block. It might have been a rod away from the west line; maybe two.

5145 23. Did you see the parties while they were making this well; if so, what did you see them do?

A. Yes; I saw them when they were putting down the pump. I wasn't there all the time, but as I went back and forth I saw them driving the iron tube into the ground. They put a pump on top of it.

24. What time in the year was it that they made this well? Give the month, as nearly as you can.

A. I couldn't say certain; I think in July or August.

25. Did you use this well or see others use it to get water?

A. I did use it and saw others use it. We brought water from there for household purposes. Our well was dry.

26. How far was this well from your house?

A. Well, it was probably from ten to twelve rods.

27. While this well was there did Carl White, Charley Herrick, or Charley Puteney play cricket *or* block four, where Z. Stout now lives?

A. I am satisfied they did not. Carl White was in the army. I am satisfied there was no cricket played after I moved over there—played on that block.

28. After you saw this well in 1862 and before you saw the well at the church in 1868 did you see any other well of like construction on that block then; if so, when was it?

5146 A. I have no recollection of any.

29. Was you at and about your home during the months of May, June, & July, 1866?

A. I was.

30. State whether or not during either of those months you saw or heard of a well being put down near the northwest corner of this block, there in Stoughton & McClure's 2nd add'n to Independence, by driving an iron tube in the ground and fixing a pump to the top of it.

A. I have no present recollection of any such thing, but I can't tell what I saw or heard at that time.

31. Was you acquainted with J. M. Chandler in 1866; if so, where did he reside?

A. Yes; I was acquainted with him; he resided in Independence; I think he resided on the west side of the river.

32. Did you hear of J. M. Chandler and J. B. Turner purchasing any drive-well territory in 1866?

A. I have no recollection at present of any such thing.

Direct rests.

5147 Cross-examination:

X 1. How frequently did you go over on the west side of the river and around block- three and four during the year 1861?

A. I couldn't say; I might have been over there five or six times in 1861; I bought that property; I bargained for it in the fall of 1861, and the deed was made in the spring of 1862; it was made in February.

X 2. During the times that you were across the river on the west side in 1861 did you pass near this northwest corner of block three in your going and coming?

A. I did.

X 3. How frequently did you see the game of cricket ball played on block four during 1861?

A. I couldn't say whether it was 1860 or 1861 they played cricket; I have no distinct recollection of seeing them play cricket but once.

X 4. Were you acquainted with Mr. Herrick, Carl White, Richard Thornton, and the others you mentioned in your direct examination in the spring and summer of 1860?

A. I was.

X 5. Were you famil-ar with the game of cricket in 1860 and 1861?

A. No, sir; never saw it played before.

X 6. Was there other kinds of ball playing, base ball and the like, during the years 1860–'61 and thereafter, on block four?

5148 A. There might have been, but I have no recollection of them.

X 7. What year was block 4 fenced?

A. I can't tell you.

X 8. Was there any improvements on block three at the time you saw this drive well—I mean the first one?

A. I think the southeast corner of the block was improved.

X 9. What was on the southeast corner, how was it occupied, and and was that all the improvements you remember being on the block at that time?

A. I am not positive, but that is my impression; if it was it was the only improvement on the block at that time; it is my impression there was a building of some kind on that corner.

X 10. Was there a blacksmith shop nearly opposite and across Main street, nearly north from where the well was located, in 1862?

A. I think there was a building on the corner; whether it was occupied as a blacksmith shop or not I couldn't say.

X 11. Did the first well that you saw on block three attract the attention of the citizens to any extent, or was it regarded as a curiosity or novelty at that time, judging from what you saw and heard?

5149 A. Well, I should say that the well attracted a good deal of attention, because I saw a good many people there around it trying it.

X 12. Had you at that time seen or heard of a similar well having been put down near the same place prior to that time?

A. I think not; my present recollection is that I did not, for I considered it something entirely new and valuable, if practicable.

X 13. Is your impression and recollection sufficiently distinct to enable you to state positively that you saw this well after you had moved on lot 1, block 7?

A. Yes, sir; I knew it was after I moved there; I can't be mistaken about it.

X 14. Now, are you as positive that it was in the year 1862 that you saw this well, or is it not possible that it was at a later date than 1862?

A. Well, sir, I have no doubt on the subject at all that it was in 1862.

X 15. What business were you engaged in in the year 1866?

A. I was in the drug business; I was in the same business in 1861.

X 16. On which side of the river were you engaged in business in those years?

A. On the east side.

X 17. State how many members of your family were living with you on lot 1, block 7, in 1861 and 1866.

5150 A. In '61 there was all my children that were living; there were six; I couldn't say in '66; we lost two girls; all were living with me that were alive.

Cross-examination rests.

Redirect:

R. D. 1. Was you on the west side of the river very frequently in 1861?

A. I think not.

(Signed) D. S. DEERING.

Subscribed and sworn to before me this 30th day of September, 1880.

[SEAL.] (Signed) JOHN J. NEY,
Notary Public.

8151 Parties met pursuant to adjournment.
Parties present as before.

LEITNER T. STROMAN *being* called as a witness on the part of the def'ts. LEITNER T. STROMAN, being duly sworn, on oath deposed as follows, to wit:

1. What is your name, age, place of residence, and occupation?

A. L. T. Stroman; reside in Independence; age, 66 years; occupation, tailor.

2. What year did you come to Independence to live?

A. In 1858.

3. State whether or not you have lived here in Independence ever since that time.

A. Sept. 15th I came to this town, and have lived here ever since.

4. Did you know Baxter Adams in his lifetime?

A. I did.

5. Do you know of his holding any official position; if so, what position was it?

A. He was road-master. I know of his being road-master.

5152 6. What year was he elected road-master first?

A. In 1860.

7. State whether or not you worked for him while he was holding that office.

A. I did, off and on, at different times.

8. While you was at work for him, did you see a well on the west side of the river that was peculiar in its construction?

A. I did.

9. Describe the well as to its appearance.

A. It was a small-sized well or pump, not very high up, set on a plank floor about three feet by four, with a trough under it, where we used to pump water in to water horses.

10. What was there down below the pump to draw water through?

A. A metal tube.

11. How was that metal tube put into the ground?

A. I didn't see it put in—of course I can't say how it was put down.

12. Did you hear anything said at the time you saw the well as to how the pump was put down? If so, state what was said on that subject.

A. I never had any conversation about it. They told me it was a well without any digging.

13. Did this well remain where you first saw it all the while it was there?

5153 A. It did not.

14. When it was moved, which way and how far did they move it?

A. It was moved about a rod east and south.

15. After it was moved did you see the tube that went into the ground or any portion of it?

A. What — said to be in the ground. I could see a portion of what was said to be in the ground.

16. How much of this tube could you see?

A. A short piece of it; two or three feet long; I didn't measure it. I don't know the exact length.

17. State whether this part that you saw stuck up above the ground or not.

A. It was not. It was in the blacksmith shop I saw it. I saw it there after it was cut off.

18. Now, Mr. Stroman, the question I asked you was, could you see any part of this tube that was put into the ground? What I meant was whether the tube that you say was in the ground—whether any part of it stuck up above the ground so that you could see it.

A. No.

19. Then you did not see any part of the tube that was in the ground, as they said?

A. It was all covered up with the exception of the pump.

Direct rests.

5154 Cross-examination:

X 1. Where did you first reside when you moved to Independence, Iowa?

A. I lived on the east side of the river, on the north side of Main street, in the property owned by Mrs. Hayward (or Hageman), now owned by Mass. I lived there six months.

X 2. Where did you next reside? How long did you live there? Where did you move to after that?

A. I moved in a house north about two squares—a house owned by Mr. Ephriam Leach, on the east side of the river. I lived there six months. Then I moved in the Brewer block, and I stayed there about six months. I lived there a year instead of six months. Then I moved from there down into a house owned by Capt. Lee—a stone house. I lived there four years, I guess. This was on the east side of the river.

X 3. What year did you move from Capt. Lee's house and where did you move to?

A. I don't know the exact year. By looking over some memorandas that I have I could tell. I moved in Robinson's house on this street back again.

X 4. In what house did you live in 1866 and what were you doing that year?

A. I lived in a house that I built; southeast portion of the town, in block 11, Scarcliff's addition to Independence, Iowa.

X 5. Who did you buy the ground of on which you built?

A. Scarcliff, Thomas Scarcliff. I was laboring out at anything I could get to do. I was not working at my trade.

5155 X 6. Where is Baxter Adams now?

A. He is dead.

X 7. When did he die?

A. He is dead now three or four years.

X 8. Who was working on the road with you at the time you saw this well?

A. Well, there was a good many, but they were changed often. There was Billy Adams, — was ploughing and scraping, and there was Wattles—I don't know his first name—he held the scraper, and Mr. Flannery and myself to clean up after the scraper. Wattles' first name was Charles.

X 9. Where is Billy Adams now or any of those you have named?

A. Wattles is away up here on the North railroad; I don't know just where he is located. Billy Adams is out west of town somewhere, I don't know where, and Flannery died a short time ago.

X 10. At the time you first saw the well referred to were there many people around it?

A. No, sir; there was none; none but ourselves.

X 11. Did you see this well every day for a length of time?

A. Yes; probably for about a month; three weeks or a month.

X 12. What month in the year was it?

A. It was the latter part of May or first of June.

X 13. Was there anything particularly going on on either of the blocks adjoining where you were at work during the time you worked there?

5156 A. No, sir; there was nothing.

X 14. How long after you first saw the well was it before it was moved off the block? And state what block it was moved on.

A. About 6 or 10 days. I don't know the number of the block.

X 15. When was it you saw this tubing—was it before or after it was moved on the block?

A. It was after it was moved on.

X 16. Was the block on which the well was moved the same block on which the Presbyterian church now stands?

A. It was on the same square; I suppose it was the same block.

X 17. Where was this blacksmith shop situated at which you saw the tube?

A. North of the corner—northeast corner of the block—north of that; directly north from the corner where this well was.

X 18. I understand you to state that the well, after it was moved, was on the northwest corner of the block on which the Presbyterian church now stands, and that the blacksmith shop at which you saw the tube was directly opposite, on the north side of Main street; is that correct?

The question is withdrawn.

X 19. State now whether or not the well, after it was moved, stood on the northwest corner of the block on which the Presbyterian church now stands.

5157 A. Yes, sir.

X 20. State now if you mean to be understood that the blacksmith shop at which you saw this tube was opposite to where the well stood, on the north side of Main street?

A. Yes.

X 21. What did you go to the blacksmith shop for at the time you saw this tube you refer to?

A. For a crowbar to move a stone. I asked what that was and he said it was a piece of the tube of a drive well, and that's the first I knew of a drive well.

X 22. Whose blacksmith shop was this at which you saw the tube at that time?

A. Mr. Kays'; don't know what his first name is.

X 23. After this well was moved on the block on which the Presbyterian church now stands did it have the same appearance as to the platform and trough that it did before it was moved?

A. It did.

X 24. You say you were at work laboring at whatever you could get to do in 1866. Do you remember of any particular place you worked during that year? If so, state.

A. A great many places, but I can't remember them distinctly.

Cross-examination rests.

5158 Redirect:

R. D. 1. At the time you saw this well that you have described was Mr. Kays occupying the blacksmith shop you have spoken of?

A. He was.

2. How long had he been occupying that shop as a blacksmith shop at the time you saw this well?

A. I don't know how long.

3. State about how long, as near as you can?

A. Four weeks, anyhow, and that's all I know about it.

[SEAL.] (Signed) L. S. STROMAN.

Subscribed and sworn to before me this 1st day of October, 1880, by L. S. Stroman.

(Signed) JOHN J. NEY,
Notary Public.

5159 STEPHEN M. MARQUETTE *being* called on the part of the def'ts. STEPHEN M. MARQUETTE, being duly sworn, deposes as follows:

1. Are you the same S. M. Marquette that was examined on the direct — in this case?

A. Yes, sir.

2. At that time you testified to seeing a well on the northwest corner of block three, in Stoughton & McClure's 2nd add'n to Independence, Iowa, in 1860 or 1861. Now, state whether at the time you saw this first well you was acquainted with J. R. Kays.

5160 A. Well, I don't remember whether I was acquainted with him or not at that time, but I think I was; I think he was working in a blacksmith shop on Walnut street in 1861.

3. Did he at that time have a blacksmith shop on the southwest corner of block 22, Stoughton & McClure's 2nd add'n to Independence, Iowa?

A. Well, sir, I don't remember whether he did or not in 1860 or 1861; there was an old house stood there and was torn down before the shop was put up, and I don't remember whether it was in 1860 or 1861.

4. Was you acquainted with J. M. Chandler at the time you saw this first well that you testified about when you was examined before?

A. I was.

5. On which side of the river did he live at that time?

A. Well, sir, that I don't know; I got acquainted with him in 1856 and he went away between that time and 1864.

6. Do you know when he moved on the west side of the river to live? If so, state.

A. It was in 1863 or '4; it might have been 1865.

5161 & 5162 7. When he moved on the west side of the river, how far and in what direction did he live from where you lived at the time?

A. He lived on the southwest corner of Willow and Center street-, right across the street south of me; I lived on the southeast corner of block 27.

8. After Mr. Chandler moved into this house opposite of you did you hear of his buying the right to put in these drive wells in Minnesota?

A. I did.

9. About how long was that after you saw this first well on or near the northwest corner of block three?

A. Well, I should think it was in the neighborhood of five years; it was in the neighborhood of from four to six years.

Direct rests.

Adjourned to 1½ o'clock p. m. for dinner.

Parties met pursuant to adjournment.
Parties present as before.

The witness, STEPHEN M. MARQUETTE, asks to make a- explanation as follows, to wit:

5163 Witness says:

I think that it was in '63 or '64; I have stated before that it was '61 that he was here; I moved into a new shop below; was there two years; then bought a cabinet shop from a man by the name of Burpee; then was in there a year or two; one year anyway; then this Kays done a job on a buggy, setting a tire on a child's buggy; he was then in his new shop, and I think that will make it '63 or '64.

Direct examination resumed:

10. In your statement just made you did not give the name of the person that you stated that you had said was here in 1861, but now thought was not here until 1863 or 1864; now give the name of the (person) and the business he was engaged in.

5164–5166 A. His name was Kays; he was a blacksmith; I thought I gave his name when I first started.

Direct rests.

At the request of the attorney for the defendant the notary enters upon the record that the counsel for the complainants is present and neglects to cross-examine the witness.

(Signed) S. M. MARQUETTE.

Subscribed and sworn to before me by Stephen M. Marquette this October 1st, 1880.

[SEAL.] (Signed) JOHN J. NEY,
Notary Public.

5167 *Edward Brewer's Testimony.*

EDWARD BREWER, being produced on part of the defendant and being duly sworn, testifies as follows:

1. What is your name, age, residence, and occupation?

A. Edward Brewer is my name; age, 65; occupation, a physician; reside in Independence, Iowa.

2. How long have you resided in Independence, Iowa?

A. Thirty-three years.

3. During that time have you held any official position? If so, where, and for how long a time?

5168 A. From 1847 to 1868, clerk of the district court of Buchanan county, Iowa.

4. While you was clerk of the district did you have the approval of the bond- of road supervisor; if so, for how long a time?

A. I had the approval of them; I got authority from the board of supervisors to approve them after it was organized; before that the county commissioners gave me the same authority. I had the authority to approve them during the whole time I was in the office.

5. During the years 1860 to 1861 did you approve that kind of bonds?

A. I did.

6. Did you know Baxter Adams in 1860 and 1861?

A. I did.

7. Look at the bond here shown you, purporting to be the official bond of Baxter Adams, dated the 18th day of December, 1860, and state whether you as clerk approved that bond, and whether it was presented at the time it bears date.

5169 A. I couldn't answer from recollection, but I filled out that bond and administered the oath according to the certificate.

8. Look at the filing on the back of the bond and state whether you filled that out also.

A. I did.

9. Was the bond filled out and executed and the oath administered at the time it bears date on the face?

A. It must have been, for I never misdated.

10. Do you know Baxter Adams' handwriting?

A. I used to know it well, and I think I do now.

11. Is the signature to that bond, where the name Baxter Adams is written, his handwriting?

A. I am very sure it is.

12. You may now state what territory road district No. 1 included in 1860 and 1861.

A. I couldn't answer; I don't remember; the road districts were changed.

13. State whether or not that district included what is now the city of Independence.

5170 A. I could not tell without an examination of my records.

14. Do you know where Baxter Adams lived at that time? If so, state.

A. I do not remember, but think (if that's testimony) on the corner of Walnut and Mott streets, on the east side of the river.

15. Is that place in what is now the city of Independence?

A. It is.

16. Do you know where Mr. Adams did his work as road supervisor? If so, state.

A. I do not know; I do not remember.

17. Under the bond that has been shown you up to what time would he have held the office?

A. Road supervisors held their offices one year; I don't know when the term commences.

Direct rests.

Cross-examination waived.

[SEAL.] (Signed) EDWARD BREWER.

Subscribed and sworn to before me this 13th day of October, 1880.

JOHN J. NEY,
Notary Public.

5171 Defendant now offers in evidence the bond shown to the witness, Edward Brewer, purporting to be the official bond of Baxter Adams as road supervisor of district No. 1, Washington township, Buchanan county, Iowa, bearing date the 18th day of December, 1860, and states that he cannot get permission to have the original attached to the deposition, but asks the notary to examine the copy of said bond herewith presented and make it an exact copy, so far as the reading is concerned, of the original, and when so made to certify that fact, and attach it to the deposition of Edward Brewer, and return it with the same in this case.

5172 I have examined and compared the copy of the bond of Baxter Adams, referred to above, and endorsed the same, approving its correctness, and attach the same hereto, marked in the margin Edward Brewer's Evidence—Exhibit "A," J. J. N.

5173 Exhibit "A," J. J. N.—Edward Brewer's Evidence.

[SEAL.] STATE OF IOWA,
Buchanan County, } *ss:*

Know all men by these presents that I, Baxter Adams, as principal, and ——— ———, as security, of the county aforesaid, *am* held and firmly bound unto Washington township, in the county of Buchanan, State of Iowa, in the sum of two hundred dollars; to the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, and every one of them firmly by these presents.

Now, the condition of the above bond is such that if the said Baxter Adams shall, as road supervisor in district No. 1, in said township, county of Buchanan, State of Iowa, render a true account of his office and of his doings therein to the proper authority when required thereby or by law, and shall promptly pay over to the person or officers entitled thereto all moneys which may come into his hands by virtue of his office, and shall hereafter exercise all reasonable diligence and care in the preservation and lawful disposal of all money, books, papers, securities, or other property appertaining to his said office, and deliver them to his successor or to any
5174 other person authorized to receive the same, and shall faithfully and impartially, without fear, favor, fraud, or oppression, discharge all other duties now or hereafter required of his office by law, then the above bond to be void; otherwise to remain in full force.

Witness our hands this 18th day of December, 1860.

(Signed) BAXTER ADAMS.
A. J. BOWLEY.
M. GILLETT.
HENRY PARK.

STATE OF IOWA,
Buchanan County, } *ss:*

I do solemnly swear that I will support the Constitution of the United States and that of the State of Iowa, and that to the best of my knowledge and ability I will perform all the duties of the office of road supervisor, as provided by the conditions of my bond above written.

—— ——.

Subscribed and sworn to before me this 18th day of December, 1860.
(Signed) EDWARD BREWER,
County Clerk.

Endorsed: Official bond and oath of Baxter Adams as road supervisor. Filed and approved this 18th day of Dec., 1860. (Signed) E. Brewer, clerk.

I have compared and examined the foregoing copy of official bond of Baxter Adams with the original and find this to be a true copy of the original.
(Signed) JOHN J. NEY,
Notary Public.

5175 J. J. TRAVIS *being* produced on the part of the defendant.
J. J. TRAVIS, being duly sworn, on oath testifies as follows:

1. Are you the same J. J. Travis who testified on the direct in this case?

A. I am.

2. At the time you saw the well that you testified in regard to in your first examination whereabouts did you reside?

A. I resided on the Bright farm, about three miles from town, northwest.

3. At that time were you acquainted with Joseph M. Chandler?

A. I was.

4. State, if you know, where he resided at the time.

A. He resided on the north side of Rigand street and the west side of Conova street, in the northeast part of Independence proper, on the east side of the river. 5176

5. Do you know of said Chandler afterwards moving on the west side of the river, in Independence? If so, state when it was as nearly as you can.

A. To the best of my recollection, it was in 1863 or 1864.

6. After J. M. Chandler moved onto the west side of the river did you hear of his purchasing any drive-well territory of any one?

A. I can't say positively that I did. I'll state that I heard of his dealing or dickering in some kind of patent rights, but what it was I don't remember.

7. Are you now acquainted with Joseph B. Turner?

A. I am.

8. When did you first become acquainted with him?

A. I should say about from thirteen to fifteen years ago; I can't call anything to mind to fix the exact time, and don't remember exactly. If I had some of my old books here I could tell nearer than by remembering. I should say from 1865 to 1868, and it might have been before. 5177

9. At the time you saw this well that you testified to in your first examination was you acquainted with said J. B. Turner?

A. I can't say positive in relation to that question, but I had seen him here some time before I formed any particular acquaintance.

10. Where did you reside in the year 1866, and what was your business?

A. I resided on lot 1, block 2, Independence proper, on the east side of the river—same place I live now; farming in the summer months and dealing in wood in the winter months.

11. During that season, in the months of May, June, or July did you hear of a driven well being put down on the west side of the river at Independence, Iowa?

A. I think I did, but did not see it about that time.

12. State if you know who put down said well.

A. I don't remember that I do.

13. Did you see that well at all while it was there?

A. I don't remember that I did.

5178 14. How long after you saw the well that you testified to in your first examination was it before you heard of this well that you think you heard about in 1866?

A. I can't exactly remember; it was several years afterwards; somewhere from five to seven years.

Direct rests.

Cross-examination:

X 1. What is your best recollection as to whether you was acquainted with J. B. Turner at the time you say you saw the first well?

A. I haven't said I was acquainted with J. B. Turner at the time I saw the first well; I might have seen him, but I didn't say that I was acquainted with him.

X 2. What is your best recollection as to the date when you first saw J. B. Turner to recognize him?

A. I don't wish to place any date, as I can't tell exactly; I saw him here and there; he would be away and I had no chance to form any acquaintance with him until somewhere from 1865 to 1868.

5179 X 3. You say you think you heard of a driven well in 1866. How do you fix the date as to when you heard of that well?

A. I know it was several years after I saw the well I testified to and I know it was some time previous to 1870 by some of my own business transactions; that's as good dates as I can give—that is, from my memory.

X 4. Then you are not certain that you heard of a driven well in 1866, are you?

A. I place it somewhere about that time.

X 5. Is it not a fact that you place it somewhere about that time from the manner in which the question was put to you by the counsel for the defendant? If not, state why you name that particular year.

A. No, sir; I do not place it by the question asked, but I do remember hearing of a driven well about that time; I couldn't say positive it was in 1866, but it was somewhere about that time.

X 6. How did you hear of that well, who did you hear speaking of it, and where was it located?

A. The same as I hear anything else—with my ears; public talk by some one; I can't say who. At that time there was various patent rights dealt in here by different parties, and I heard that
spoke of among the rest; it was located on the west side of
5180 the river some place; I don't claim to have seen any well,
but to have heard it talked of.

X 7. Have you not heard of a well having been put down in 1866 within the last year or two?

A. I can't say that I have; I don't remember that I have.

X 8. Since the commencement of the action in which you say you testified before has not the subject of the driven well, and particularly those that have been put down in Independence or some of them, been talked about in your presence?

A. No, sir; it has not; that is something that don't concern me, and I have paid but very little attention to it.

X 9. Then you had heard no conversation on the subject since you last testified, have you?

A. Nothing more than what I have seen in the newspapers, and I understood there was still to be another examination of the witnesses.

X 10. What patent did you hear spoken of in connection with the well you heard was put down in 1866?

A. I don't know; I never heard of but two patents, Green's and Hovey's.

X 11. What business were you engaged in in the year 1866?

Withdrawn.

5181 X 12. Were you frequently on the west side of the river during the summer of 1866?

A. I don't remember that I was.

X 13. You say you were farming in the summer; in what direction and how far was your farming from Independence in 1866?

A. On the east of town from one to two miles.

X 14. About how much time did you spend in Independence during that time, or about how frequently were you in town?

A. I lived in town and worked daytime a-farming, and when that didn't employ all my time I worked a teaming, at whatever I could get to do; but sometimes I wouldn't be on the west side of the river for a month; in the fall of the year I went out harvesting; I presume I was at work for my father-in-law for a month during the harvest months.

X 15. Did this well that you think was put down in 1866 create any excitement by reason of any peculiarity connected with its construction?

A. I- didn't create any excitement with me, for I didn't care enough about it to go and look at it. I had heard about that time of Hovey's driving wells, but I never went to see them; I don't know if they put it down or who it was.

X 16. Did you assist any that year in working the streets or roads on the west side of the river?

5182 A. I don't think I did.

Cross-examination rests.

(Signed) J. J. TRAVIS.

Subscribed and sworn to before me this 13th day of October, 1880.

[SEAL.] (Signed) JOHN J. NEY,
Notary Public.

5183 Adjourned for dinner till 2 o'clock p. m.

Met pursuant to adjournment.
Parties present as before.

A. H. TRASK *being* produced as a witness on the part of the defendant. A. H. TRASK, being duly sworn, testifies as follows:

1. State your name, age, place of residence, and occupation.

A. My name is A. H. Trask; I reside in Independence, Iowa; my age is 53 years, and my occupation is a livery-stable keeper.

2. How long have you resided in Independence, Iowa?

5184 A. Since 1854.

3. Do you know Frank Trask, and is he any way related to you; if so, what relation?

A. Yes, sir; he is a nephew.

4. Do you know where he resided prior to 1861? If so, state.

A. In Jonesville, Rock county, Wis.

5. Do you know when he first came to Independence, Iowa? If so, state.

A. He came in the spring of 1861, and went back in the fall.

6. How was he employed during the time that he was in Independence, in 1861?

A. He worked for me in the livery business.

7. During the summer that Frank Trask worked for you in the livery business was you acquainted with J. M. Chandler?

A. I was.

8. State, if you know, on which side of the river at Independence, Iowa, J. M. Chandler lived at that time.

A. He lived on the east side in the spring.

9. Did you know J. B. Turner in 1861?

5185 A. I have no recollection of knowing him.

10. When do you remember of first becoming acquainted with J. B. Turner?

A. I can't tell how long it has been. I could not tell how many years it has been.

11. Was J. B. Turner living here in the year 1861?

A. I can't recollect what year he came here.

12. In 1866 was you acquainted with H. S. Cole?

A. I was.

13. Do you remember of his being around with some men who had a patent drive well that year? If so, give their names, as far as you can.

A. He was with a man by the name of Charley Brown. He drove or had wells drove here. There were three of them. The others I don't remember their names.

14. Do you remember of letting Cole and Brown have a team to go to Vinton, Benton county, Iowa, on their drive-well business, in 1861?

A. Yes, sir. Charley Brown hired the team. Cole went with him.

5186 15. State, if you can, what date it was that they started for Vinton.

A. It was in July, 1866; I can't remember the day without looking at my book.

16. After Brown and Cole went to Vinton did they have a drive well on the west side of the river, near the northwest corner of the block, where the Presbyterian church now stands?

A. I don't know that they had that well; there was a well put down there before, and I don't know that they had that well; the well that I saw them put down was in Fargo's woodshed; I went over and saw them drive it and make it; the building has been since owned by the Presbyterian minister, Philps.

17. During the season that Brown and Cole were operating with that well here did you see a well near the northwest corner of that block, where the Presbyterian church now stands?

A. There was a well there that season; I saw it there a great many times and drank out of it, but I don't know who put that down.

5187 18. After Brown and Cole had your team to start for Vinton, did you see the well there that season?

A. Yes, sir.

19. Will you now go and look at your book and give us the date that Brown and Cole got your team to go to Vinton?

A. They got my team and started July 1st and returned July, 5th of the month, 1866.

Cross-examination waived.

[SEAL.] (Signed) A. H. TRASK.

Subscribed and sworn to before me this 13th day of October, 1880.
(Signed) JOHN J. NEY,
Notary Public.

5188 SAMUEL NAYLOR, being sworn and examined, deposed as follows:

1. What is your name, age, residence, and occupation?

A. My name is Samuel Naylor; am 45 years of age; reside at Independence, Iowa; am a hotel keeper.

2. How long have you resided in Independence, Iowa, or in Buchanan county, Iowa?

A. 26 years in the county.

3. How much of that time have you resided in Independence?

A. 17 years.

4. Do you know the block of land on which the Presbyterian church now stands, on the west side of the river at Independence, Iowa; and, if so, how long have you known that block?

A. Yes, sir; I have known it for 26 years.

5189 5. At any time during that 26 years did you see a well on that block that attracted your attention by reason of the method of its construction?

A. I did.

6. On what part of the block was that well situated?

A. That I can't tell you.

7. Locate it as near as you can from your remembrance of where it was.

A. As near as I can tell now I think it was a little west of the church—where the church now stands.

8. Describe this well as it appeared to you at that time.

A. All the describing I can do it was pipe drove in the ground and a pump to it.

9. Did any part of the pipe stick up above the ground; if so, how much?

A. I can't tell how much; may be 4 or 5 inches, along there.

10. Did you pump water at this well or see others pump there?

A. I pumped water there. I could not say whether I saw others pump or not. I saw others there.

11. At the time you saw this well was there anything said as to how it was made? If so, state what was said about it.

A. Well, it was said it was a pipe drove into the ground.

12. From the appearance of the pipe and the earth around it how would you say it was put in the ground?

A. Well, by the appearance it looked to me as tho' it was drove down.

5190 13. When was it that you saw this well?

A. In 1861.

14. What time in 1861?

A. In May or June; I can't tell which month.

15. How do you fix the date of your seeing this well? State all the particulars that you now remember that enables you to fix this date.

A. The first I was in Colorado in 1860; I returned and worked on the elevator built by Sherwood the same winter of 1860 and 1861; I saw this well the same spring of 1861, in May or June; I should have stated I worked for Sherwood in Independence, Iowa.

16. What is Mr. Sherwood's first name, and for whom did he build this elevator, if you know?

A. Samuel Sherwood is his name. He built the elevator for Putnam; I don't know his first name.

17. Where was the elevator located and what has become of it, if you know?

A. It was located on the ground where now the Granger elevator stands, west of the depot on the Illinois Central railroad at Independence, Iowa; it was burned down.

18. State, if you know, who occupied it at the time it was burned.
A. J. F. Lyon, of Independence, Iowa.

Direct rests.

Cross-examination:

X 1. Where did you reside when you first came to Independence, Iowa? Give the location of the house in which you lived.

5191 A. I lived in the Montour House; it was then called the "Brazleton House."

X 2. Where was this house situated?

A. On the corner now called "Purdy's block."

X 3. On which side of the river was it and on what street?

A. East side of the river, on Main St.

X 4. What year was it?

A. In 1854 and '5.

X 5. Give your place of residence from the time you moved from that house until you left for Colorado, and state when you moved from the place first named.

A. It was the spring of 1856 I moved to Fairbank, Buchanan Co., Iowa; I lived there until 1865; in the meantime I went to Colorado.

X 6. When you left Fairbank where did you then move to and how long did you remain in that new location?

A. I moved to Independence, Iowa, in the year 1865, about March of that year; I correct myself by saying in 1865 or 1866. I moved on the premises I now occupy, on Chatham street, 2 blocks south of the Illinois Central depot; I have lived there since, up to the present time.

X 7. You say the elevator that Sam. Sherwood built, on which you worked, was burned; when was it burned and when was the one that now stands on the site of that one built?

A. I can't tell the year, although I was at the fire.

X 8. Was this fire as late as 1864?

A. I could not say; I paid no attention to the time.

5192 X 9. How far was it from your house to the elevator that burned?

A. I should call the distance 3 blocks.

X 10. Was this a large elevator, and was it an important building in that locality at that time, and did the burning of it create a good deal of excitement?

A. It was good size; it was large for this place; it was an important building; yes, some excitement.

X 11. Was there a large amount of grain stored in this elevator at the time it was burned, and was not the burning of it regarded as a calamity and a great loss?

A. There was said to be; it was considered a calamity and a loss.

X 12. Who built the elevator that now stands on the site of the one burned?

A. The Grangers; I don't know who the workmen were.

X 13. State what is your best recollection as to the year the elevator was burned; state as near as you can.

A. I will have to guess at it; I should say somewhere, as near as I can recollect, from 1868 to '70—along there somewhere.

X 14. Will you now state positively that it was not in the fall of 1874?

A. No; I will not, because I don't know.

X 15. You say you saw a well on the west side of the river that attracted you- attention by reason of the method of its construction; what was the method of its construction?

A. Well, as I supposed, it was a pipe driven into the ground, and was told so.

5193 X 16. Where did you reside at that time?

A. I was stopping here in town and my family was at Fairbank.

X 17. Give the names of the members of your family at that time.

A. Myself, Nancy A. Naylor; my daughter's name is Alice Ellen Naylor.

X 18. Who told you that the pipe was driven into the ground?

A. I have forgotten the man's name.

X 19. Did this party who told you the pipe was driven in the ground have charge of the well or own it or control it?

A. I don't know.

X 20. Who made the well?

A. I don't know.

X 21. Did you ever hear who made it?

A. Not to my recollection.

X 21½. Did you ever hear the names of the parties who put it down or what any of them were called?

A. If I did it is passed my recollection.

X 22. Where were they first?

A. I don't know.

X 23. Where did they go to when they left Independence?

A. I don't know.

X 24. How long did the well remain there?

A. I don't know.

X 25. You say that it appeared to you to be a pipe driven into the ground; may it not have been made in some other way and yet have presented the same appearance to you?

A. It might.

5194 X 26. Who was with you at the time you saw this well?

A. I forget.

X 27. How many persons were with you?

A. I can't tell.

X 28. About how many times did you see the well?

A. I don't remember but once.

X 29. How long did the well remain there?

A. I don't know.

X 30. During the time the well remained there did any one explain to you what philosophical principle was involved in the method of obtaining water from the earth by that well different from that and any other kind of a well?

A. I don't remember.

X 31. If such an explanation had been made would you not have been as likely to remember that it was so explained as you would that the statement was made that the pipe was driven into the ground?

A. Probably I would.

X 32. What was the nearest building to this well that you saw?

A. The stone store, now occupied by "Sourbier;" that is my best recollection.

X 33. Referring to plot marked "Exhibit A," you will observe that block 22 is directly north of where you say you saw the well. Was there a blacksmith shop on the S. W. cor. of that block at the time you saw the well?

A. I think there was, but I won't be positive.

5195 X 34. Was there a small building on block 4 directly west of where you saw the well?

A. There was; either on block 3 or 4.

X 35. Was block 4 fenced at that time?

A. I don't remember.

X 36. Was the streets, Main or Center streets, worked around the block on either side at the time you saw the well, or was the ground unbroken except by travel over it?

A. I don't know whether they were worked; the streets were there.

X 37. Could you discover the lines of the streets, or by what could you designate them at that time?

A. Only that they were traveled; that is all I know of.

X 38. How long was it before the Presbyterian church was built that you saw this well?

A. I don't recollect certain.

X 39. When was the Presbyterian church built?

A. I don't remember the time.

X 40. State, as near as you can, how far west of where the Presbyterian church now stands is it to where you say you saw the well in 1861.

A. I can't tell the distance; it might have been just where the church stands; as near as I can recollect, it was 2 or 3 rods; I think it was west of the church.

X 41. Was there a large tree near the well at the time you saw it?

A. I don't recollect.

5196 X 42. What business was you engaged in in 1864?

A. I don't just remember.

X 43. What business was you engaged in in 1866?

A. I was building then; commenced to build; I bought my lots and commenced building, I think.

X 44. In what part of Independence were you building at that time?

A. On block 19, Ball's addition to Independence, Iowa.

X 45. How far is that from the Illinois Central depot?

A. It is nearly 3 blocks south.

X 46. Did the kind of well you say you saw, where the tube appeared to be driven into the ground, go into general use directly after you saw this well?

A. I did not see any more of them for several years.

X 47. When and where did you see the next well similar to the one you say you saw in 1861?

A. Not that I remember.

X 48. Was this 1st well you say you saw put down under a patent?

A. Not that I remember.

X 49. When did you first hear of a patent on a driven well?

A. I don't remember.

X 50. Do you — whether any person or persons paid the parties who put down that 1st well or for the material used in making the same?

A. I do not.

X 51. Did the party owning the ground ever claim to have
5197 paid for that well or for the material of which it was made
or have proprietary interest in it?

A. I don't know.

X 52. Do you know or can you tell for what reason that well was put down?

A. No, sir.

X 53. It seems very strange that strangers should come here whom nobody knew and should spend their time and money in putting down a well on another man's property and allow of its indiscriminate use for some weeks without having some pecuniary object in view. Can you, and, if so, please —, state what they claim their object to be?

A. I can't.

X 54. And do you mean to be understood as concluding that these men put down this well and spent some time in Independence with no other ostensible business, and that during the time they were so putting down and using that well they did not publicly proclaim their purpose and announce their proprietorship and the method they there exhibited of obtaining water from the earth in so unprecedented, cheap, and novel manner?

A. I do so conclude; I never saw the men and did not hear their purpose.

X 55. Judging from what you have seen and heard and
5198 know, did they conceal or seem anxious to conceal any portion of their operations in making that well from the public?

A. No; there was not.

X 56. This well was put down on an open common, was it not, so that it could be seen from the streets and surrounding territory?

A. It was.

X 57. Was there anything in the process of making that well, as explained to you and as you understood it and as you now understand it, that any mechanic or any ordinary handy man could not have done after once having seen such a well made?

A. No.

X 58. Could you yourself have made such a well after having seen one made?

A. I could.

X 59. Did you discover any means or can you explain by what means the parties who put down that well could reap any pecuniary advantage from putting down such a well under the necessary heavy traveling, hotel, and other expense to which they were subject unless they controlled or worked under a patent?

A. I can't.

5199 X 60. Have you any reason for believing that this method of making wells and procuring water from the earth was known or in use previous to the making of the well on block 3, on Stoughton & McClure's 2nd add. to Independence, Iowa?

A. I don't know; I have no reason for believing there was.

X 61. If no such well had been previously made would you not consider that the persons who made that well would be entitled to a patent thereon?

A. Yes, sir.

X 63. Did you ever hear that the persons who made that well did have a patent upon it?

A. I did not.

X 63½. What do you know or what did you ever hear and who from anything about any patent in connection with that particular well?

A. I don't know that I ever heard that there was a patent on it?

X 64. When was your attention first called to that particular well in any manner after you first saw it?

A. When the collection of royalty first begun.

X 65. Who called your attention to it?

A. There were so many I could not tell; I could not name one man.

X 66. Please state the name of any party who mentioned it to you recently.

A. Tom Tyson, Hovey, Sam. McEwen, and Col. Lake.

5200–5207 X 67. This particular well and the date of its being put down has been fully and frequently talked about within the last two or three years in this community, has it not?

A. Yes, sir.

X 68. It is pretty generally understood in this community, is it not, that Col. Lake intends to establish the putting down of that well in 1861, and by so doing defeat Green's patent?

A. With that and other testimony, as near as I can tell.

Cross-examination rests.

Redirect:

R. D. 1. Do you know who owned the land on which that well stood that you saw in 1861?

A. I do not.

R. D. 2. Do you know who owned this patent and who put it down?

A. No, sir.

R. D. 3. Are you a mechanic; and, if so, what is your trade?

A. I am a carpenter.

(S'g'd) S. NAYLOR.

Subscribed and sworn to before me this 13th day of October, A. D. 1880.

[SEAL.] (S'g'd) JOHN J. NEY,
Notary Public.

5208 DEFENDANT'S EXHIBIT IN REBUTTAL No. 1. J. J. Ney, Notary. Independence, Iowa, Sept. 28, 1880.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted Melvin C. Chamberlin January 30th, 1866, No. 52267, for improved earth borer.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this thirteenth day of September, in the year of our Lord one thousand eight hundred and eighty, and of the Independence of the United States the one hundred and fifth.

[SEAL.] (S'g'd) E. M. MARBLE,
Commissioner.

5209 United States of America to all whom these letters patent shall come:

Whereas Melvin C. Chamberlin, of Warsaw, New York, has alleged that he has invented a new and useful improved earth borer, which he states has not been known or used before his application; has made an oath that he is a citizen of the United States; that he does verily believe that he is the original and first inventor or discoverer of the said invention, and that the same hath not, to the best of his knowledge and belief, been previously know- or used; has paid into the Treasury of the United States the sum of thirty-five dollars and presented a petition to the Commissioner of Patents signify-
5210 ing a desire of obtaining an exclusive property in the said invention and praying that a patent may be granted for that purpose:

These are, therefore, to grant, according to law, to the said Melvin C. Chamberlin, his heirs, administrators, or assigns, for the term of seventeen years from the thirtieth day of January, one thousand eight hundred and sixty-six, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention, a description whereof is given in the words of the said Melvin C. Chamberlin in the schedule hereunto annexed and is made part of these presents.

5211 In testimony whereof I have caused these letters to be made patent and the seal of the Patent Office has been hereunto affixed.

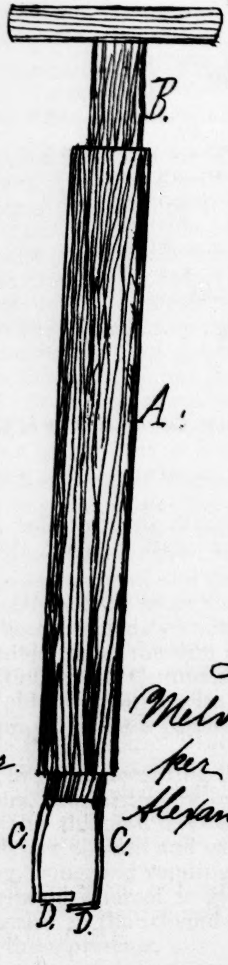
Given under my hand, at the city of Washington, this thirtieth day of January, in the year of our Lord one thousand eight hun-

M. C. Chamberlain.
Earth Auger

No 52.267.

Patented
Jan. 30. 1866.

No. 16.
Andrews
et al.
v.
Hovey.
} p. 5215.



Witnesses:
John P.
Charles; Alexander.

Inventor:
Melvin C. Chamberlain
per
Alexander & Mason

(Endorsed) Filed Oct 21 1880
E. R. Mason Clerk.

dred and sixty-six, and of the Independence of the United States of America the ninetieth.

[SEAL.] (S'g'd) W. T. OTTO,
Acting Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.
(S'g'd) T. C. THEAKER,
Commissioner of Patents.

5212 *The Schedule Referred to in these Letters Patent and Making Part of the Same.*

To all whom it may concern:

Be it known that I, Melvin C. Chamberlin, of Warsaw, county of Wyoming, and State of New York, have invented certain new and useful improvements in machines for forming subterranean reservoir for wells, and do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon making a part of this specification. In the accompanying drawings A represents a hollow metallic cylinder. B is a shaft provided with a suitable handle at the top, and at the bottom of said shaft two
5213 knives are secured, one on each side of the shaft, as seen at
c c. These knives are sprung at the lower portions and expand somewhat wider than the diameter of the cylinder. The ends of said knives are turned over, forming a disk at the end of each knife. One of them is also a little longer than the other and overlaps the shorter one.

The shaft B is passed into the cylinder A by compressing the knives *c c*, and when the shaft is passed through the cylinder the knives spring outwards.

Thus, it will be seen, that whenever it is in use for boring wells the shaft is turned by means of the handle, causing the
5214 knives to cut and loosen the dirt and other substances which
fall between the knives and rest upon the disks D D when the shaft is withdrawn from the cylinder and the dirt emptied. The cylinder is then to be pressed down, the shaft again inserted, and the operation continued until the well is the required depth.

Having thus fully described my invention, what I claim as new, and desire to secure by letters patent, is—

The combination of the shaft B, the knives *c c*, together with the hollow cylinder A, constructed and used as and for the purposes herein set forth.

In witness that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

MELVIN C. CHAMBERLAIN.

S. M. SMITH.
L. L. THAYER.

Ex'd: S. P. P., M. V.

(Here follows diagram marked p. 5215.)

5216 C. T. KIMBALL, of lawful age, being produced, sworn, and examined on the part of the defendant, deposeth and saith as follows:

Int. 1. What is your name, place of residence, and occupation?

A. My name is C. T. Kimball; age, 50 years; reside at Jesup, Buchanan Co., Iowa; by occupation a travelling agent.

Int. 2. Are you the same C. T. Kimball that has been previously examined by the defendant in this case?

A. Yes, sir.

5217 Int. 3. Do you know John Q. Royce, now of Smith Center, Kansas, but formerly living at Independence, Iowa?

A. Yes, sir.

Int. 4. Did you on or about the 24th day of May, 1879, make an affidavit at his request in this case?

A. Yes, sir.

Int. 5. State now where you made that affidavit and before whom you swore to the same.

A. At Independence, Iowa; before M. R. Eastman, at his office.

Int. 6. State now what you said to Royce and what he said to you in regard to this affidavit, and also in regard to any other affidavit that you had made; state, as fully as you now remember, that conversation.

A. He wanted my affidavit in this drive-well case; he drew up an affidavit for me to sign and swear to. I refused to make affidavit, as I told him I had already made affidavit concerning this well. He then drew up another affidavit, describing a well put down a few years after the one described in the affidavit made before, that I didn't sign or make; he said he would like my affidavit as to this well, as it might be of some service; that's the substance.

Int. 7. In this conversation did you tell Royce that you had already made an affidavit for Mr. Hovey describing the first well you saw at the place where these wells were located?

5218 A. Yes, sir.

Int. 8. State what Royce said, if anything, about his not wanting anything in this affidavit about the first well.

A. He said he would take the affidavit describing this well, as it might be of service to him. I had already refused to sign the affidavit describing the first well, but would give one describing the second one, which I did.

Int. 9. Did you tell Mr. Royce that this affidavit which you signed for him referred to the second well that you had seen at or near the same place?

A. Yes, sir.

Int. 10. What was done with the affidavit that Royce drew up and you did not sign?

A. I refused to sign it, and I think between us we destroyed it right there.

Int. 11. Who was present in Mr. M. R. Eastman's office while Royce was preparing these affidavits?

A. I don't remember; there was several out and in.

Int. 12. Did Mr. Royce, at any time, state that he knew or had been told that you had given an affidavit to Mr. Hovey in this case?

A. He told me he had been told that I had made an affidavit in this case.

5219 Int. 13. Look at the paper here shown you and state whether that is the affidavit that you gave to Mr. Hovey, the defendant in this case?

The paper here shown the witness purports to be an affidavit and has marked on it "D," "S. Newman, notary public, Independence, March 22nd, 1881."

A. It is.

Defendant now offers in evidence the said affidavit, signed by C. T. Kimball and purports to be sworn to 30th day of December, 1878, and asks the commissioner to endorse the affidavit, "Defendant's Exhibit Evidence of C. T. Kimball, marked April 1st, 1881, I. N. Whittam, U. S. commissioner, Cedar Rapids, Iowa," and for the commissioner to attach a copy to this deposition, which the commissioner marks as requested, and attaches a copy thereof hereto, marked Exhibit "A."

Int. 14. Do you know the hotel at Independence, Iowa, formerly known as the "White House," now known as the "Merchants' Hotel?"

A. Yes, sir.

Int. 15. Did you know of T. J. Burr and his sons, O. Burr and George Burr, occupying that hotel and keeping it as such?

5220 A. Yes, sir.

Int. 16. When was it that the said Burrs first commenced keeping said hotel? State as nearly as you can.

A. I think the year 1863; am not positive as to commencing.

Int. 17. While they kept said hotel did you visit the same frequently?

A. Very seldom went in there.

Int. 18. Did you at any time while said Burrs kept that hotel go into the basement to see any pump material that was there?

A. I don't think I even went into the basement of the hotel
5221 while they kept the house; never saw any pump material in the house while they were there, that I remember of.

Int. 19. Did you, in 1866, see Charles Brown and John West at that hotel having in their charge material for making iron wells or driven wells?

A. I never did.

Int. 20. Do you remember of a well being put down on the west side of the river at Independence, Iowa, of which J. M. Chandler and J. B. Turner purchased the right to Minnesota?

A. I don't.

Direct examination rests here.

Cross-examination on the part of the plaintiffs:

Cross-interrogatory 1st. Do you know how this second well you refer to was put down; how it was constructed?

A. I am not certain that I saw it put down; I do not know how it was put down or constructed.

X Int. 2. Do you know who put it down?

A. I do not.

X Int. 3. Do you know when it was put down?

A. I think during the year- 1863–'4 or '5.

X Int. 4. Have you no impression what year it was other than that general statement?

A. I am not positive as to the time.

X Int. 5. Will you swear it was not in '66 it was put down?

A. I am quite positive it was before '66.

X Int. 6. Do you recollect any circumstance that enables you to say you are quite positive it was not in '66?

5222 A. I used to see the well as I passed by, and drank from it before 1866.

X Int. 7. How do you know it was before 1866—what circumstance can you state that makes you know it was before 1866?

A. My business led me by there before the year 1866 and not afterwards.

X Int. 8. What business was you engaged in before '66 that led you by there?

A. I bought the crop on a farm owned by Williams and gathered the same, which directed me by there every day or so.

X Int. 9. What year did you buy the crop on this farm?

A. I am not positive — the year.

X Int. 10. Are you able to swear positively that it was not '66 that you got the crops on this farm?

A. I am not positive, but quite sure.

X Int. 11. What time in the year did you buy the crops on this farm?

A. The latter part of the season.

X Int. 12. How late in the season?

A. It might have been August or September.

X Int. 13. Then this second well you saw was in the fall of the year, was it?

A. I saw it in the fall of the year; I saw it frequently during the summer.

X Int. 14. You saw it, then, before you bought these crops?

A. I watered my horses at the well going to and from the farm; yes, I saw it before I bought the crops.

X Int. 15. How long before you bought the crops?

A. I cannot say.

X Int. 16. How long did you see this well there from the time you first saw it?

A. I noticed it more particularly that summer and fall.

5223 X Int. 17. How ear-y in the summer and how late in the fall did you see it?

A. I can't say.

X Int. 18. How near was it to the spot where you saw the well of 1861?

A. I think it was a few rods east.

X Int. 19. About how many rods?

A. Perhaps 4 or 5 or 6 rods.

X Int. 20. Where was the well of 1861 located with reference to the block on which the Presbyterian church is now located?

A. The northwest corner of the block, or in the street west of it.

X Int. 21. About how far from the northwest corner was it?

A. I am not able to say.

X Int. 22. Are you sure that this well of '63–'4–'5 that you say you saw was not located on the northwest corner of the block on which the said Presbyterian church now stands and on the northwest corner of the north corner lot?

A. I am quite sure it was southeast of there.

X Int. 23. Then you are sure it could not have been on the northwest corner of the block above referred to and in the north corner lot?

A. It might have been, but I think it was further east; but am not sure.

X Int. 24. Are you positive that this second well you saw was not in the northwest corner of the northwest corner lot of the block referred to?

A. It might have been, but I would locate it further east.

X Int. 25. You think 4 to 5 rods further east of said corner?

A. I say 3 or 4 rods southeast of said corner.

5224 X Int. 26. What kind of a pump was in this second well you say you saw?

A. An iron pitcher pump or cistern pump.

X Int. 27. Do you know how it was attached to the tube that was in the ground?

A. I think it was screwed on the pipe.

X Int. 28. Was there a platform around the well?

A. No, sir.

X Int. 29. Was there a platform around the other well you saw there?

A. No, sir.

X Int. 30. Was there a blacksmith across from the way from this second well the time you saw it?

A. I think there was west of there a little.

X Int. 31. Who was occupying it, do you know?

A. I don't remember.

X Int. 32. Was it a man by the name of Keyes?

A. I don't remember.

X Int. 33. Are you sure there was a blacksmith there at all at that time?

A. I think there was.

X Int. 34. How far and in what direction from this second well was the blacksmith shop?

A. Perhaps 6 or 8 rods northwest.

X Int. 35. Across the street from this well was it north?

A. Yes, sir.

X Int. 36. Who was living the nearest to this second well at that time?

A. I can't say.

X Int. 37. Was it regarded as a great curiosity?

A. I presume it was.

X Int. 38. Do you know whether it was or not?

5225 A. It was to me.

X Int. 39. Do you know whether it was by others?

A. I presume it was.

X Int. 40. Why do you presume it was?

A. There being no well dug, no platform, no earth taken from the ground, but a pipe running into the ground pumping water from it on the grass ground without disturbing the earth, made it a curiosity for me.

X Int. 41. Then you regarded it as quite a novelty?

A. Yes, sir.

X Int. 42. You thought it something new under the sun, did you?

A. I had seen such wells before.

X Int. 43. Then if you had seen such wells before, why did you regard this as such a great novelty, to excite your curiosity so much?

A. I don't know that I was any more excited than I was when I see the first well made.

X Int. 44. You had seen the first well made and knew how it was made and how it operated, didn't you?

A. Yes, sir.

X Int. 45. And still when you see this other your curiosity was excited again?

A. It was, to know they could make wells at other locations.

X Int. 46. Well, but this was substantially in the same location and the same soil; was it not?

A. It was not substantially in the same location; must or might have been the same.

X Int. 47. There was very little difference in the location, wasn't there?

5226 A. A few rods only.

X Int. 48. Did you hear any general expressions of curiosity at the second well?

A. Can't repeat any expressions of curiosity made by any one. I might have heard some and might not. I can't remember as to that.

X Int. 49. Did the newspapers at the time published at the time in Independence refer to it as a great curiosity?

A. I don't know what they said, if anything.

X Int. 50. Was anybody offering the rights to make these wells for sale there at the time you saw the second well?

A. Not that I know of.

X Int. 51. Was there anybody offering for sale the right to make these wells at the time you say you saw the first well?

A. Not that I know of.

X Int. 52. Was the point that went into the perforated tube used in the first well made of wood or iron?

A. Iron.

X Int. 53. You are positive there was no wood, are you?

A. I am.

X Int. 54. Are you positive, after driving the tube into the ground in case of the first well, a rod was not run down in the tube and the point driven out of the end of it?

A. I didn't see anything of the kind, and I saw it drove down.

X Int. 55. Was there more than — man with the party that showed you the point to this first well you referred to?

A. No, sir.

X Int. 56. He was alone, was he?

A. I think he was.

5227 X Int. 57. Did he say anything about—that he had a patent on the invention or about selling rights to use it?

A. No, sir.

X Int. 58. Did he not say anything about having a right or a patent for the process for making or manufacturing wells?

A. I don't think he did.

X Int. 59. Did he not tell you there was a patent on a process for driving a well?

A. I don't remember hearing him say anything of that kind.

X Int. 60. Did he not say there was a patent on the process of making a well by driving a pipe down into the earth and inserting in the tube thus driven an instrument which could be turned round and used to cut out a reservoir as large as a barrel, and that this sand could be pumped out with a sand pump?

A. He spoke to me and explained a process to bore out and make a reservoir at the bottom of the well and pump out the sand with a sand pump.

X Int. 61. Didn't he say that the tube was driven into the ground in connection with that?

A. I understood him — the reservoir was made after the pipe was driven.

X Int. 62. Did or did he not say there was a patent on this process?

A. I don't remember of hearing any patent mentioned, yet he might, but I don't remember.

X Int. 63. Try and refresh your recollection and give your best impressions whether he did so or not.

A. I don't remember of him mentioning patent.

5228 X Int. 64. Do you think he did or did not?

A. I think he did.

X Int. 65. What did he say his object was in putting one of these wells down in Independence—as an experiment or an advertisement—I refer now to the well you say you saw in 1861?

A. He wanted to show how he could make a well and get water where there was no rock to interfere.

X Int. 66. Did he just do it just to satisfy your curiosity or as an experiment or as an advertisement?

A. I don't know what his object was.

X Int. 67. From all he said and done you can't say what his object was in putting it down?

A. No, sir.

X Int. 68. Do you — of his negociating with any *with any* parties while he was in Independence in regard to this well?

A. No, sir.

X Int. 69. How long did he stay there?

A. I think 2 or 3 days.

X Int. 70. Was you with him most of the time?

A. A portion of the time.

X Int. 71. Did he advertise these wells?

A. I don't know.

X Int. 72. He was stopping at your hotel all this time, was he?

A. Yes, sir.

X Int. 73. Pretty talkative kind of a fellow?

A. Yes, sir.

X Int. 74. Did he say what his business was?

A. Don't know as he did.

X Int. 75. Did he say where he was going to or where he came from?

5229 A. I think he said he came from the State of New York, but did not say where he was going; I think he went West, however.

X Int. 76. When you started over to make this well with him where did you get this iron pitcher pump and the gas pipe to make it with?

A. He had with him a box, with sections of gas pipe in the box; do not know where he got the pump; might have had it with him, but don't recollect seeing it.

X Int. 77. Did he have the pump with him when you and him left your hotel to go across the river?

A. I don't remember of seeing it anywheres; he might have had it.

X Int. 78. In whose charge did he leave this well when he went away?

A. I don't know.

X Int 79. After you and him put it down did he say anything about before he left to you what he intended to do with it or what you should do with it, or if he had made any disposition of it?

A. No, sir.

X 80. You are sure there was not another man with him during this time?

A. Not at the hotel stopping with me that had anything to do with this well with him.

X Int. 81. You remember seeing anything in the papers at the time of the first well about it being a great curiosity?

A. No, sir.

5230 X Int. 82. Why do you now state that you don't think this man said anything about a patent at the time of your conversations with him about this first well, when you said in your affidavit made on the 30th day of December, 1878, and referred to herein as Exhibit "A," that you remembered that this man told you that there was a patent on a well made by driving a pipe down into the earth, &c.?

A. It might be that he mentioned a patent, but I don't think he did; my best recollection is that he did not.

X Int. 83. But why do you state now that it is your best recollection that he did not when, in your said affidavit just referred to, you say you remember he did?

A. By reflection and study, believing it to be true.

X Int. 84. What led you to so much reflection and study about this matter, and that causes you to remember one thing one way at one time and at another way another time?

A. By being renewed by the evidence or the affidavit of this transaction that happened years ago.

X Int. 85. What affidavit that renewed your recollection in this way?

A. This and one taken previous *taken* to this one in the same case.

X Int. 86. What was the other affidavit you refer to?

A. The one exhibited here to me to-day.

X Int. 87. What other one do you refer to?

A. None that I know of.

5231 X Int. 88. How came it that this affidavit exhibited here to-day changed your remembrance of the transaction when it was made over 2 years ago and simply shows that your memory then of whether there was a patent on this invention or not is different from what it is now?

A. It might have been that this party told me there was a patent on it at that time; he might or might not; my best recollection is that he did not; I am not positive about it, either that he did or did not.

X Int. 89. If it is your best recollection that he did not at this time, why did you state in this affidavit just referred to, marked exhibit "A," that you remembered when that was made that he did say there was a patent on it?

A. I don't think I said so in that affidavit.

X Int. 90. If you did, it was not true, was it?

A. It might have been.

X Int. 91. Well, why do you make different statements now than you did when you made that affidavit?

A. I haven't meant to, nor do I think I have.

X Int. 92. Now look at that affidavit and then tell the commissioner if you still think you didn't make different statements.

A. It has reference to the reservoir and not the well; the mode of making this reservoir that this party claimed was patented or had been, which I had reference to in the affidavit.

X Int. 93. Did you not, sir, in that affidavit state that this man told you that there was a patent on a well made by driving a pipe down into the earth and inserting into that a machine that folded and opened on the principle of an umbrella; that the ribs of 5232 this machine were steel knifes and when below the pipe could be opened and turned round and cut out a reservoir as large as a barrel, and this dirt could be pumped out by a sand pump, but this man claimed in sandy or gravelly soil he could make a well without cutting out the earth, and that gravel and sand was a sufficient reservoir.

A. I think I did.

X Int. 94. That was true, was it?

A. I think it was; I understood it so far as the reservoir was concerned.

X Int. 95. Now, sir, do you pretend to say that you understood the man that the patent was on the reservoir and not on driving the well?

A. I understood by the man that wells could be drove and reservoirs made, if required, by this reservoir plan which he explained to me.

X Int. 95½. Question re-read to witness and asked to answer the same.

A. I took it from the talk it was on the reservoir; it might have been on both, but he dwelt more especially on the reservoir.

X Int. 96. Then it was your understanding that there was no patent on the driving of a well at that time?

A. There might have been and might not; I did understand there was on the driving the well.

X Int. 97. If you was not by at the time you say this second well was, and didn't know how it was constructed, why did you state in this affidavit that you refer to, that you gave Mr. Royce, the manner of its construction and how it was made.

5233 A. Having seen the first well made, the second well having the same outward appearance, I judge it was made the same as the former well, as there was a close resemblance.

X Int. 98. Do you know whether or not the second well was driven all the way down from the surface or not?

A. I do not.

X Int. 99. Why did you state in this affidavit that you gave Mr. Royce, that is referred to in your testimony heretofore given in this case, that the well was driven from the top of the ground down, and now turn around and say you do not know whether it was not?

A. It had the appearance of the first well and I know of no other way that it could be made.

X Int. 100. Did you ever hear of some persons by the name of Brown and Chandler being in Independence and trying to sell patents to put down these drive wells?

A. I never did.

X Int. 101. Did you ever see a copy of a patent issued to one Chamberlin for constructing reservoir wells; issued about the year 1865 or '6?

A. Never did that I know of.

X Int. 102. Will you swear that you did not get this description that you set forth in your affidavit of December 30th, 1878, and produced here to-day of the manner of constructing reservoir wells from the patent issued to one Chamberlin about the year 1865 or '66?

A. I never did.

X Int. 103. Did you ever know a man by the name of
5234 Charley Brown or a man by the name of Chandler putting
down wells at or near Independence or selling patent rights for putting down the same?

A. I never did.

X Int. 104. Are you sure that there was no slots in this point that was used in the first well?

A. I don't think there was.

X Int. 105. Was the upper end of the point smaller or larger than the tube?

A. I think about the same size as the pipe.

X Int. 106. Was not the point larger in the diameter than the pipe in some parts of the tube?

A. I think about the same size.

X Int. 107. Why do you state this now when the drawing made by you in this affidavit exhibited to-day of this tube and point shows that the point is larger than the tube, and why did you say in that affidavit that the point was larger at the top than the pipe?

A. I think the point of the tube was the same size of the pipe; perhaps a collar set on over it, which would increase the appearance of the size of the point.

X Int. 108. Is this all the explanation you wish to make of these discrepancies and statements?

A. I don't like to answer that question, as I don't admit any discrepancies or misstatements.

X Int. 109. Why do you say to-day that this second well was made from 3 to 5 rods east of the point where the first well was put down and that the first well was put down at or near the northwest corner of the block on which the Presbyterian church now
stands when you stated in the affidavit made for Mr. Royce
5235 and referred — in your testimony heretofore given in this case
that the well referred to therein, called by you the second well, was put down in the northwest corner of the block on which the Presbyterian church is now located and on the northwest corner of the north-corner lot?

A. By carefully looking over the ground several times since this suit was brought the location which I have given was the location of these wells to the best of my belief.

X Int. 110. How long was it after this well was constructed that you saw it first?

A. I don't know how long it was.

X Int. 111. Did you ever hear anything more of a drive well after this man was in your place, in '61, and up to the time that you saw the second well?

A. Nothing that I remember of.

X Int. 112. How many feet did he drive this first well down, and what did he drive it with?

A. I think he drove it 12 or 15 feet; he drove it with a maul or sledge.

X Int. 113. Did he drive it from the top of the ground?

A. Yes, sir.

X Int. 114. Might he not have driven it from 20 to 25 feet?

A. He might have done —, but I don't think he did.

X Int. 115. What's your best recollection?

A. He drove — about 12 or 15 feet.

X Int. 116. Now, don't you know, as a matter of fact, that he drove it 22 feet?

A. I do not.

X Int. 117. Will you swear he did not?

5236 A. I don't think he did.

X Int. 118. Are you positive he did not?

A. I am quite sure he did not.

X Int. 119. If that is true why did you swear in the affidavit introduced to-day, made by you December 30th, 1878, and referred to herein as Exhibit "A," as follows: "He got a maul and drove the point into the ground, then he screwed onto that a piece of gas pipe and drove that down, and so on, putting on several pieces and driving down until the said gas pipe was down some 22 feet?"

A. It might have been 20 feet, but I don't think it was.

X Int. 120. Why did you make these widely different statements at different times?

A. I don't think I have; I haven't intended to.

X Int. 121. How many joints of pipe did you take over with you to make this well?

A. I don't know.

X Int. 122. What was their length?

A. From 4 feet and longer—different lengths.

X Int. 123. Was there a blacksmith shop near this place at the time?

A. I am not positive.

X Int. 124. What's your impression of it?

A. There was soon thereafter, if not at the time.

X Int. 125. Who lived nearest to the place at the time?

A. I don't know.

X Int. 126. Who lived in the vicinity of this well at the time?

A. Dr. Warne, S. S. Allen, Thomas Tyson, and J. E. Trexler.

X Int. 127. What time in the spring of 1861 was this well put down, do you say?

5237 A. I think some time in April or May. I'll say April.

X Int. 128. Do you know D. S. Deering?

A. Yes, sir.

X Int. 129. Where did he live at this time?

A. I think he lived between Independence and Winthrop; perhaps at Independence.

X Int. 130. Which side of the river did he live on at Independence?

A. On the west side.

X Int. 131. How far from this well?

A. About 13 rods.

X Int. 132. How long did this well remain there after it was put down?

A. I don't know.

X Int. 133. Did this man have any material left after he got this built in 1861?

A. I don't know; he had a tool box, but I don't know what it contained; that he carried this pipe in.

X Int. 134. Describe this box which he had this pipe in.

A. I think about 5 or 6 feet long, a foot high, about 18 inches or 2 feet wide.

X Int. 135. Did you take this tool box with you when you went across the river to make this well?

A. I think he did.

X Int. 136. Whose team took you over?

A. My impression — Thomas Sherwood's team; a pair of bald-face horses.

X Int. 137. Was the pump in the box?

A. I don't remember where the pump was or where he got it.

5238 X Int. 138. Did you — across to the blacksmith shop to get anything done when you was putting it down?

A. We borrowed a pair of horses to get upon to drive and a maul, but I can't say from whom?

X Int. 139. How often did you see this pump after it was made?

A. I saw it several times during the spring and summer.

X Int. 140. Do you know whether it was used much or not?

A. I don't know how much it was used.

X Int. 141. Why do you now state that you don't know how much it was used when you stated in your affidavit introduced to-day that it was used a great deal?

A. I wasn't there all the time when it was in use, and have no means of knowing how much it was used.

X Int. 142. If you had no means of knowing how much it was used why did you state in your affidavit that it was used a great deal?

A. What I saw it used would be using it a good deal.

X Int. 143. Was Thomas Sherwood there when it was put down?

A. I don't think he was.

X Int. 144. Why did you say a moment ago that Sherwood took you over with his team?

A. I didn't say so.

X Int. 145. Can you now, after deliberating over the matter so long, give the name of the man that put down this first well?

A. No, sir.

X Int. 146. Was it Brown or Chamberlin or Chambers or Chandler?

A. I don't remember his name.

X Int. 147. About how old a man was he?

5239 A. I would think about 40 years old.

X Int. 148. You say the man was there 2 or 3 days, and was a great talker. What did he talk about principally?

A. I can't say; can't recall the subjects.

X Int. 149. Did he talk much about this great novelty he had?

A. He interested me in this boring a hole in the ground through the pipe, and explained the mode of doing so, which I had never heard before.

X Int. 150. How many was by when this well was built of 1861 and who?

A. There was several, but I can't say who. I think Thomas Tyson and Dr. Warne came there, and others, but am not positive who was there.

X Int. 151. Did you hear any one express a desire to have one of these wells or ask him to put one down for them?

A. No, sir.

X Int. 152. Did you and this man go back again over the river to see this well before he went away?

A. I think I went back to the hotel before he did, and I was never there with him again.

X Int. 153. What was he doing at your place the 2 or 3 days he was there?

A. He spent a portion of time down-town; the balance of the time as a guest of the hotel in company with the boarders and transient guests there.

X Int. 154. Was he trying to sell these wells or the right to put them down?

A. I didn't hear him; he might have been, but not in my hearing that I remember of.

X Int. 155. Did he say he had ever put them down before?

5240 A. I don't remember that he did.

X Int. 156. What did he say was his business?

A. Made no business known to me, further than what I have stated.

Cross-examination rests here.

Re-examination on the part of the defendant:

R. D. Int. 1. Did this man show you any papers that purported to be a patent?

A. I think he did exhibit some papers to us down in the basement, but don't know what they were; didn't read them nor look at them.

R D. Int. 2. Did you know anything about a patent on a reservoir, except what this man said to you?

A. No, sir.

R. D. Int. 3. In regard to this affidavit that you made for Royce, at his request, did not you state certain matters in explanation that Mr. Royce did not put into the affidavit, such as stating this well was near the northwest corner of the block or somewhere in that vicinity?

A. Yes, sir.

R. D. Int. 4. In cross-int. No. 119 Mr. Rickel read to you, as he
claimed, a portion of this affidavit, the last clause of which he read
was "and driving down until the said gas pipe was down some 22
feet;" now, in the affidavit that sentence reads, "and
5241 & 5242 driving down until he said the pipe was down some
22 feet." Now, state whether in the affidavit, Exhibit
"A" hereto, you stated what this man said about it at the time, as
you then recollect it.

A. I have no means of knowing how deep it was down, only by what was said.

R. D. Int. 4½. When this first well was down how far did the man say he had got the pipe down?

A. I think 15 or 20 feet.

R. D. Int. 5. In your cross-examination you state that Deering might have lived between Independence and Winthrop. Do you recollect definitely where he did live at that time?

A. I am not positive whether he had moved in town or not.

R. D. Int. 6. You state, in cross-examination, that this man who made the first well was a guest there with your boarders and others. State, now, if you remember any one that boarded there at that time.

A. Col. Lake and his wife were boarders.

R. D. Int. 7. How long had Mr. Lake been married at that time?

A. But a short time.

R. D. Int. 8. Was this well put down the next spring after Mr Lake was married?

A. Yes, sir.

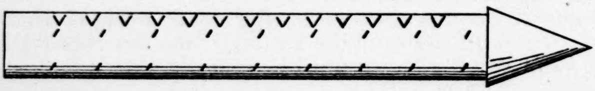
(Signed) C. T. KIMBALL.

5243 EXHIBIT "A."

I certify that this is the paper or affidavit referred to in C. T. Kimball's deposition herewith, marked Exhibit "A," and that the same is a true copy of the original shown to the witness, being copied and compared by me.

I. N. WHITTAM,
U. S. Commissioner.

T. C. Kimball, of Jesup, Iowa, being duly sworn, deposes and says: I kept the hotel then known as the Revere House, but now known as the Merchants' Hotel, at Independence, Iowa. Thomas Sherwood and myself were in company keeping that house. We went into the house in the fall of 1860. It was the same fall that Abraham Lincoln was elected President the first time. We staid there together until some time in May, 1861, when I went out. Some time before I went out of the hotel a man came there with a drive-well point. He told me he could make a well by driving a gas pipe into the ground and attaching a pump to it. He showed me the point that he would use on the *on the* gas pipe. This point was of iron, and the following drawing represents it as nearly as can be:



The point was sharpened and was slightly larger at the top end than the pipe. The pipe above the point for some two feet was perforated with small holes to admit the water to the inside. This man, whose name I cannot now recall, talked to me considerably about this kind of well—how cheap it was. He and I went over the river, on the west side of the river, at Independence and went near to the northwest corner of the block on which the Presbyterian church is now built. He got a maul and drove the point into the ground. Then he screwed onto that a piece of gas pipe and drove that 5244 down, and so on, putting on several pieces and driving down until he said the pipe was down some 22 feet. It left the last piece of pipe some 18 inches above the ground. Then he got an iron pump, known as a pitcher pump, and put on the top of this pipe. This pump was screwed onto the top of this pipe, making the pipe and pump attachment air-tight. Then we pumped out water. It was a little roily at first, but soon cleared itself, and was good water to drink. The whole thing—the pump and pipe—stood about thirty inches above the ground—no curbing around it. The pump was used a good deal while it stood there. I pumped water out of it several times myself. I told Tom Sherwood about it. I also talked with Jed. Lake about it.

I do not know the name of the man who drove the pipe. If I had the old register of Sherwood & Kimball while we kept the hotel I could find the name, I think. I remember it was the spring after the winter that we kept the hotel there together and while I was in the hotel. I further remember that it was the next spring after Jed. Lake was married, for he and his wife boarded with us that winter, and I think this was put in while they boarded with us. I further remember about this pump and well, this man told me that there was a patent on a well made by driving a pipe down into the earth and inserting into that a machine that folded and 5245 opened on the principle *than* an umbrella opened and folded. That the ribs of this machine were steel knives, and when below the pipe could be opened and turned around and cut out a reservoir as large as a barrel, and this dirt could be pumped out by a sand pump.

But this man claimed that in sandy or gravelly soil he could make a well without cutting out the earth; that the gravel and sand were a sufficient reservoir.

We tried it, when I described and succeeded in making the well; it was a success.

I am sure this was early in the spring of 1861, from the circumstances above stated.

(S'g'd) C. T. KIMBALL.

The foregoing affidavit was subscribed in my presence and sworn to before me by C. T. Kimball this 30th day of December, A. D., 1878.

Witness my hand and seal.

[L. S.] JED. LAKE,
Notary Public in & for Buchanan County, Iowa.

5246–5249 Defendant's Exhibit Evidence of C. T. Kimball, marked April 1st, 1881—I. N. Whittam, U. S. commissioner, Cedar Rapids, Iowa—a copy of same being attached to his deposition and marked Exhibit "A," I. N. Whittam, U. S. commissioner, "D."

Independence, March 22, 1881.

S. NEWMAN,
Notary Public.

(Endorsed:) Wm. Andrews, complainants, *vs.* George Hovey, defendant. Deposition on behalf of the defendant. C. T. Kimball. Opened & filed May 10, 1881. E. R. Mason, clerk.

5250 JACOB RICH, being called and sworn on the part of the defendant:

1 Q. What is your name, age, residence, and occupation?

1 A. Jacob Rich; age, 48; residence, Dubuque; occupation, U. S. pension agent.

2 Q. How long have you resided in Iowa?

2 A. (22) twenty-two years?

3 Q. Where did you reside and what was your occupation up to 1863, after you come to Iowa?

3 A. I resided in Buchanan Co., Iowa, and was the publisher of a newspaper in that county.

4 Q. What was the name of that newspaper and when did you cease publishing it?

4 A. Part of the time it was called Quasqueton Guardian, published at Quasqueton, Buchanan county, and part of the time called the Buchanan County Guardian, and published at Independence, Buchanan Co.; published from 1856 to 1864 — 1865.

5 Q. How many years and what years was this paper published by you at Independence, Iowa?

5 A. I removed it from Quasqueton in Aug., 1858, and then published at Independence from that time until I sold it out, in 1864 or 1865.

5251 6 Q. While you was publishing this paper at Independence did you know Margaret A. Jordan and Anton Hagaman?

6 A. Yes.

7 Q. Did you purchase any lots or parts of lots from Anton Hagaman for Margaret A. Jordan? If so, give a description of the lots as nearly as you can.

A. I did purchase for Mrs. Jordan of Anton Hagaman a house and lot on Walnut St., Independence.

8 Q. Who owns the residence immediately south of this property and who that immediately north?

8 A. Alexander Smith owns the house and lot immediately south and John McGrady that immediately north.

9 Q. On which side of the river at Independence is this place you bought for Mrs. Jordan of Mr. Hagaman?

9 A. On the east side.

10 Q. On which side of the river did Mrs. Jordan live when you bought this lot for her?

10 A. On the west side.

11 Q. Who were your neighbors on the west side of the river at that time?

11 A. Nearest neighbor was Dr. Geo. Warne and Rev. John Fulton.

12 Q. At that time did you board with Mrs. Jordan?

12 A. Yes.

13 Q. Do you remember of seeing a well at Independence that was peculiar in its construction? If so, state where it was located and where it was that you saw it, as nearly as you can.

5252 13 A. I remember seeing a well on the west side of the river, on the west side of the block where the Presbyterian church now stands, that had a pipe coming up through the earth, and the pipe — up out of the earth about a foot, I should think, upon which there was a small iron pump, and which, I was told at the time, was something novel in construction, being simply an iron pipe driven into the earth, but I do not remember just exactly the year or time when I saw it.

14 Q. State whether or not you was at the time you saw this well the editor of the Buchanan Co. Guardian.

14 A. I think I was.

15 Q. State on which side of the river you lived at the time you saw this well.

15 A. I am not positive.

16 Q. What is your best recollection as to where you lived at that time?

16 A. Am not at all clear on that point.

17 Q. Did you, as editor of this paper, mention this well in your paper?

17 A. I do not know.

18 Q. What was your custom at the time in regard to mentioning such matters in your paper? State fully.

— A. I was in the habit of noticing matters of striking novelty when my attention was called to them and all matters of public interest, but Independence was a town overrun with patent-right men at that time with a variety of novel inventions and we did not generally notice those, except in the way of advertising and for pay.

5253 19 Q. State what time it is that you refer to Independence being overrun with patent-right men; give the years as nearly as you can.

19 A. I should say all the years from 1858 to 1863 or 1864.

20 Q. Do you remember of mentioning this well in your paper that you say you saw at the time it was there?

20 A. I do not.

The direct rests.

Cross-examination:

X 1 Q. Will you describe the well that you saw, as stated in your examination-in-chief, and state whether or not the earth was removed from around the pipe before the pipe was placed in position?

X 1 A. The well that I saw seemed to me to be made simply by a pipe being driven into the ground with the soil compactly around the pipe, the pipe simply putting above the ground through the surface for about a foot and the pump placed thereon; it had no appearance of the earth having been removed.

X 2 Q. You do not know, then, but what there might have been a common well underneath the soil and the earth simply replaced for the purpose of deception?

X 2 A. I am quite positive nothing of that kind was connected with the construction of the well; I remember distinctly being told by the person who pointed it out to me as being a well made by driving the pipe down and my asking him how it was possible not only to drive it down against obstructions, but how any great quantity of water could be got at the bottom, the earth pressing around the bottom of the pipe as compactly as at the top. 5254–5261

(Cross-examination rests.)

(Signed) JACOB RICH.

Subscribed and sworn to before me by the said Jacob Rich this 9th day of May, 1881.

E. R. MASON,
Comm'r Circuit Court U. S. for District of Iowa.

Witness fees:

1 day	1 50
2 miles	10
	$1 60

5262–5264 United States Circuit Court, District of Iowa.

WILLIAM D. ANDREWS *et al.*, Complainants,
vs.
GEORGE HOVEY, Defendant.

Case called October 1st, 1880, at 10 o'clock a. m., at my office, at Cortland, N. Y.

Irving H. Palmer appeared as counsel for defendant; D. L. Hurlbut appeared specially for complainants.

HIRAM WEEKS, produced as a witness on the part of the defendant, being duly sworn, testifies as follows:

5265 Q. 1. What is your name, age, occupation, and place of residence?

5266 A. 1. My name is Hiram Weeks; I am 55 years old; my place of residence is Preble, Cortland Co., N. Y.; my occupation is that of a farmer, and I work out some.

Q. 2. Have you sometimes dug and cleaned out wells?

A. I have.

Q. 3. How many years have you occasionally cleaned out and dug wells?

A. Some twelve to sixteen years.

Q. 4. About how many wells have you dug within that time?

A. About 20, I should think.

Q. 5. Have you been engaged in cleaning out wells in Preble this summer?

A. Yes, sir.

Q. 6. Do you know Mathias Van Hoesen, of Preble?

A. Yes, sir.

Q. 7. Do you know the location of the well on the farm formerly occupied by Wm. E. Tallman in Preble, at the place where the windmill was erected? If so, state.

A. Yes, sir.

5267 Q. 8. Did Mathias Van Hoesen employ you to clean out this well during the present summer? If so, state when it was.

A. He did. It was July some time, but I can't state the week or the day of the month. It was this year.

Q. 9. Did he tell you for whom or for what purpose he wanted you to clean out this well? If so, state.

A. He did. He said a couple of men from Cortland wanted him to have it cleaned out. I have forgotten the men's names.

Q. 10. Did you in pursuance of this employment clean out this well?

A. Yes, sir; I cleaned it out some.

Q. 11. In what condition did you find the well when you arrived there?

A. There had been somebody to work there.

Q. 12. Did any one go with you to the well; if so, who was it?

A. Mr. Mathias Van Hoesen and Seth Aldrich went with me.

Q. 13. State what you did after arriving at the well.

A. I went to taking the dirt and stone out.

5268 Q. 14. Who assisted you, what instruments or appliances did you use, and how did you proceed in taking the dirt and stone out of this well?

A. Mr. Aldrich assisted me. We had a pail and rope. We proceeded very well as far as we went.

Here the Hon. Milo Goodrich appears as counsel for the complainants, conditionally, and will examine *de bene esse.*

A. (Witness, further answering, says:) We took out stone & dirt with this pail. I was in the well & filled the pail and Mr. Aldrich drew it out.

Q. 15. About how deep was the well when you had finished cleaning it out?

A. We did not measure it, and I cannot tell how deep it was.

Q. 16. Give the depth, as near as you are able.

A. I should think it was about 12 feet.

Q. 17. Was this well stoned up with a stone wall? If so, state how it was.

A. It was a stoned-up well.

Q. 18. What kind of stone were used in stoning up this well?

A. There were some cobble and some flat stone use- in it.

Q. 19. In what part of the wall were the flat stone, mainly?

5269 A. The flat stone that I came to were a little south of east.

Q. 20. Were the flat stone used distributed through the wall or were they mainly in one place at or near the bottom or near the top of the well?

A. The flat stone I found were at or near the bottom of the well.

Adjourned to 1.30 p. m.

Parties appeared pursuant to adjournment.
Present: As before.

Q. 21. Did you in your former answer refer to any particular flat stone on the southeast side of said well? If so, describe the location of this stone in the wall; describe the stone as near as you are able.

A. I did. It is a stone in the wall; it projects over a little and is a longish flat stone. It was near the bottom of the wall, near the top of the water.

Q. 22. Did you clear out the well down to the bottom of the wall of the well?

5270 A. I think I did, sir.

Q. 23. What did you find at the bottom? State what you did after cleaning out the well to the bottom, as you say you think you did.

A. I did not find anything. Mr. Van Hoesen spoke to me, saying, See if there is a strainer in there, or an iron curb, or anything the like of that. Mr. Van Hoesen said, Have you got to the bottom of the well? I told him I thought I had. I took my hand & run it around under the wall & got out some sand. Then to convince myself I had a pick there and I scratched around the well & the bottom of the wall to see if I could find anything, but I found nothing.

Q. 24. What did you do, if anything, with the sand that you took out from under the wall?

A. Put it in the pail on top of the dirt to show them I had got to the bottom of the wall.

Q. 25. Did Mr. Van Hoesen say anything to you then? If so, state what it was.

5271 A. He said, If you have got to the bottom of the wall that is sufficient.

Q. 26. What did you then do?

A. I think I then came out of the well.

Q. 27. How did you use this pick? Please describe how you used it in the bottom of this well.

A. There was a short handle in it, & I took one of the horns in my hand & scratched with the other.

Q. 28. How deep into the bottom of this well did you thrust the horn of the pick, & how extensively did you probe the bottom of this well, whether all about and on all sides of the bottom of the well?

A. I put the handle between my legs & took one of the horns of the pick in my hands and I scratched around, all around, and then I stuck it right down, you know. I jammed it down into the bottom of the well. I went all around the bottom in that way. I put the pick down up to the handle or eye of the pick.

Q. 29. How long were the prongs or horns of this pick?

A. About 8½ inches from the eye to the point.

5272 Q. 30. Have you been at this well since you left it after cleaning it out, as you have stated? If so, state when.

A. I have; about ten or eleven days ago. It was a week ago last Sunday. I was there last night again.

Q. 31. Did you go into the well at either of these occasions?

A. I went into the well last night. I also went into the well a week ago last Sunday.

Q. 32. Did you then observe the flat stone in the wall on the southeast side of the well which you have mentioned?

A. I did, sir.

Q. 33. What do you say now, after having been twice at the bottom of the well since you left it after cleaning it out, as to whether or not you had cleaned it out down to the bottom of the wall of the well on the occasion mentioned by you?

A. I said that somebody had been there to work. I declare that I can't tell. I don't know really what you mean.

Q. 34. Do you mean that you do not understand the question?

5273 A. I don't really know what you mean by the question.

Q. 35. I mean did you clean out this well down to the bottom of the wall on the occasion you were assisted by Mr. Aldrich and Mr. Van Hoesen?

A. Yes, sir; I did.

Q. 36. Did your examination of this flat stone on the wall on the southeast side of the well confirm you in the statement that you had cleaned it out to the bottom on the occasion referred to?

A. It did.

Q. 37. Have you measured the depth of this well or seen it measured from this flat stone upward to the surface of the ground since yesterday morning?

A. Yes, sir; I saw it measured by Mr. Callen.

Q. 38. Do you remember what the distance was?

A. Not exactly; it was 12 feet & some inches.

Q. 39. Where is this flat stone in the wall on the southeast side of the well with reference to the bottom of the well as it now is?

A. It is pretty near the water on the southeast side.

5274 Q. 40. Did you measure the water in the well, or see it measured yesterday?

A. I saw it measured.

Q. 41. How deep was it?

A. Five inches of water.

Defendant's counsel here presents to this witness the section of sheet-iron tubing referred to in the testimony of Thomas Ballard, taken before H. J. Messenger, (a notary), at Cortland N. Y., which is marked one of complainants' exhibits for identification, and the copper strainer also referred to in the testimony of Thomas Ballard before said notary, & marked one of complainants' exhibits for identification.

Q. 42. Mr. Weeks, is it possible, in your opinion, that this section of sheet-iron tube and this copper strainer should have been resting upon the bottom of this well and covered by the material therein at the time you were probing the bottom of the well with your pick, as you have stated?

A. It seems possible that it could. It could not have been. I meant it could not have been, of course.

5275 Q. 43. Has your recent examinations of the well enabled you to state with more certainty that you had cleaned the well out down to the bottom on the occasion referred to?

A. No farther than the bottom of the stone of the wall.

Q. 44. Is this well deeper now than it was after you finished cleaning it out?

A. I think it is, sir.

Q. 45. About how much deeper?

A. I should think, probably, 6 to 8 inches; it may be more.

Q. 46. In what part of the bottom is it the deepest, with reference to the center?

A. I should think the center was a little —.

Q. 47. Is the center of the bottom below the bottom of the wall; &, if so, about how much below?

A. I should think from 6 to 8 inches; probably a little more.

5276 Q. 48. Was there any water in the well when you finished cleaned it out on the occasion you have mentioned?

A. There was a very little.

Q. 49. Did you find anything in the bottom of this well except stone, gravel, earth, and water? If so, state what.

A. I did not, sir.

Direct examination closed.

Witness being cross-examined by Mr. Goodrich, *de bene esse*, reserving the complainants' right of moving to strike out the evidence on the grounds stated at the commencement of this witnesses, testimony:

Q. 1. Who called upon you first after your cleaning out of this well to know what you had done there?

A. Staats Morrison did a week or two ago or less; I don't know exactly; I was off threshing.

Q. 2. Was his errand to you from Mr. Van Hoesen, expressing complainants' request that you should come down to Cortland to be a witness for the complainants?

5277 A. I believe he did.

Q. 2½. Did you come as far as Preble village from your house or from where you were threshing & see Mr. Van Hoesen, & did he state to you that the complainants would pay you for coming down reasonably to be a witness for them, & did you say to Mr. Van Hoesen, in substance, that you would come and meet him at the train & come down with him to Cortland to be such witness? Please answer directly.

A. Yes, sir.

Q. 3. Did you meet Mr. Van Hoesen at the train as you had so promised?

A. I did not, sir.

Q 4. Why not?

A. I had a piece of corn I wanted to cut up; it looked cold & I was afraid of a frost & I went & cut up what of it I could, and worked until 3 o'clock in the morning.

5278 Q. 5. Now, Mr. Weeks, after you had seen Mr. Van Hoesen (& please state whether you saw Mr. Van Hoesen at Preble village on that day), state whether or not somebody did or did not advise or say to you that you had not better go down to be a witness.

A. I went to Mr. Van Hoesan's house when I came down to Preble village, and Mr. Van Hoesen says, it's pretty early car time, isn't it? So I told him I would be around the village there somewheres. Mr. Alanson Banks—we were in the tavern, & he says, Where are you going? I told him I was going with Mr. Van Hoesan to Cortland. He says, I wouldn't go. He said they couldn't oblige me to go without a subpœna and the fee, & advised me to go home, but I did not go home, but went to cutting corn and worked until 3 o'clock in the morning, as I have stated.

Q. 6. Did anybody else (& I refer now to a Mr. Conner & Mr. Richard Egbertson) so advise you?

5279 A. I told Mr. Egbertson to tell Mr. Van Hoesen I had gone home, if he enquired for me. I declare I don't remember.

Q. 7. Will you testify that one or the other, or both, did not advise you to go home and not be a witness for the driven-well parties? Answer this question directly, yes or no.

A. I could not tell; I don't remember.

Q. 8. Will you testify positively that one or the other of them did not so advise you on that day & before you left for your cornfield?

A. I couldn't tell; I don't remember.

Q. 9. Will you say & do you say that neither of them did not so advise you on that day?

A. I think they didn't. I don't remember of seeing them that day.

5280 Q. 10. Will you testify positively that neither of them did not so advise you? Please answer this question directly, yes or no.

A. Well, now, just as I said before, I don't remember.

Q 11. You saw Mr. Van Hoesan at his house on that day, did you not? If you did, state what time of day it was you saw him.

A. I should think — was — 5 & 6 in the afternoon.

Q. 12. Did he then inform you that the complainants wanted he should have you come down to state as a witness what you had *down* about cleaning out this well, & that the complainants would pay you your fees & for your time in coming down, or in substance that?

A. Yes, sir; I believe he did.

Q. 13. Did you then & there say to Mr. Van Hoesan that you would meet him at the train at train time & go down & state for the complainants what you had done toward cleaning out the well?

5281 A. I think I did, sir.

Q. 14. Did you then make any objection to going down to be such witness because your fees were not paid you in advance or on any other ground whatever to Mr. Van Hoesan?

A. I says to him, I guess he will have to send an officer, & he says, I am officer enough.

Q. 15. Did you after you said that, as you say you did, tell Mr. Van Hoesan that you would meet him at the train at train time & go down to Cortland as such witness?

A. I don't recollect having any such conversation after that was said.

Q. 16. Now, Mr. Van Hoesan, when he got you to clean out this well he told you, did he not, he did it at the request of Mr. Parsons or the complainants in this action?

A. He told me who it was, but I have forgotten who it was; I was not for himself, but for some other parties whom he named.

Q. 17. You say you have dug & stoned up a number of wells, do you?

A. Yes, sir.

5282 Q. 18. Have the wells you have thus made been in Preble & any of them upon the Preble flats?

A. Yes, sir.

Q. 19. When, in making a dug well, you strike water is it not common to lay the wall of the well, in stoning it up so far as it is under water, with flat stone & not with cobble-stone?

A. If you have the flat stone they use them.

Q. 20. Why?

A. They can bind the wall better with them.

Q. 21. Can't you use and make a wall with flat stone at the bottom of a well up through the water that is in it better & easier than with cobble-stone?

A. Yes, sir; I can.

Q. 22. And isn't it the cus-om, so far as you know, on the Preble flat*t*s of using flat stone for building the wall of the well from the bottom up through the water there is in it at the time of stoning?

A. I guess they use them if they can get them.

5283 Q. 23. Did you ever know of an instance on the Preble flat*t*s when the flat stone were not used in stoning up a well from the bottom up through the water there was in it at the time of stoning?

A. I do not.

Q. 24. Now state what is your experience & knowledge whether it is usual & common on the Preble flat*t* to use cobble-stone in stoning up a wall from the point where the water prevails at the time of stoning to the surface. Please state according to you knowledge and experience.

A. They use them (cobble-stone) a great deal in stoning above the point indicated. I don't know as I do know of an instance when a wall of flat stone was carried up above the water to the surface on the Preble flatts.

Q. 25. Is it not a very difficult thing to lay up a cobble-stone wall under water in a well? Answer according to your knowledge as a dug-well maker.

A. I never so laid one up myself.

5284 Recess taken until 7.30 p. m.

At 7.30 parties all appeared as before.

Q. 26. On the day you came down to Preble & saw Mr. Van Hoesan, as you say you did, intending to come to Cortland to be a witness, as you have stated, had you before leaving your home changed your working dress to another dress in expectancy of going to Cortland?

A. I had.

Q. 27. When was it that you changed your purpose of coming to Cortland that day; was it after or before you had seen Mr. Van Hoesan, and was it after or before you received the advice you say you did from Mr. Banks?

A. It was after I had received the advice from Mr. Banks.

Q. 28. How soon after receiving the advice you say you did from Mr. Banks did you leave Preble village, and where did you go to?

A. It was not more than 10 or 15 minutes before I went up to cutting corn.

5285 Q. 29. How far was the cornfield from Preble village and how far from your home?

A. It is about ¼ of a mile from Preble village and about ½ mile or more from my home.

Q. 30. Did you go home before you commenced cutting corn that afternoon and evening?

A. No, sir,

Q. 31. Then you didn't change the dress you had on to go to Cortland in to your working dress before you commenced cutting the corn?

A. No, sir; I did not.

Q. 32. Did you go home at all until you left your cornfield about 3 o'clock the next morning? And state, if you will, whether it was 3 o'clock or later that you left the cornfield.

A. I did not go home until I quit the cornfield. I thought it was later than 3 o'clock, but my wife said it was not.

Q. 33. How far is the cornfield from any highway?

5286 A. It is not but 2 or 3 rods on the east side to Vandenburg's part, and from the road to my part where I was at work it was about 20 rods. It is Vanderburgh that I refer to.

Q. 34. Had his corn been cut at that time?

A. Not all of it.

Q. 35. Had any of yours been cut?

A. Yes, sir; a little.

Q. 36. When before?

A. Some 2 or 3 days before.

Q. 37. When was this; what month, as near as you can?

A. It was in September, about the 17th, on Friday night.

Q. 38. When did you finish cutting up the rest of your corn there—how long afterward?

A. A week ago last Sunday.

Q. 39. That Friday night the 17th was a pretty dark night, was it not?

A. There was a moon the night I cut the corn.

Q. 40. You fix the night of your cutting the corn as the same night that there was a dance at Preble village, have you not?

A. Yes, sir.

5287 Q. 41. Did you ever before cut corn in the night time down to 3 o'clock in the morning?

A. No, sir; don't think I ever did.

Q. 42. Did you ever before cut corn in the night time?

A. No, sir; don't think I ever did; not that I can remember of.

Q. 43. Now, Mr. Weeks, after you had seen Mr. Banks didn't you really intend not to come to Cortland and be a witness for the driven-well parties unless you was strictly compelled to do it by the service of a subpœna and the payment of your fees in advance?

A. I thought like this: If I could get rid of it I would.

Q. 44. Now, further, didn't you go to cutting corn that night, expecting they would send up a subpœna for you & pay you your fees, in order to avoid being a witness for these driven-well parties?

5288 A. I went to cutting to the corn, thinking to get it done before the next day, expecting they would send for me.

Q. 45. Had you no expectations that they would send for you that night, and haven't you so said? Please answer directly.

A. I think I did, but I don't remember; I think there was something said about it by me; I [illegible].

Proceedings adjourned to 9 o'clock a. m., Oct. 2, 1880, at same place.

At ten o'clock a. m., Oct. 2, 1880, parties all appeared as before.

Q. 46. Who first called upon you on the part of the defendant to be a witness for him in this case?

A. Mr. Callen, Dewitt C., of Preble.

Q. 47. Who next called on you in that behalf?

A. He brought me down here.

Q. 48. To see whom?

A. I think it was Mr. Palmer, the counsel here.

5289 Q. 49. Did you see him here in Cortland; and, if so, in company with anybody else; &, if so, who was it?

A. I did see Mr. Palmer here in Cortland; I have no recollection of seeing him in company with anybody else.

Q. 50. You came down with Mr. Callen with the view of being a witness for the defendant in the case, did you?

A. I did know which party; I suppose it was to be a witness.

Q. 51. Did Mr. Callen pay you any money or subpœna you before you came?

A. He paid me some money, but did not subpœna me with a written subpœna.

Q. 52. How much money?

A. Two dollars.

Q. 53. What did he say when he handed you the money & wanted you to come down here to Cortland to be a witness?

A. He said he was sent up there after me; that I would have to go with him.

Q. 54. Did he say who sent him for you?

A. Well, appears to me he did, but I don't remember the
5290 names; he mentioned a man's name.

Q. 55. What else did he say to you?

A. Well, I don't remember.

Q. 56. Didn't he say something about your being a witness against the driven-well parties? Please remember and state.

A. Well, sir, I don't remember as we had any more conversation coming down.

Q. 57. How did you come down with Mr. Callen? And state whether he came with you.

A. He came with me, & he drove his horse & wagon.

Q. 58. Have you ever said to anybody that you wouldn't be a witness for the driven-well parties if you could help it, or that in substance?

A. I don't think I ever have, sir.

Q. 59. Will you testify positively that you never have? Please ans. directly, yes or no.

A. Well, sir, I should rather say I hadn't.

Q. 60. Who else has seen you with respect to what you could testify in respect to your cleaning out of that well as far as you did besides Mr. Callen & Mr. Palmer, the counsel here?

5291 A. Mr. D. O. Crofoot & Moses T. Tallman, of Preble.

Q. 61. When & where did Mr. Moses T. Tallman see you & talk with you about that?

A. He came up to my house with Mr. Crofoot.

Q. 62. How far does Mr. Tallman live from you?

A. I should think it was two miles, or thereabouts.

Q. 63. Crofoot is a son-in-law of Tallman, is he?

A. Yes, sir.

Q. 64. When did Mr. Tallman & Crofoot pay you this visit?

A. It was a few days after cleaning out this well—some 3 or 4 days.

Q. 65. Did they make any other business with you than to talk with you about having cleaned out what you did of this well in question?

A. Yes, sir; they did.

Q. 66. What other business?

A. Crofoot wanted I should clean out his well.

Q. 67. Any other business did they make with you on that occasion?

A. Yes, sir.

Q. 68. What other?

A. I had some lumber at Crofoot's mill, & he said I must
5292 come & stick it up; it was spoiling.

Q. 69. Any other business?

A. Not that I know of.

Q. 70. Did Tallman make any other business with you than to talk with you about cleaning out *cleaning out* this well as far as you did?

A. No, sir; he didn't. He said he understood I had cleaned it out & I told him I had.

Q. 71. Have you cleaned out Crofoot's well since that visit?

A. I have, sir, and have stuck up the lumber.

Q. 72. When you was at the well on the Sunday mentioned who was with you, if anybody?

A. Mr. Callen & his daughter.

Q. 73. At whose request did you go there on that Sunday?

A. Mr. Callen's.

Q. 74. For what purpose?

A. To see how much more somebody else had dug out than I had.

Q. 75. From whom did you get the information that some one had dug out somewhat more?

A. From Mr. Callen.

Q. 76. Where did he give you that information & where
5293 were you when he requested you to come to the well on that
Sunday?

A. I was at home, & he drove up to the house and said he wanted me to go down on that Sunday.

Q. 77. Did you go down into the well on that day yourself?

A. I did, sir.

Q. 78. Was there a common ladder then in the well?

A. There was, sir.

Q. 79. Did you make any measurements yourself of how much farther down than you had cleaned the well somebody else had cleaned it?

A. I did not. I was in the well when Mr. Callen, from the top, ran the pole down to the bottom of the well. He, Callen, measured, while I was in the well, the depth of the water as it appeared from the pole. When I came out I asked him to put the pole down to the flat stone that I have spoken of and he measured that distance down from the surface. He said it was 12 feet & some inches down to this stone.

Q. 80. You did not yourself apply the rule to any of the measurements made there, but took Callen's word for it, did —, sir?

5294 A. I took Callen's word for it & did not myself apply the
rule in the measurements made.

Q. 81. On that occasion how far should you think, from the very bottom up, was the well stoned with wholly flat stone?

A. There are but very few flat stone; can't say how far up, for I did not measure the height up.

Q. 82. Above the flat stone the well is walled up with cobble-stone, is it not?

A. Principal part is cobble-stone above.

Q. 83. At the well, when you & Callen were there, was there any one else there but the girl on that Sunday?

A. I think Mr. Callen's boy and I think his wife was there, but I am not positive.

Q. 84. Now, Mr. Weeks, I asked you in a question just above how much you found on that Sunday the well to have been cleaned out lower down than it was when you finished your cleaning. I now repeat that question & ask you to answer it.

A. I did not find it a great deal.

Q. 85. State whether you took any measurements when you was in the well so as to state accurately how much farther down it had been cleaned from the point of the cleaning as you left it.

5295 A. I did not make any.

Q. 86. Did you, while in the well, measure down to see how far it was from the top of the water in the well to the bottom of the well?

A. I did not.

Q. 87. Do you know how far down it was on that Sunday from the top of the water in the well to the bottom of the wall of the well as they are?

A. I do not quite; I don't know exactly.

Q. 88. You say, on day before yesterday, on Thursday of this week, you went to the well again and examined it. By whose request, & who accompanied you?

A. Nobody *by* myself and Callen were there; nobody requested me to go.

Q. 89. How came you to go & how came you to get Callen to go with you?

A. I went down to see whether I had made any mistakes or not on that flat stone at the bottom of the wall; I asked Callen merely if he would go down with me; I went to see about the flat stone being at the bottom of the wall.

Q. 90. Why did you want Callen to go?

A. Nothing in particular; I only wanted company; that is all.

5296 Q. 91. What is there about that flat stone that you refer to that enables you to distinguish it from other flat stone at the bottom of the wall?

A. This flat stone I am speaking about is kind of a long stone, and it's a little kind of hog-back fashion. It projects over or toward the water some, but not a great deal—so I could notice it.

Q. 92. State now whether this stone is the same one that you called Seth Aldrich's attention to on the day when you & he, with

Mr. Van Hoesen, were there, when you cleaned out what you did from the well.

A. I think it is, sir.

Q. 93. Now, when you went there day before yesterday, as you say you did, how far above the *above the* bottom of the wall of the well did you find this stone to be?

A. Pretty near the bottom; this flat stone is about to the bottom of the wall.

Q. 94. Was it day before yesterday in water or above the water?

A. It was above the water.

Q. 95. How far above the water in the well?

5297 A. I was not but a little.

Q. 96. Please state, as near as you can, how far it was above the water.

A. I should think it was from ½ inch to 1 inch at the time I was there day before yesterday.

Q. 97. Now, Mr. Week, do you say there were not stones of the wall extending down below this stone you refer to?

A. I don't think there were many.

Q. 98. Do you testify as a witness here that there were none below that flat stone you refer to?

A. I think there ain't any under it.

Q. 99. Do you testify positively to that?

A. I do, sir.

Q. 100. Did not the walls of that well, as you saw it day before yesterday, go down as far as the water does?

A. It did not when I was down there day before yesterday.

Q. 101. Then all the water day before yesterday was entirely below the lowest stone in the walls of the well, do you mean?

A. No, sir; not all around.

Q. 102. Was any portion of the walls of the well down as

5298 low as the bottom of the water as it stood in the well?

A. I cannot tell.

Q. 103. How deep was the water in the well, did you judge, day before yesterday?

A. About five inches, I should judge.

Q. 104. Now, when you cleaned out what you cleaned out from this well, do you know that Mr. Aldrich was with you, went down into the well after you had finished your cleaning?

A. Now, I will tell you. I made a mistake; I thought he did go down into the well, but now I think he did not; I was dressing my feet.

Q. 105. Do you swear he didn't go down into the well at that time?

A. I declare I can't swear whether he did or didn't.

Q. 106. You all three—yourself, Mr. Van Hoesen, & Mr. Aldrich—went there together and remained there together & left there together on the occasion of your doing the cleaning out that you did, did you not?

A. Yes, sir.

Q. 107. Which went into the well first on that occasion?

A. I did.

5299 Q. 108. Do you say that Mr. Van Hoesen spoke to you about there being any strainer you would be likely to find at the bottom of that well?

A. He spoke to me about finding a strainer of that description in the well.

Q. 109. Where was he when he spoke to you about finding the strainer?

A. He was there by the well, above, and at about the time I got through.

Q. 110. Mr. Aldrich was then present when he spoke to you about

A. I think he was.

it?

Q. 111. Were you in the well when he spoke to you about it?

A. I think I was.

Q. 112. When he spoke of this sheet-iron tube that might he found in the well and desired you to examine to see if it was there, did Mr. Van Hoesan state what made him think that there was such a tube there, he referring to what Mr. Wm. E. Tallman had told him?

5300 A. I don't have any recollection of such a conversation; if he had such a conversation it must have been with Mr. Aldrich. I did not hear it.

Q. 113. Now, witness, I put to you this question: Did not Mr. Mathias Van Hoesen, when he got you to clean out this well for the complainants, say to you, either at the time he employed you or at the well, that Wm. E. Tallman had told him that he had put in the bottom of the well a sheet-iron tube or tubing, and for that reason desire- you, as you cleaned down, to see whether you could find it there or not?

A. I guess he did say so, and I think he did say to me to look for that tube or tubing as I cleaned down.

Q. 114. Do you or do you not mean to say that Mr. Van Hoesen did tell you that Mr. Tallman had told him that he had put
5301 in at the bottom of the well a sheet-iron tube or tubing, and that that was the reason that Mr. Van Hoesen desired you to examine, as you cleaned down, to see whether you could find it? Please answer yes or no.

A. I think, sir, that it is.

Q. 115. You say the well measured, down to the stone in the southeasterly side of the wall which you refer to, some inches over 12 feet, do you?

A. Yes, sir.

Q. 116. Measuring from the surface of the ground above, do you mean?

A. Yes, sir.

Q. 117. How many inches over twelve feet was the measurement?

A. Callen told me, but I have forgotten.

Q. 118. Are you willing to go to the well with Mr. Callen, Mr. Van Hoesen, & Mr. Aldrich and take the measurement of the well and

the depth of the water in it, also the highth of the flat-stone
5302 part of the wall at the bottom of the well, and return here on
Monday & then state the accurate measurements as you find
them?

A. Yes, sir; if they will go with me.

Q. 119. What is the length of the handle of your pick used in cleaning out this well?

A. I did not measure the handle.

Q. 120. Where is the pick?

A. It is at John Henry Gay's, in Preble.

Q. 121. Is the handle as much as 2 feet long or more?

A. I should think it was less.

Q. 122. What do you think its length to be?

A. I couldn't tell exactly; it is something less than two feet some.

Q. 123. Will you produce that pick at the well in the presence of these witnesses and measure the handle of it?

A. Yes, sir; if he will let me have it.

Q. 124. Is it not your pick; I thought you said it was?

A. I borrowed it; it is John Henry Gay's.

Q. 125. Did you state in the presence of Mr. Van Hoesan & Mr. Aldrich there in cleaning out the well, and when Mr. Van Hoesan asked you to examine for the sheet-iron tubing, that you couldn't
use the pick to do it on account of the length of the handle,
5303 and did you send it up to the top of the well & take a stick
or the end of a broom handle or something like it and use
that in punching down into the earth at the bottom of the well?

A. After I got through with the pick scratching around I couldn't find nothing; then I took my hands and run around under the wall; then says I, I will send this pick up; it is pretty long; then Mr. Van Hoesan handed me down a stick & I hunted with that.

Q. 126. How did you hunt with this stick?

A. Kind of punched around down into the earth.

Q. 127. Was this done after you had finished what you had done in cleaning out the well?

A. I think it was, sir.

Q. 128. Was this done before or after Mr. Aldrich went down into the well?

5304 Q. 129. Did you not point out or describe to Mr. Aldrich
& Mr. Van Hoesan a stone on the north or northerly side of
the well in its wall, a flat stone, which projected somewhat as the stone that you took to be at the bottom of the well; and didn't Mr. Aldrich, in your presence at the top of the well, looking down in it, go into the well and examine this flat stone with reference to its being one of the bottom stone- of the wall of the well?

A. I don't have any recollection of showing him any stone on the north side.

Q. 130. Do you say you didn't, positively?

A. I don't think it was on the north side.

Q. 131. How long was you there cleaning out of the well what you took out?

5305 A. We were there 2 or 3 hours or something near that.

Q. 132. When you finished taking out what you took out of the well do you mean to swear that there was any water standing above the earth left in the well at its bottom?

A. There was a very little.

Q. 133. Do you mean by that water standing above the earth as you left it?

A. It was mud & *and* water I had taken out.

Q. 134. I repeat the question. When you had finished taking out what you had taken out what do you say—was there any water standing vis*a*bly above the earth that remained in the well at the bottom?

A. I kind of think there was a little in the north part.

Q. 135. Are you sure there was?

A. I am pretty positive there was a little.

Q. 136. How much and to what extent on the north side of the bottom?

A. It was where I had dug with my hands; there was but a little in there.

Q. 137. How came you to be digging with your hands on the north side—for what purpose?

A. I was taking this dirt out of this well; that was the way I came across it.

Q. 138. Came across what do you mean?

5306 Q. Well, I was taking the dirt and mud out, and come to this water.

Q. 139. Now, Mr. Weeks, don't you know that there was no visible water in the dirt you sent up to Mr. Aldrich, who drew it up at the top of the well?

A. There was water in the mud, for I felt it with my hand. Mr. Van Hoesan said if I had got to the bottom of the well I might come up, and I did so.

Q. 140. Did not, then, Mr. Aldrich go down to see & examine whether you had got to the bottom of the wall?

A. I think he did, sir.

Q. 141. Did he not then examine a flat stone on the north or northerly side of the wall which you then described to him as being, as you thought, one of the bottom stones of the wall?

A. I have no recollection of showing him a stone on the north or northerly side of the well, but did, I think, one on the southeasterly side, which I called one of the bottom stones of the wall.

Q. 142. How far from this well do you live?

5307 A. I call it about two miles or more. It may be a little more or less.

Q. 143. How many times have you seen Mr. Moses T. Tallman since you cleaned out what you did of the well?

A. I saw him up to my house that I have told you about, and once at Mr. Carr's store in Preble.

Q. 144. Was the subject of your cleaning out this well and of your being a witness in this case there talked about between you & Mr. Tallman in the presence of other men?

A. Not as I can remember of.

Q. 145. How many times have you been down from your home to Cortland to be a witness in this case for the def't?

A. Twice before yesterday morning, that being the third time.

Q. 146. Had a subpœna been served upon you at either of the times?

A. Not to my recollection.

Q. 146½. At either of these three times you mention had your fees been paid to you before you come down or have they been paid after you got here, if at all?

5308 A. Not but once before I came down. The rest have been paid after I got here, and the time when I was paid before I came was when Mr. Callen paid me, and that was this week.

Q. 147. Didn't you state to Mr. Aldrich and Mr. Van Hoesan after coming out of the well, when you had cleaned out all you did, in substance, this: That you thought you had got to the bottom of the well, for the reason that you had punched down into the earth at the bottom with this stick which Mr. Van Hoesan had sent down to you so that you could see water at the bottom of the hole thus made; didn't you state that to them, in substance, on your coming out of the well on that occasion?

A. I think I did. There was water there, because I had my hands in it.

Q. 148. What kind of earth was it at the bottom of the well & how far down into it did you push this stick that Mr. Van Hoesan sent down to you so that you could see water at the bottom of the hole thus made?

5309 A. It was some mud mixed with sand. I should think I pushed the stick down 3 or 4 inches; in the neighborhood of that; I did not measure it.

Q. 149. It might have been further—6 or 7 inches—that you pushed down this stick, might it not?

A. I couldn't tell, for I didn't measure it.

Q. 150. What size of a stick was it you thus pushed down & how big was the end of the stick?

A. It was, maybe, an inch through, and it might have been more—an inch and a half, maybe. I did not sharpen it.

Q. 151. How far up in the hole that you made in the earth at the bottom of the well did the water come that you could see?

A. I can't tell exactly, for I did not measure it, but I could see it. I could see water in the hole I made.

Q. 152. Whereabouts was the hole that you made with this stick with reference to the center of the well?

A. I could not tell whether I put it in the center of the well or a little one side.

5310 Q. 153. Now, Mr. Weeks, when you made the hole how far down in the hole was it you had to look to see the water?

A. I could not tell you, for I did not measure it. It might have been an inch or two or more.

Q. 154. Now, might it have been as much as five or six inches down that the water you saw was in the hole?

A. I could not tell as to that.

Q. 155. Was the ground that you thus punched the stick down into hard or soft?

A. I- was a little softish—kind of mud and sand.

Q. 156. And did that kind of earth prevail at or in the bottom of the well as you left it generally over the bottom of the well?

A. I think I left it so.

Proceedings adjourned to Oct. 4, 1880, at 1 o'clock p. m., at the same place.

5311 At one o'clock p. m., Oct. 4, 1880, case called.
Parties appeared as before.

Cross-examination of Mr. WEEKS continued by Mr. GOODRICH:

Q. 157. You have re-examined, now, the well in question since you left the stand on Saturday last, as you then said you would do, have you?

A. Yes, sir.

Q. 158. When and in company with whom?

A. This morning between 6 & 7, with Mr. Callen, Mr. David O. Crofoot, Mr. Moses T. Tallman, and Mr. Wheeler.

Q. 159. Were Mr. Van Hoesen, Mr. Aldrich, or any of the witnesses that were named to you on Saturday last, that would be present to *affect* a joint examination by witnesses on both sides of this controversy, with you?

A. No, sir; there was no one; Mr. Callen was with me.

Q. 160. How long was you & Mr. Callen and the others at the well at the re-examination this morning?

A. We was there probably a half hour or more; I was there before they were & helped take out the water.

Q. 161. Who was with you helping to take out the water?

A. Mr. Callen.

5312 Q. 162. How long were you and Mr. Callan there before Mr. Tallman & Mr. Wheeler came?

A. Fifteen or twenty minutes.

Q. 163. How did you take it out—that is, the water?

A. With a pail & strap & with a dipper with which we——

Q. 164. How came Mr. Tallman to be there this morning so early?

A. I don't know as I could tell you.

Q. 165. How came Mr. Crofoot to be there so early?

A. I guess Mr. Callen sent for him.

Q. 166. How came Mr. Wheeler to be there so early this morning?

A. I don't know as I can tell you, unless the boy did it in the same way.

Q. 167. How early were you at Mr. Callen's house this morning?

A. I came down there last night and stayed overnight with him.

Q. 168. Was you the bearer of any letter from the defendant's counsel last Saturday afternoon to Mr. Callen?

A. I was, sir.

Q. 169. Was it a verbal message or a letter?

A. It was a letter, probably.

5313 Q. 170. What makes you think it was probably a letter?

A. He says, You stop a minute and I will send by you a letter to Mr. Callen—(I mean the counsel here said that).

Q. 171. And you took what you supposed to be a letter from the counsel to Mr. Callen, did you?

A. Yes, sir, and I gave it to one of his boys to hand to him; that was on Saturday evening.

Q. 172. Did the def't's counsel, on last Saturday afternoon, say anything to you about your seeing Mr. Callen on Saturday or Sunday evening? If so, state what he said.

A. Nothing material; only to stop & hand him this letter, as I can remember of.

Q. 173. How far do you live from Mr. Callen?

A. About 2 mile-, I should think; may be a little less, may be a little more.

Q. 174. Had you seen Mr. Callen after you gave the coun-
5314 sel's letter to Callen's boy before you went down to Callen's
house last night? If so, state when and where.

A. Yes, sir; I did, at my house last evening about dus*t*; he came up to my house.

Q. 175. What did he come up for, and what request did he make?

A. He wanted to know if it wouldn't be just as well for me to come down last night & stay all night, as it would be nearer.

Q. 176. Did he say anything to you about sending for Tallman, Crofoot, and Wheeler, to be present at the well with you early in the morning; if so, what?

A. He said they would be there early in the morning.

Q. 177. Did he state how he knew they would be there early in the morning?

A. I have no recollection now that he did state how he knew they would be there.

Q. 178. Didn't he speak, & the letter and the contents of the letter
which you had carried and sent him through his boy, as
5315 to why Mr. Tallman and these men should be there when
you re-examined the well?

A. I have no recollection of his saying anything to me about this letter just then, but the men came there.

Q. 179. You stated on your examination, just before adjournment on Saturday, that you were willing to re-examine the well in company with Mr. Callen & also with Mr. Van Hoesen & Mr. Aldrich & said you would do so if they attended, did you not?

A. I did, sir.

Q. 180. Now how came you to go to the well so early and go away so early, if you expected to fulfil the promise you made, without seeing Mr. Van Hoesan or Mr. Aldrich.

A. Well, Mr. Callen insisted upon my going to the well & dipping the water out and when I had it dipped out Mr. Tallman, Crofoot, & Wheeler were there; they said Aldrich & Van Hoesan would be along soon and we waited a spell; then they insisted on my

5316 going down in the well again, with Mr. Crofoot with me; then we went up & they reckoned Mr. Aldrich and them would be coming pretty soon & we went and got some breakfast; then we hitched up to come to Cortland; I then looked out toward the well & saw Mr. Van Hoesan and Mr. Aldrich going toward the well; I says, There ain't no use of my going there again, is there? and Mr. Callen says, No; there is no need of your going out there again, and he, Callen, went out there and stayed from 3 to 5 minutes and then he & I came to Cortland, driving down with his horse and wagon, getting here about 20 minutes before eleven this morning.

Q. 181. What time did you leave there with Callen this morning?

A. I can't say whether it was before eight o'clock, but I think it was a little later than eight.

Q. 182. You knew the Saturday that your examination was adjourned to one o'clock p. m. to-day, did not you?

5317 A. I believe I do, sir.

Q. 183. How long does it take you to drive from Preble down here?

A. Probably an hour or an hour & a half.

Q. 184. Now, what did Mr. Tallman say to you there at the well in the presence of the other persons about your waiting to re-examine the well in company with Van Hoesan and Aldrich? State now what Mr. Tallman said there and all he said there in your presence on that subject.

A. Well, all I remember *if* it is: He says, I think it's about time they came along.

Q. 185. Who do you mean by they?

A. Mr. Aldrich & Mr. Van Hoesan.

Q. 186. That was said by Mr. Tallman before you took breakfast, was it not?

A. Yes, sir.

Q. 187. Where did you take breakfast?

A. At Mr. Callen's.

Q. 188. That is about a mile nearer to Cortland than Preble village, isn't it?

5318 A. Yes, sir.

Q. 189. Now, did Mr. Tallman advise you not to wait or that you should not wait or anything to that effect? Please remember & state according to the truth.

A. No, sir; he did not.

Q. 190. Did Mr. Tallman take any part in your re-examining the well?

A. I didn't see that he did, sir.

Q. 191. Did he say or do anything whatever in respect to your re-examining the well?

A. I think he laid a stick or post down across the well to measure by.

Q. 192. That was a piece that laid there, was it?

A. It was; it was 4, 5, or 6 feet long & might have been more.

Q. 193. Did he put it over, for measurement, on the surface of the ground or on the upper surface of the wall, do you know?

5319 A. He laid it on the top of the ground so as to get it as near level as they could.

Q. 194. Did you measure the depth of the well yourself this morning?

A. I did not.

Q. 195. Did any one in your presence, so that you knew what the depth was?

A. Yes, sir; Mr. Crofoot and Mr. Callen.

Q. 196. How did they measure it?

A. They had a pole there and a square.

Q. 197. Did the pole go down the full depth of the well from the surface of the ground?

A. Yes, sir; down to the bottom of the well from the surface.

Q. 198. Where was you when this measurement was taken?

A. I was right there with them, but out of the well.

Q. 199. Who brought the pole used there?

A. Mr. Callen took the pole & square down with him.

Q. 200. What was the depth of the well thus ascertained, from the surface down to the bottom of the well?

A. One place it measured 14 feet and 2 inches, if I under-
5320 stood them right.

Q. 201. And in the other place?

A. From this stone in the wall I have mentioned here up to the stick that is in the bank it measured 13 feet and 6 inches.

Q. 202. Did you measure or see measured the diameter of the well, from wall to wall?

A. Yes, sir; I saw it measured by Mr. Crofoot.

Q. 203. What was the diameter at the bottom of the well?

A. Two feet and 5 inches, if I remember right.

Q. 204. What was the diameter at the top of the well?

A. Two feet 2 inches, I think.

Q. 205. How far above the water was it that you took the measurement at the bottom of the well?

A. I should think it was a foot and a half or two feet. I didn't pay particular attention to that.

Q. 206. At what other point in the well did you take any measurement?

A. It was about middle way of the well.

Q. 207. What was the measurement there?

5321 A. I think it was 2 feet 7 inches.

Q. 208. Did you measure the depth of the water in the well this morning before you bailed it out; if so, what was its depth?

A. We did; there was about 6 or 7 inches of water in the well; we run a pole down near the center of the well and then measured the appearance of water on the pole; we only measured it in this one way and only in one place at the bottom.

Q. 209. Did you find that the wall of the well was laid up with flat stone from the bottom up for some distance?

A. Yes, sir; I did this morning.

Q. 210. For what distance up from the bottom did the flat stone extend in the wall?

A. I should think it was 18 inches or two feet; we didn't measure it.

Pick shown witness.

Q. 211. Is this the pick you used in cleaning out what you did of the well under the direction of Mr. Van Hoesan about the last of July last?

5322 A. The blade or horns of it looks like — pick I used, but the handle I can't say whether it is the same one or not.

Q. 212. Counsel now asks witness to examine the handle of the pick, especially where it enters the eye of the pick, & then state whether the handle does not look old where it enters the eye and as though the handle had been there a long time.

A. I have no doubt but that it is the same handle that was in the pick when I used it in the well.

Q. 213. Describe the length of the handle and the length of the blade or horns of the pick, stating the length of each by actual measurement made here.

A. The horns, in the whole, are 20 inches long; from the outside of the eye on either side each blade is 8½ inches in length; the handle is 2 feet and one-half in length.

5323 Q. 214. I now present you a stick (which is measured in the witnesses' presence) which is two feet in length and an inch by an inch and a half in width & thickness, and ask you to state whether that is the stick that Mr. Van Hoesan sent down to you after you had sent up to him the pick from the well and with which you punched down, making the hole or holes you have spoken of in your testimony in the earth you left at the bottom of the well.

A. I am not positive; it may be the very stick.

Q. 215. Are both ends of the stick blunt as to its width & thickness, as here presented?

A. It is.

Q. 216. Did you take out any earth after the pick was first sent down to you into the well?

A. I should rather guess there was not.

Q. 217. How did you get up the earth that you did send up before the pick was sent down?

A. By my hands.

5324 Q. 218. Did you notice this morning a flat stone at the very bottom of the wall that had apparently been taken out about half way back of the thickness of the wall?

A. No, sir; I didn't happen to.

Q. 219. When you bailed out the water of the well this morning what appearance did the bottom of the well present as to being on a level with itself?

A. Well, it was pretty much one thing, only there was a cobble laid there when I dipped up the water and took up some dirt with it; otherwise it was pretty much level.

Q. 220. Now, Mr. Weeks, did the flat stone making two feet of the wall up from the bottom have the appearance to you of having been there as long as the well had been and as long as the other stone had been there?

A. I should think so from the appearance of things.

Cross-examination closed.

5325 Redirect examination by Mr. I. H. PALMER, counsel for def't:

Q. 1. Is not the bottom of this well slightly hollowing like a tea saucer?

A. It was—not quite.

Q. 2. When you left it on the occasion of cleaning it out did you leave the earth scraped away from the walls all around the well or not? State how this was.

A. I did; with my hands.

Q. 3. What is your best recollection as to whether this stick shown you by complainants' counsel is or is not the one with which you searched & probed in the bottom of this well?

A. I should rather think it was not; it don't look like the same stick, but it may be.

Q. 4. In what respect does this stick differ from the one you used on that occasion?

5326 A. I think that the one I used, if I am not mistaken, was a little longer, and I got it in my head that the one I had was — more nearly round stick.

Q. 5. (The ladder as heretofore identified by complainants' witnesses as having been taken from the well in question shown to the witness.) When did you first see that ladder?

A. Here at Cortland last week; one day at H. J. Messenger's office in this village.

Q. 6. Was this ladder in the well when you went there with Mr. Aldrich & Mr. Van Hoesan when you went there to clean it out?

A. I think it was not; I did not see anything of it around there anyway.

Q. 7. Did you find in your recent examinations of this well that the flat stone mentioned by you on the southeast side was or was not at the very bottom of the wall of the well?

A. I thought it was, sir; I think so now.

5327 Q. 8. Did you make more than one hole in the bottom of the well in searching for an iron curb and strainer, as you have testified?

A. Yes, sir.

Q. 9. How extensively did you thrust this stick into the bottom of this well on that occasion? I mean how many times & how much.

A. Well, quite a number of times; I tried around & punched it in as far as I could; then I took *I* hands around under the wall again.

Q. 10. State whether or not you thrust this stick into various parts of this well and in what places, with reference to the center.

A. I tried in the center as near as I thought it was & then all around; then I turned around & tried where I had stood.

Q. 11. How long have you resided in Preble?

A. I should think about 28, 30, or 31 years; may be a little less or a little more.

5328 Q. 12. How long have you known Mathias Van Hoesan?

A. It must be as much as 35 years, and may be more.

Q. 13. Do you know Thomas Ballard? And, if so, how long have you known him?

A. I do; I have known him 12 or 16 years.

Q. 14. Have Mr. Ballard & Mr. Van Hoesan been present during your examination here?

A. I have seen them around here; yes, sir.

Q. 15. Has Mr. Van Hoesan been engaged in prompting complainants' counsel while you have been on the witness stand here, & in consultation with them frequently?

A. I could not tell as for that fact.

Q. 16. Did not Mr. Van Hoesan whisper frequently to complainants' counsel, Mr. Goodrich, when he was cross-examining you last Saturday, and did not Mr. Van Hoesan address some enquiries to you in person while you were on the stand as a witness?

5329 A. Yes, sir; he did. At least I think he did.

Q. 17. Does Mr. Van Hoesan sometimes try cases in justice's court in your town?

A. I rather guess he does; he does.

Q. 18. Is he regarded as pretty sharp and successful in the trial of causes in the justice court by the people in Preble?

A. I heard such talk; yes, sir.

Redirect examination closed.

Recross-examination:

Q. 1. Mr. Van Hoesan is as honest and upright a man as you know of, is he not?

A. Yes, sir; for anything I know of.

Q. 2. (I show you the stick referred to in your testimony & produced here), and ask you to say whether you will swear positively that that is not the stick you used in the bottom of that well. 5330 & 5331

A. I couldn't swear to it positively.

Q. 3. Do you say that the flat stone that you found on the day you cleaned out this well you saw at the bottom of the wall when you examined it this morning, or was it some distance from the bottom of the wall?

A. I thought it was on the bottom of this wall.

Q. 4. Will you swear positively that it was not 18 inches or two feet above the bottom of the well as it appeared this morning? Please answer directly.

A. No, sir; I don't think it was.

(Signed) HIRAM his x mark WEEKS.

Subscribed and sworn to before me Oct. 4, 1880.
[L. S.] (S'g'd) DORR C. SMITH,
Notary Public.

5332 OCTOBER 9TH, 1880.

Parties appeared pursuant to adjournment.

DE WITT C. CALLEN, being duly sworn, deposes and says:

Q. 1. What is your name, age, occupation, and place of residence?

A. My name is De Witt Clinton Callen; my age is 45 last July; I am a farmer; I reside in Preble, Cortland Co., N. Y.

Q. 2. Where do you reside with reference to the Tallman well here in question?

5333 A. Southwest, about 60 to 70 rods.

Q. 3. Is your residence in plain view of this well?

A. Yes, sir.

Q. 4. Are you the same De Witt C. Callen who was sworn and examined in an action in this court pending in the district of Iowa, in which Wm. D. Andrews and others were complainants, some time last spring, before M. Stanley Bierce, a notary public, here Cortland village, N. Y.?

A. I was examined there in relation to this Tallman well.

Q. 5. On the occasion spoken of by you in that examination when you saw a pipe driven into the bottom of this dug well, did you see this sheet-iron curb, this copper strainer, or this grist-mill elevator cup (which plaintiffs' counsel here conceed-s to be the same articles which have been put in evidences in these cases before H. J. Messenger, a notary public, and marked by him as exhibits therein, and were taken from the bottom of this well in question on cleaning it out, as testified to by Thos. Ballard and J. B. Share on or 5334 about the last days of July, 1880), in this well or about it anywhere.

A. No, sir.

Q. 6. Did you ever see a grist-mill elevator cup used about this well in any way? If so, state when and for what purpose you saw it used.

A. No, sir; not that I remember of.

Q. 7. When did you first see these arti-les mentioned in quest. No. 5?

A. Yesterday, the 8th of October, 1880.

Q. 8. State whether or not you were frequently at this well after the pipe was driven into the bottom thereof, as you testified on your previous examination, and before the same was filled up.

A. I was there two or three or three or four times.

Q. 9. Did you see any of these articles at any of the times you were at the well, as you have stated?

5335 A. I saw a strainer similar to that, but I can't swear it was the identical one that was on the pipe that ran from the reservoir to the trough.

Q. 10. Whereabouts on that pipe?

A. It was on the northeast end.

Q. 11. Where with reference to the reservoir?

A. It was on the end of the pipe that reached into the reservoir on the southwest side.

Q. 12. Were you at this well on the 29th day of July last; if so, did you make any measurements of the well on that occasion, and at whose request did you make such measurements?

A. I was; I made some measurements at the request of I. H. Palmer or John W. Suggett; one or the other of them.

Q. 13. What time in the day did you make these measurements
and who were present?

5336 A. Near six o'clock in the afternoon, between six and seven,
in the presence of I. H. Palmer & John W. Suggett.

Q. 14. Please state the result of the measurements you made on that occasion, locating and describing the points that you measured, as well as you are able.

A. Twelve feet and eight inches from the bottom up to what I thought was a stringer to the platform on the east or southeast side of the well. I made no other measurements on that occasion.

Q. 15. What was the appearance of the bottom of this well with respect to the water, and so forth?

A. It looked kind of wet and gravelly—a gravelly soil. There was no water to amount to anything. That is all there was about the bottom of the well.

Q. 16. Was there any appearance of water in the bottom of the well at that time?

A. It looked as though, if it were dug deeper, there would be some water there. I went down into the well on that occasion.

Q. 17. Did you examine to ascertain whether or not the well had
been cleaned out down to the bottom of the stoneing?
5337 If so, state what you discovered in that respect.

A. I didn't examine closely.

Q. 18. When next were you at this well to make any measurements of its dimensions? Please give the results of your measurements, if you made any.

A. I think it was August, 1880—the 27th; I made measurements then; depth of well, 13 feet and 6 inches from bottom to the stick, sworn to before; depth of water, 7 inches; that is all the measurements I made at that time.

Q. 19. When next were you at this well to make measurements, and what were the results of your measurements?

A. I was there the next time near the 12th of Sept., 1880, and made measurements; measu-ed depth of water in the well; found it to be 8 inches deed; that is all at that time.

Q. 20. When next did you make any measurements of this well, and what was the result?

A. Sept. 19, 1880; I measured the depth of water in the well;
found it to be 6 inches deep.

5338 Q. 21. When next did you measure this well and what
were the results and who was with you, if anybody?

A. Oct. 4, 1880; twelve feet four inches and a half from the bottom of the well up to a board or plank on the south side of the well that Crofoot measured to; from the bottom of the well to the stick measured to before on the east side, 13 feet and 6 inches; size or diameter of the bottom, 2 feet 5 inches; diameter at the middle, 2 feet and 7 inches; diameter at top of well, 2 feet & 3 inches; depth of well from surface of the ground to the bottom of this well 14 feet and 2 inches; depth of water, 6 inches, in the well; Mr. Moses Tallman, David O. Crofoot, Jerome F. Wheeler, and Hiram Weeks were with me on this occasion.

Q. 22. Were you at the bottom of the well on this occasion?

A. I was.

Q. 23. Did Mr. Weeks point out to you a stone in the wall
5339 of this well, at the bottom, which he claimed to recognize as
one he had uncovered at the time he cleaned out this well? If so, please describe this stone and its location in the wall of the well, with reference to the bottom of the well.

A. He did while he was in the well on this occasion. I cannot describe this stone as fully, being on top of the ground, as though I had been in the well with them he showed the stone to. I should think it was the bottom stone or the next stone to it, as plain as I could see it; I should call it the bottom stone.

Q. 24. Have you worked a cro-bar down into the bottom of this well or seen it done by any one? If so, state what you did or saw in this respect, and give the date of the same as near as you are able.

A. I have seen a cro-bar worked down into the bottom of this well. I saw Mr. Wheeler work a cro-bar down into the bottom of this well; this was, I think, on Wednesday or Thursday of this week.

5340 Q. 25. To what depth was the cro-*f*ar worked down?

A. One foot.

Q. 26. Did you ever see a cro-*f*ar forced down into the bottom of this well on any previous occasion; and, if so, by whom and to what depth?

A. I have, by I. H. Palmer, the cou-sel here for defendant, near 18 to 20 inches.

Q. 27. Please describe the bar used on these two occasions.

A. On the first time—the time I saw Palmer—it was a bar about 3 feet and 6 to 8 inches long; a very light bar. On the second time Mr. Wheeler used Mr. Crofoot's bar, which is about four feet and four inches long; it was a very blunt bar and a crooked bar; to work it down a foot took him from a minute to a minute and a half.

Q. 28. Did you see the water removed from this well on any occasion, and did you take some of the earth from the bottom of this well?

5341 A. Yes, sir.

Q. 29. State how you took this earth from the bottom of the well and state what you did with the same.

A. I did see the water removed from this well on one occasion. We tried to remove it with a pump, but we couldn't make it work, and we bailed it out with a pail and strap. Then I passed the pail down and Mr. Wheeler filled the pail with the earth and gravel & I drew it in the pail to the top of the well. I carried the pail of earth home and had it there ever since, till I brought it here this morning and filled a glass can with some of that earth, and which can and earth I now present to the notary.

Defendant's counsel here offers in evidence the glass can containing earth taken from the bottom of the Tallman well here in question produced by witness.

5342 The said can containing said earth is here received in evidence and marked "Defendant's Exhibit Number One, Cortland, October 9, 1880, Dorr C. Smith, notary public."

Recess taken until 1 p. m., Oct. 9, 1880.

Case called at 1 p. m., Oct. 9, 1880.
Parties appeared as before.

Q. 30. How much deeper was the well in question when you measured its depth on the 27th day of August, 1880, than it was when you measured it on the 29th day of July last, as you have stated you did?

A. From 8 to 10 inches deeper, not to exceed over ten inches. . I have measured it, *was* it was 8 inches, 9 inches, and nine and a half and near ten.

Q. 31. Did you ever hear Wm. E. Tallman, in his lifetime, say anything about the well made by driving this perforated pipe into the bottom of this dug well? If so, state what it was and when it was, as near as you are able.

5343 A. I have heard him say something about it. He said he was going to put that pipe down to see if he could not get water for his stock; he said this in 1859.

Q. 32. When did he say this, with reference to the time when the pipe was driven?

A. When he came to get the maul to drive it with.

Direct examination closed.

5344 Cross-examination by complainants' counsel, D. L. Hulburt, Esq.:

Q. 33. In giving measurements of this well, on your direct examination, you referred to memoranda; will you allow me to see them at this time?

A. Witness says yes, and does so.

Q. 34. Have you any other memoranda in your pocket beside these in regard to this well?

A. No; not anything I have sworn to on my direct.

Q. 35. Have you any other memoranda in regard to this well?

A. I have.

Q. 36. Have you just taken them out and looked at them in the presence of the notary?

A. Yes, sir.

Q. 37. Will you allow me to see them?

A. No, sir; on the grounds that I have not shown them to either party, and they are blurred so I cannot make them out to swear to them.

Q. 38. Do you refuse to let me see them?

A. I don't know that it makes any particular difference. Witness hands them to Mr. Hulburt.

Q. 39. Have you taken other memoranda of this well?

5345 A. I did not take any other measurement down than these.

Q. 40. Have you other memoranda of this well?

A. I wouldn't say I had for certain; I did have others at home.

Q. 41. These that you have produced are not all in your handwriting, are they?

A. No, sir; I see them wrote.

Q. 42. Why didn't you bring the others that you say you have at home with you?

A. Because I have not carried it in my pocket.

Q. 43. Have you carried these produced in your pocket?

A. The most of the time; I think all the time.

Q. 44. What did you carry them in your pocket for and not the others?

A. Because I had my vest or coat on the most of the time when these were taken; the other was taken in the middle of the day, when I had been to work in the oat lot; when I had been requested to take it, and took it in and threw it on the table; sat down & eat my dinner & then went out to work, and did not put it in my pocket.

5346 Q. 45. Who requested you to take it?

A. Mr. Parsons.

Q. 46. Was that the time they drove the pipe down in this well, along in July?

A. Yes, sir.

Q. 47. Did you measure how far it was from the surface down to the water in the pipe?

A. I measured it at the time.

Q. 48. Mr. Parsons come & see you & request you to go and see it measured with him?

A. To that effect he did. He wanted me to go and measure it.

Q. 49. Did he state to you that his object was to find how near the water came to the surface of the earth where this well was, or to that effect, or that in substance?

A. No, sir.

Q. 50. The measurement that you took was to that effect, wasn't it?

A. I couldn't say, for we didn't have but a few words.

Q. 51. You have been to this well a number of times since it was reopened this summer?

A. I have.

Q 52. You have seen other persons & had them go to this

5347 well, haven't you, at the request of the defendant's counsel?

A. I have.

Q. 53. Did you get a letter from def't's counsel Oct. 2, 1880, in regard to examining this well?

A. Yes, sir.

Q. 54. Have you got that letter with you?

A. No, sir.

Q. 55. Where is it?

A. I don't know.

Q. 56. What did you do with it?

A. I couldn't say whether Mr. Palmer took the letter & carried it off or whether I lost it. I had- it the next day.

Q. 57. Was Mr. Palmer at your house on Oct. 3d, the next day after you rec'd the letter?

A. He drove by there just as I was hitching up my horse to drive.

Q. 58. Did he stop at your house and talk with you?

A. He did.

Q. 59. What was his business with you?

A. He made no errand, as I know of.

Q. 60. You didn't have any conversation about the well, did you?

A. We did, a little.

5348 Q. 61. What?

A. He asked me if I knew anything about the stone in the wall on the northeast side & I told him I didn't.

Q. 62. Anything else?

A. Nothing concerning the well as I know of.

Q. 63. Was that all that was said between you & him with reference to the well or with reference to anything being done with the well?

A. I think it was.

Q. 64. Will you swear positively that that was all that was said between you & him in that particular?

A. As far as I remember now, it is.

Q. 65. Did he say anything to you about going to measure the well on the next day?

A. I wouldn't say as he did, for I was in a hurry to get away, and talked but a short time with him.

Q. 66. Where did you go?

A. I was getting ready to go to a funeral.

Q. 67. Did you see Mr. Weeks that day?

5349 A. I saw him about 6 o'clock that night at his own house. I went there on business of my own and wife.

Q. 68. What business of your own?

A. My wife wanted to be carried there to see his wife a few minutes.

Q. 69. What did your wife want to see his wife for?

A. I don't know, & if you want to know you must go and ask her, for I didn't.

Q. 70. How long were you there?

A. About 15 or 20 minutes.

Q. 71. When did you see Mr. Weeks next?

A. On Monday morning.

Q. 72. What time in the morning did you see him there?

A. Not far from six o'clock.

Q. 73. Where did you see him?

A. At my house.

Q. 74. Did he come from home to your house & get there at 6 o'clock in the morning?

A. No, sir.

Q. 75. How was it then?

A. He staid with me all night.

5350 Q. 76. Did he come down with you the night before?

A. He did.

Q. 77. How came he to?

A. He said they had requested him to measure this well from the stone down to the bottom of the well and he wanted to get as early a start as he could.

Q. 78. You did not request him to come down to your house in order to do it, did you?

A. I said he could come to our house and stay all night.

Q. 79. Did you request him to?

A. I don't think I did; I don't remember of it.

Q. 80. Did you know up to that time that there were to be any measurements taken there?

A. I did.

Q. 81. What time did you go over to the well Monday morning?

5351 A. Not far from half-past six that we started to go to the well.

Q. 82. Had you been to breakfast before you went?

A. No, sir.

Q. 83. What made you go so early?

A. I did not call that early.

Q. 84. What time do you get up usually?

A. From half-past five or six o'clock.

Q. 85. Had you seen other parties on the Sunday afternoon previous in regard to going to this well on Monday?

A. No, sir.

Q. 86. Did you go over to Mr. Crofoot's on Sunday afternoon to see him about going to this well?

A. No, sir.

Q. 87. Was Mr. Crofoot at the well on that Monday, Oct. 4 last.

A. Yes, sir.

Q. 88. How did he come?

A. I saw him coming across the lots on foot.

Q. 89. Do you know by what conveyance he came?

A. No; that I could swear to; I heard that he rode in my wagon; he said he rode over in it.

Q. 90. Had you seen any one in regard to being at that
5352 well on Oct. 4 beside Mr. Weeks previous to the time that
you arrived at the well?

A. Yes, sir; Moses Tallman, David O. Crofoot, and Jerome F. Wheeler, on Sunday morning before.

Q. 91. When you were at the well with Mr. Parsons, July last, from the top of the gas pipe that was driven into this well before it was opened it was 13 feet and 5 inches down to the water in the pipe, was it not; and didn't you so record it in Mr. Parson's book at the time?

A. I don't say how much the distance was. I didn't record it in his book.

Q. 92. I show you his book and figures on the inside of the cover thereof, 13–5, and ask you if you didn't make those figures there at the well.

A. I did not.

Q. 93. Where did you get the paper that you made the figures upon at that time?

A. I made no figures at that time.

Q. 94. Do you swear, sir, that you didn't make any figures at the well at that time?

A. I do, sir.

5353 Q. 95. Haven't you just stated in the presence of the notary that "you need not try to look me out of countenance, and if you will furnish me money enough I will get you a better witness than you have yet got in this suit?" Please answer directly, yes or no.

A. I have; talking to Mr. Parsons, who is across the room from me looking me in the eye as sharp as can be.

Q. 96. Didn't you make the figures in Mr. Parson's book referred to in question number 92 of your evidence (in the presence of J. M. and W. T. Blanchard, who were there at the well with Mr. Parsons & yourself) at that time?

A. No, sir; not that I know anything of.

Q. 97. Where did you get the paper on which you took down the measurement that day?

A. I didn't take any measurement down.

Q. 98. Who did take it down that you know of?

A. I think Mr. Parsons took the measurement down.

Q. 99. You say that you had some measurements on a paper at that time; did Mr. Parsons put those measurements down, being the ones you took home & put on the table?

5354 A. There were figures on the paper he handed me, & I think he took them down. I did not see him.

Q. 100. Do you swear positively that you did not make those figures on the paper you took home with you in presence of the Mr. Blanchards and Mr. Parsons?

A. I do, and think I can prove it if I can find the figures.

Q. 101. You search for that paper and produce it here as soon as you can, if you will. Will you?

A. Not without I am paid for it.

Q. 102. These memoranda that you have produced here are not all in your handwriting, are they?

A. No, sir; two of them are in my handwriting & three are not.

Q. 103. Did you understand on the Monday morning of Oct. 4

that you measured this well that Mr. Van Hoesan & Mr. Aldrich were to be there under an arrangement to measure the well with you?

A. No, sir.

Q. 104. Was anything said at the well about Mr. Aldrich or Mr. Van Hoesen's being there that you remember of?

A. Yes, sir.

5355 Q. 105. Who by?

A. Myself.

Q. 106. Was that while Mr. Tallman & Mr. Crofoot were there?

A. Yes, sir.

Q. 107. How did you know they were to be there?

A. Mr. Van Hoesen told me that he was coming down there.

Q. 108. Did you know from any other source?

A. I wouldn't say whether Mr. Weeks said he was coming or not.

Q. 109. When & where did you see Mr. Van Hoesen when he told you that he was "coming to the well?"

A. I saw him, I should think, about half-past 8 o'clock Sunday night, Oct. 3d, opposite the Presbyterian ground.

Q. 110. (Witness shown the pick referred to in the testimony of Hir*i*m Weeks, and he is asked:) When did you first see it?

A. I don't know as I ever see it before. I couldn't swear to it.

Q. 111. Did you ask Mr. Van Hoesen anything about a pick?

A. I did.

Q. 112. Whose?

A. One that they called John Henry Gay's.

5356 Q. 113. How came you to ask Mr. Van Hoesen about it?

A. Mr. Weeks said that he was requested to get the pick that he used in cleaning out the well; he stepped to the house of Mr. Gay; Mr. Gay was down to the church; I told Mr. Weeks I would go in and see him; I went into the lobby of the church & waited until Mr. Gay came out; told him that Mr. Weeks wanted the pick that he used in cleaning out the well; Gay said that Mr. Van Hoesen had the pick; I asked Mr. Van Hoesen if he would let me take the pick until morning; I would see it was returned to him; Van Hoesen said, I guess not, for I want to use it in the well in the morning.

Q. 114. What did you want to do with that pick that night?

A. Well, I understood Mr. Weeks wanted the measurements of the horns of the pick and the handle; that's all.

Q. 115. You have had a number of lawsuits and have been a witness in a great many cases, have you not?

5357 A. I have had two or three lawsuits—three or four—and, perhaps, have been sworn as many times.

Q. 116. Sworn in other cases?

A. I might have been.

Q. 117. You left the well on Monday morning, on Oct. 4, before Mr. Van Hoesan arrived there, did you not?

A. I did.

Q. 118. When you got home from the well did you notice several persons at the well?

A. I did; from 3 to 5.

Q. 119. That was after you had had your breakfast, wasn't it, that you so observed them?

A. Yes, sir.

Q. 120. Did you go back to the well where they were?

A. I did.

Q. 121. Why didn't Weeks go with you?

A. I did not ask him.

Q. 122. Didn't you tell Mr. Weeks at that time he need not go to the well; you would go alone, or that in substance?

A. Not that I remember of.

5358 Q. 123. Will you swear that you didn't?

A. Not that I rem-ber of, I didn't.

Q. 124. Then you will not swear positively to it?

A. I didn't, to the best of my knowledge.

Q. 125. How long were you at the well when Van Hoesen & others were there?

A. It might have been 10 minutes or it might have been 20 minutes.

Q. 126. Didn't they ask you to stay and see the measurements taken?

A. No, sir; they didn't.

Q. 127. Didn't Mr. Van Hoesan, just as you were going away and in the presence of Mr. Parsons, Seth Aldrich, Jno. Havalin, & Jessie M. Blanchard, ask you to stay and see the measurements taken, or that in substance?

A. He did ask me to stay, but nothing was said about measurements in my presence by him.

Q. 128. Did you state to any one there that you had been there before that morning and taken measurements?

A. I stated that there had been men there and took measurements there that morning.

Q. 129. To whom did you so state?

A. I wouldn't say.

5359 Q. 130. When was the reservoir made that you have spoken of at this well?

A. Some time in the spring of 1860; about the last of April or 1st of May.

Q. 131. There was a trough used at this well in the year 1859, was there not?

A. Yes, sir.

Q. 132. You did not see any strainer until the reservoir was built in 1860 at this well, did you?

A. Not that I remember of.

Cross-examination closed.

(S'g'd) D. C. CALLEN.

Subscribed and sworn to before me Oct. 9th, 1880.

[L. S.] (S'g'd) DORR C. SMITH,
Notary Public.

Examination adjourned until Monday, October 11th, at 10.30 a. m., at same place.

[SEAL.] (Signed) DORR C. SMITH,
Notary Public.

5360 OCT. 11, 1880—at 10.30 a. m.

Parties appeared pursuant to adjournment.

Present: J. H. Palmer, as counsel for defendant, and D. L. Hurlburt, as counsel for complainants, who appears specially and here raises the objections before stated and will examine *de bene esse.*

Defendant here calls WM. W. WINTER as a witness, who, being duly sworn, testifies as follows:

Q. 1. What is your name, age, occupation, and place of residence?

A. My name is Wm. W. Winter; I am 48 years of age; I am a harness maker and carriage trimmer; I reside in Cortland village, Cortland Co., N. Y.

Q. 2. Have you at any time been engaged in the construction of driven wells in the village of Cortland? If so, state when.

5361 A. I have, more or less, from 1865 up to the present time.

Q. 3. Did you construct a driven well on the premises owned and occupied by the 1st National Bank in the village of Cortland? If so, when and state who was present.

A. I assisted in making a well there in the spring of 1865; I think it was in the month of May or June; I did not tax my mind with the particulars; I can't remember all that were present; I know there were a number of persons present: Col. N. W. Green was present; Thomas Elsworth, Senior, was present, and I don't recollect any one else particularly.

5362 Q. 4. Please describe the pipe and tools used in the construction of this well and the methods employed in the construction thereof.

A. The pipe was a perforated pipe with a conical point; the perforation- were at the end where the conical point was and extended 18 or 20 inches from the point; we used a solid bar, a cro-bar, a sledge-hammer, and two pairs of gas tongs; we drove the solid bar into the ground, then withdrew it, and put this pipe in its place in the ground.

5363 Q. 5. Was this pipe driven after it was inserted into the hole from which the solid bar was removed? Please describe what farther you did in the construction of this well, if anything.

A. After the solid bar was removed we drove the pipe until we reached water and obtained three or four feet of water inside the pipe; then we put a pump on the top of the pipe by coupling; a coupling was screwed onto the valve seat of the pump and then onto the top of the pipe; then we pumped the water, gravel, and sand until it was sufficiently clear for the masons to use.

5364 Q. 6. Did this method of attaching the pump to the pipe form an air-tight connection between the two?

A. It did, or otherwise we could not have drawn water.

Q. 7. Did this well furnish a good supply of water, and for what purpose and for how long was it used, to your knowledge?

A. It furnished a good supply of water. It was first used in building the building, and after that I don't know what it was used for. I cannot tell how long it has been used.

Q. 8. Was the earth surrounding the pipe in contact with it on all sides of it and tightly packed around it?

A. It was.

Q. 9. About how far did you drive the pipe?

A. After pushing the pipe down as far as the bar went we drove the pipe five or six feet, as near as I can recollect.

Q. 10. Did Col. Nelson W. Green say anything on that occasion about this well? If so, state what it was, as near as you are able.

A. I couldn't say that he talked about the well directly.

5365 Q. 11. How deep was this well from the surface of the ground?

A. My recollection is that it was 18 or 20 feet.

Q. 12. For what purpose were the perforations made in this pipe?

A. To let the water in at the bottom.

Direct examination closed.

Proceedings adjourned until 1.30 p. m.

At 1.30 p. m., Oct. 11, 1880, parties appeared as before, and the cross-examination of the witness made by D. L. HULBURT, as counsel for the complainants, as follows:

Q. 13. In 1866 and some years thereafter you have been engaged in putting down wells, have you not?

A. Yes, sir; I have.

Q. 14. Were you putting them down under the new process known as the driven well?

5366 A. Yes, sir.

Q. 15. And did you first commence under employment of James Suggett, of this place?

A. Yes, sir.

Q. 16. And you were interested with him for some time thereafter in putting down wells, were you not?

A. No, sir; no great length of time.

Q. 17. You have obtained patents, have you not?

A. I have; several.

Q. 18. How many, in relation to the driven well?

A. I have one on the well point and one on a driving apparatus for driving these wells, with Stephen Brewer.

Q. 19. How long were you putting down this well at the bank referred to?

A. But a few hours—two or three, &, perhaps, four—not to exceed four.

Q. 20. Are you able to state how long Col. Green was there at that time?

A. No, sir; I am not.

Q. 21. The place where this well was put down was for a bank building, was it not?

5367 A. I so understood it.

Q. 22. Near one of the sidewalks of the street here in Cortland, was it not?

A. Yes, sir.

Q. 23. And while you were at work people were passing upon the sidewalks, were they not?

A. Yes, sir.

Q. 24. You were then first learning the business of putting down wells, were you not?

A. Yes, sir.

Q. 25. And for that reason your time and attention were given to the putting down of that well, was it not?

A. Yes; more or less.

Q. 26. There were quite a number of people passing on the sidewalk that would stop & talk with other people there, would they not?

A. There was more or less talk about the well there. I cannot tell what was being said on the sidewalk.

Q. 27. Other than yourself and the persons who assisted you in putting down the well and Col. Green, please state who you are now willing to swear positively to were there during the time of 5368 putting down that well.

A. I cannot swear positively to any particular person being there.

Q. 28. You have resided in Cortland village, N. Y., since 1866, haven't you?

A. Yes, sir.

Q. 29. Do you remember a litigation between Suggett, Mudge, and Col. Green in an interference case over this driven-well patent, in which evidence was taken in Cortland in 1876, 1877, or 1878?

A. I think I do.

Q. 30. Do you remember, in 1872 or 1873, that evidence was taken here in Cortland involving the driven-well patent, wherein Wm. D. Andrews *et al.* were complainants and Theodore Carman was defendant?

A. I do.

Q. 31. Have you ever been sworn as a witness in any driven-well controversy where the subject of the driven-well patent was up before the present year?

A. I have not, except as a witness in my own patent case; 5369 I have never been a witness in any driven-well case before this year in which the patent of Col. Green, Suggett, or Mudge came in question.

Q. 32. Can you state about how many persons came along on the sidewalk and stopped while you were putting down this well?

A. No, sir.

Q. 33. Can you give any idea of the number?

A. There was quite a number going & coming and stopping.

Cross-examination closed.

Redirect examination:

Q. 34. Was this well the subject of comment and observation by the persons who stopped and witnessed the operation of making the same?

A. It was.

Q. 35. Was Col. Green present when water was pumped from this well after the pipe had been driven and the pump attached?

A. I wouldn't be positive that he was.

Q. 36. What is your best recollection as to that?

5370 A. I would not want to say that he was or was not.

Recross-examination:

Q. 37. You don't pretend to say at just what stage of the work it was when Col. Green came along there or when he left, do you?

A. No.

Q. 38. Didn't the people who were there converse on subjects aside from the well—about the new bank that was to ornament your town, and how it was to be constructed?

A. I couldn't say what they were talking about.

(S'g'd) WM. W. WINTER.

Subscribed and sworn to before me Oct. 11, 1880.

[SEAL.] (S'g'd) DORR C. SMITH,
Notary Public in and for the County of Cortland.

Proceedings adjourned until 7 o'clock p. m., Oct. 11, 1880.

(Signed) DORR C. SMITH,
Notary Public.

5371 At 7 p. m., October 11, 1880, parties appeared as before, and defendant produces E. DE PUY MALLERY as a witness.

Q. 1. What is your name, age, occupation, and place of residence?

A. My name is E. De Puy Mallery; I am 43 years old; I am a plumber, gas fitter, and tinner; I reside in Cortland village, N. Y.

Q. 2. Do you recollect a well constructed by James Suggett in front of the engine-house in this village?

5372 A. I do.

Q. 3. When was that?

5373 A. I think in the summer of 1863.

Q. 4. Where did Nelson W. Green then live?

A. In Cortland village, N. Y.

Q. 5. Please describe the construction of this well.

A. Well, I don't remember the size of the pipe that was used, but it was made by inserting pipe in the ground until they reached a certain depth of water; it was driven, and by experimenting the success of driving the well was reached by using a weight; they called it a pile-driver.

Q. 6. Was water obtained from this well after it was constructed; and, if so, by what means?

A. There was; by attaching the hand fire engine to the pipe.

5374 Q. 7. Did you see the hand fire engine used in this manner you have stated?

A. I did, & helped use it.

Q. 8. What do you say as to the publicity given to this well at the time of its construction? State generally.

A. It was thought to be a successfull well for the purpose for which it was intended.

Q. 9. Where was this well located with reference to the business center of the village?

A. Very near the business center of Main street.

Q. 10. Where with reference to the sidewalk and the center of Main street?

A. On the west side of Main street, and near the middle of the sidewalk as it now is; the sidewalk has been changed since the well was made. I should think it was east of the center of the sidewalk as it now is.

Q. 11. State whether or not this well was observed and commented on extensively by the inhabitants of the village of Cortland
5375 at the time this well was made.

A. It was.

Q. 12. About what was the population of the village of Cortland at that time?

A. About twenty-five hundred.

Q. 13. For what purpose was this well constructed?

A. For fire purposes.

Q. 14. Was the usually travelled route from the residence of Col. Nelson W. Green at that time to the post office, to church, and the business part of the village by this well?

A. It was.

Q. 15. Witness is here shown a section of lead pipe and the copper strainer refferred to in the testimony of Thomas Ballard, taken before Hiram J. Messenenge, a notary of this village of Cortland, and is requested to state whether or not the section of lead
5376 pipe can be inserted into the neck of the copper strainer, and to state how the same fits therein.

A. The witness here makes the test, and says: I find the piece of lead pipe shown me fits the *the* neck of the strainer very loos*l*ely.

Q. 16. When the pipe is pushed down into the neck of the strainer, the whole length of the neck, how does it then fit?

A. It fits very tight.

Q. 17. Is there a nail hole in the neck of the strainer near the funnel-shaped part thereof?

A. There is, leaving a burr of the copper on the inside; also an indenture or jam within a quarter of an inch of the strainer proper.

Q. 18. Does this nail hole extend through to the opposite side of the neck of this strainer?

A. It does.

Q. 19. Is the burr produced by this puncture of the neck of the strainer on the inside of the neck on one side and on the outside of the other, as if a nail had been driven clear through the
5377 same?

A. It is.

Q. 20. What explanation do you make of that fact, or what does it indicate?

A. It indicates that it had been attached to some pipe leading from a spring for the purpose of holding the strainer to the pipe. In making this explanation I do so from the fact that I have fastened a strainer to a pipe in the same way.

Q. 21. To what kind of a pipe have you thus fastened a strainer in this way?

A. A lead pipe.

Q. 22. Is that the usual method by which strainers are fastened to a lead pipe when a strainer is used in a spring?

A. It is not usual, although in some cases I have done it myself.

Q. 23. Have you seen strainers similar to this one; if so, for what purpose were they used?

5378 A. I have, and have made them. They are always used whenever pipe is carried or run from a spring to conduct the water from the same for the purpose of keeping out filth and sediment from the pipe and keeping it from clogging.

Q. 24. Is lead pipe made of a variety of weight and thickness as well as of different diameters; if so, how is the weight and thickness designated in the market by the trade?

A. It does vary, and is designated by letters.

Q. 25. What is the interior diameter of the neck of this strainer?

A. One inch five-eighths and a sixteenth, or one inch and eleven sixteenths.

Q. 26. What is the interior diameter of the piece of lead pipe shown you?

A. One inch and three-sixteenths.

Q. 27. What is the exterior diameter of the piece of lead pipe shown you?

A. Inch and one-half.

Q. 28. By what letter is that piece of lead pipe designated by the trade?

A. Letter "B."

5379 Proceedings are hereby adjourned until 9 o'clock a. m., Oct. 12, 1880, at nine o'clock a. m.

(Signed) DORR C. SMITH,
Notary Public.

TUESDAY, *Oct.* 12, 1880, at 9 o'clock a. m.

Parties appeared, S. S. Knox appearing as counsel for the complainants, making the same objections heretofore made in this examination by complainants' counsel, and the defendant appears, as before, by I. H. Palmer, as counsel.

The direct examination of E. DE PUY MALLERY continued as follows, to wit:

Q. 29. Is there also evidence that a nail has been driven through the neck of this copper strainer near the outer orifice of the same, producing a burr on the inside upon one side and upon the outside, upon the opposite side, in two places?

A. There is.

5380 Q. 30. About how many strainers similar to this have you made to be used in springs?

A. Between one and two hundred.

Q. 31. Please describe in your own way why nails are sometimes driven through the neck of such strainers and the pipe inserted therein when the same are used in springs.

A. It is to keep the strainer from slipping off from the pipe or from pushing on too far, to prevent the end of the strainer closing up the hole in the pipe.

Q. 32. Is this ever necessary when the neck of the strainer is made to fit exactly the pipe upon which it is to be used?

A. It is not.

Q. 33. Are nails usually driven through the neck of such strainers and the end of the pipe inserted therein when the neck of the strainer is a misfit by being made too large?

A. They are; oftentimes.

5381 Q. 34. Please state how such misfits usually occur in the business of laying pipe from springs and fitting strainers thereto. I mean how have they occurred in your experience?

A. The designation of all pipes, either lead or iron, is know- by the diameter of the bore; farmers ofttimes designate the same by the extreme diameter of the outside; therefore very frequently when giving an order for a copper strainer, such as this one, to be used upon lead pipe in a spring, it is very easily for them to make a mistake, and, carrying the size of their pipe in their eye from their home to the shop, wherever they go, the neck of the strainer is more often made too large, not having the exact size of their pipe, and in that case I have very often myself driven a nail through the neck of the strainer and through the pipe to hold it in proper position.

Q. 35. (Section of lead pipe shown witness, marked "Complainants' Exhibit E, H. J. M.") By what letter is that sample of lead pipe designated by the trade?

5382 A. Letter "E," the lightest pipe made.

Q. 36. Is that weight and variety of pipe usually used in conducting water from springs, and for what purpose is the same usually used in your business of plumber, &c.?

A. This weight of pipe is often used for conducting water from springs; also more generally used for waste pipes, especially of this diameter.

Q. 37. Is that weight of pipe used where considerable pressure is to be resisted or where the altitude of the spring is much above the point where the water is to be delivered?

A. It would be perfectly unsafe to use this weight of pipe in such cases where this size is used; I mean the size of bore; this is inch-and-a-quarter pipe.

Q. 38. Is that weight or brand of pipe usually used where water is to be raised by means of a pump from 16 to 20 feet? If it is not so used, please give the reason thereof.

A. It is not very frequently used except for purposes before stated.

5383 Q. 39. Would it be liable to collapse when used to raise water the distance stated by means of an air or suction pump at the upper end thereof?

A. Heavier pipe is always used in such cases for that reason.

Q. 40. By what letter is that weight or brand of pipe usually used for such purposes; designated by the trade? If more than one brand or weight is used, please name them.

A. If the size to be used is inch-and-a-quarter bore the letters "C" and "D" are most universally used.

Q. 41. Is the letter "B" also sometimes used in such cases?

A. It is, occasionally.

Defendant's counsel offers in evidence the section of lead pipe shown to this witness, which he has testified is of the weight or brand designated by the trade by the letter "B," and asks the notary to mark the same "Defendant's Exhibit B, Dorr C. Smith, notary public, Cortland county, N. Y."

Pipe received in evidence and thus marked.

5384 Direct examination closed.

Cross-examination of the witness conducted by S. S. KNOX, as counsel for the complainants:

Q. 42. You have testified to a well put down in front of the engine-house in this village. What was that well used for?

A. For fire purposes.

Q. 43. Was it ever of any practical use whatever for the purpose for which it was intended.

A. It was abandoned, I think, on account of the capacity of the pipe being to- small to create a sufficient supply.

5384½ Q. 44. Was there subsequently another well put down in close proximity to this well which was abandoned—I mean the one which you have testified was abandoned?

A. There was.

Q. 45. Is this well which was subsequently put down in front of the engine-house now in use and a practical well?

A. I don't know that it has ever been abandoned for the use for which it was intended.

Q. 46. Have you seen it used for the past several years occasionally?

A. I have.

Q. 47. How long since you last saw it used?

A. The last I remember was in the summer of 1879.

Q. 48. Did you reside in Cortland village at the time of the taking of the evidence in the interference case between Suggett and Mudge and Green over the driven-well patent?

A. I have resided in Cortland since 1850.

Q. 49. Did you know when this evidence in that interference case was taken?

A. I did know of it.

Q. 50. About when was that?

5385 A. I cannot remember.

Q. 51. Was it about 1866 or 1867?

A. It might have been. I can't remember.

Q. 52. Do you remember when the evidence was taken in this village in the case of Wm. D. Andrews *et al.* against Theodore Carmen?

A. I remember of it.

Q. 53. About when was that—what year?

A. I think it was about 6 years ago. I cannot remember positively.

Q. 54. Were you acquainted at that time with James Suggett and Byron Mudge?

A. I was.

Q. 55. Were you called as a witness in the interference case between Suggett, Mudge, and Green or the case between Andrews *et al.* *v.* Carmen?

A. I was not.

Q. 56. Have you resided continuously in Cortland village, N. Y., since 1850?

A. I have claimed my residence here since that time.

Q. 57. Have you been absent from Cortland village since 1860?

A. I have.

Q. 58. For what length of time?

A. Four months; the longest in 1870.

5386 Q. 59. Is that the only time you have been absent from Cortland village since 1860 for any length of time?

A. It is.

Cross-examination closed.

Redirect examination:

Q. 60. Please describe the second well in front of the engine-house in Cortland village—I mean the one now in use.

A. It is what is called a gang well. I think there — 5 pipes driven down and connected by elbows and unions to one main hydrant.

Q. 61. Since this gang well was made has a steam fire engine been purchased for the use of this village?

A. There has.

Q. 62. Can this gang well be used with this steam fire engine?

A. I don't know that it can.

Q. 63. Since that well was constructed, and about March, 1877, was there a fire engine in Masonic hall block, in this village?

A. There was.

5387 Q. 64. Was there also a fire in the rear of the Moore block, situated next south of the Masonic Hall block, on Main street, in this village, in July, 1878?

A. There was.

Q. 65. Were these fires large and disastrous to the buildings in which they occurred?

A. They were.

Q. 66. Is this gang well in front of the engine-house the nearest fire well to the location of these fires?

A. It is.

Q. 67. Was this gang well used in the extinguishment of these two fires?

A. I think it was not.

Q. 68. Was it ever used to obtain water with which to extinguish any fire, to your knowledge?

A. Not to my knowledge.

Q. 69. Was there also a fire in Taylor Hall block, on Main street, in this village, in the spring of 1880? I mean in Burdick & Co.'s clothing store.

A. There was.

Q. 70. Was there also a fire in Taylor Hall block, in the millinery rooms of Miss Mehan, since the construction of this gang well?

A. I think there was.

5388 Q. 71. Was water drawn from this gang well with which to extinguish either of these two last-mentioned fires?

A. I think not.

Q. 72. Was the hand fire engine used in the extinguishment of these four fires here mentioned?

A. It was.

Q. 73. From what source of supply was the water procured to be used by the hand engine on these several occasions?

A. The engine was set in the rear of the Calvert block and Taylor Hall block at a well and cistern there.

Q. 74. Where is this gang well situated with reference to distance & convenience to the location where these fires have occurred, as you have testified, in contrast and comparison with the well in the rear of the Calvert block and the cistern in the rear of Taylor Hall block?

A. It is nearest to most of the fires & more convenient as to location for all.

Q. 75. Has this gang well ever been used, to your knowledge, except to test the same and for purposes of experiment?

5389 A. It has not, that I know of.

Q. 76. Was the first well made by James Sugget in 1853, abandoned, as you have testified, used in the same way and for like purposes previous to the construction of this gang well?

A. It was.

Q. 77. How long have you worked at your trade of plumber, tinner, & gas fitter?

A. Over 22 years.

Q. 78. Have you been a member of the fire dep't of the village of Cortland? If so, state when you entered the service in that dep't & how long you continued therein.

A. I have been a member and was one of the first members of the fire dep't organized here, and was an active member over 12 years.

Q. 79. When was your connection with the fire dep't severed, if at all, and how long has it been since you ceased to be an active member thereof?

A. My connection as an active member ceased about 6 years ago; I am still an hon-ary member of the fire dep't.

5390 Redirect examination closed.

Recross-examination:

Re-X Q. 80. Are there not several wells in Cortland village with a single pipe to which the steam fire engine has been attached and thrown water continuously for several hours?

A. There is.

Q. 81. How many?

A. I should say as many as 5 or 6.

Q. 82. Will you swear there is not 15?

A. I will not.

Q. 83. What is the size and capacity of the steam fire engine of Cortland village, and whose make is it?

A. I don't know how the capacity of a steam fire engine was determined; it was by the Silsby Manufacturing Co., at Seneca Falls, New York.

Q. 84. How many pounds of steam does it carry when in operation?

A. I do not know that I ever noticed the steam gag*u*e with reference to the pressure; in my judgment it would be necessary to carry 75 pounds, at least.

5391 Q. 85. Have you seen it at work during a fire with two strings of hose of about 2½-inch orifice attached to a single pipe, and supply them both for several hours continuously?

A. I have.

Q. 86. Now, at the time of the fire in the Moore block, testified to by you, where was the well located to which the steam fire engine was attached?

A. My impression is that it was on the corner of Court and Main streets.

Q. 87. Is that a single-pipe well?

A. The water is drawn from a single pipe.

Q. 88. Was it more proper and advantageous for the hand engine, in these fires spoken of by you, on account of distance from water and the work it could accomplish, to throw into the rear of the buildings while the steam fire engine was throwing into the front?

A. I think, perhaps, it was.

5392 Q. 89. And for that reason would it not be better for the hand engine to supply itself with water from a well or cistern in the rear of those buildings than from the well in front of the engine-house?

A. The connection to the well or cistern in the rear of those buildings was more easily made and quicker made. It might have been for that reason that the hand engine was set in that location.

Second cross-examination closed.

Second redirect examination:

Q. 90. On the occasion of the fire in the Moore block, mentioned by you, was not the hand fire engine first attached to the gang well in front of the engine-house, and subsequently removed to the rear of the Taylor Hall and Calvert blocks by command of the chief engineer then in command of the Cortland fire department?

A. I do not know. When I arrived at the fire they were locating the hand engine in the rear of Taylor Hall block.

5393 Proceedings adjourned until 1½ o'clock p. m., Oct. 12, 1880.

At 1.30 o'clock p. m., Oct. 12, 1880, parties appeared as before, and second redirect examination of the witness, S. De Puy Mallery, continued:

Q. 91. Were not the streams of water thrown both by the steam fire engine and the hand engine directed at the same point from nozzles in the hands of firemen standing in front of the premises on fire, on Orchard street?

A. They were most of the time.

Q. 92. Was there any obstruction in the way of laying hose directly from the gang well to the premises where either of the fires mentioned occurred?

A. There was not.

Q. 93. Do you recollect the construction of a driven well upon premises formerly occupied by M. H. Mills as a hardware store, fronting on Main street, in this village?

A. I do.

Q. 94. Who now owns those premises?

A. Myself and B. F. Taylor.

5394 Q. 95. Do you know whether or not a royalty has been paid to William D. Andrews and Brother or to any of the complainants in this case under the patent and reissue of the same to Nelson W. Green upon this driven well?

A. I do know of such being paid to E. D. Dibble, who claimed to be the agent of Wm. D. Andrews & Bro. I have their license and a receipt for the money paid.

Q. 96. Were you present when this well was constructed? If so, when was it made?

A. I was present some of the time. It was made in 1862; I cannot give the month, but think it was in the summer.

Q. 97. By whom was it made?

A. James Suggett.

Q. 98. Describe the process of making the same and the location of the well, with reference to Main street.

A. The well was made by inserting a bar of iron pipe, drilled and pointed at one end, into the ground until a certain depth of water was reached, to which a pump was attached and water obtained.

5395 Q. 99. What do you mean by stating that the pipe was drilled at one end?

A. I mean rows of holes were drilled with a machine drill from one-eighth of an inch to one-quarter in diameter from ten to fifteen inches from the pointed end. The holes were drilled, commencing from where the taper of the point ended, up all around the pipe for from ten to fifteen inches. These holes were made for the purpose of admitting water and keeping out large gravel that would naturally fill up the pipe in driving.

Q. 100. Did this well furnish an abundant supply of wholesome water? If so, for how long was the same afterward used?

A. I- did supply an abundance, and always has been considered as good a well as ever was made in Cortland, and has been used ever since and to a very large extent and is in use now.

Q. 101. Did the well excite considerable public interest and create comment?

A. It did.

5396 Q. 102. State whether or not a large number of persons come to see it and witness its operation.

A. There was.

Q. 103. Was secrecy practised or enjoined by Mr. Suggett in respect to this well in any way?

A. None that I know of.

Q. 104. When this pipe was driven and the well completed was the earth surrounding the pipe in contact with the exterior of the pipe at all points around its entire circumference?

A. It was as far as could be seen; at the surface, where you could see it, it was.

Second redirect examination closed.

Second recross-examination:

Q. 105. Was this well driven in 1862, as you testified to, by Mr. Suggett the first driven well you ever saw?

A. It was not.

Q. 106. What was the first one?

A. The first one I ever saw was in G. N. Copeland's cellar, on Main street, in Cortland village.

5397 Q. 107. Who made that and when?

A. Jas. Suggett made it; I think it was made in 1861 or 1862.

Q. 108. How long after that one was made in Copeland's store was the one made in Mills' store you have testified to?

A. I can't tell how long. I did not see the Copeland well made. My best judgment is it was made in 1862.

Q. 109. Was the Copeland well made in the spring, summer, or fall of 1862?

A. My impression is it was made in the spring.

Q. 110. Are you positive that the well in Mills' store was made after the one was made in Copeland's cellar?

A. I am, but am not positive as to the date of making the Copeland well.

Q. 111. Does this same James Suggett, whom you have testified made the well in Copeland's cellar and in the Mills store, now reside here in Cortland village, Cortland Co., N. Y?

A. He does.

Q. 112. Is this James Suggett the same man or party who
5398 had the interference contest between Suggett, Mudge, and
Green?

A. I think it is.

Q. 113. Were you ever engaged or employed by James Suggett in connection with his patent on drive wells?

A. I was connected in a certain way with his patent.

Q. 114. When was that?

A. I think it was in 1865; that is my impression.

Q. 115. How long have you been connected with any of the hardware firms in Cortland village?

A. More than 21 years.

Q. 116. Have you ever known of a pipe as heavy as this one, marked Defendant's Exhibit B, referred to in your evidence, to be used as a suction pipe of a pump in either a well or cistern?

A. I have.

Q. 117. Where and by whom?

A. I can't tell now where, but I have used myself as heavy
5399 pipe, when connected to a pump and let down into the old-
fashioned open wells.

Q. 118. How many instances have you known pipe of this weight to have been so used?

A. Quite a number.

Q. 119. Name any one that used such pipe for such purposes.

A. I cannot name any one now.

Q. 120. Has it not been customary and is it not customary to use pipe as light as that marked Complainants' Exhibit E, in connection with the testimony of Eben Daly, taken before H. J. Messenger in this case, which exhibit is now presented to the witness, on all hand pumps, either used in wells or cisterns, where lead pipe is used?

A. It has been used for cisterns under contract jobs, but never known as light a pipe to be used for wells.

Q. 121. Are you familiar with the hardware trade in this village, where lead pipe is kept in stock?

A. I am not familiar with the hardware trade.

5400 Q. 122. Were you for years in the employ of Newkirk & Smith,
hardware dealers here in this village, and subsequently in the employ of Smith & Kingsbury, their successors, and while in such employ act as salesman for them a portion of the time or act for them in their absence, and did they not as such hardware dealers keep lead pipe in stock?

A. I was in their employ and did to a certain extent act as salesman and they did keep lead pipe in stock.

Q. 123. Did you ever see a pipe of the weight of Complainants' Exhibit E collapsed by pumping?

A. I don't think I have.

Q. 124. How much pressure is there to a pump where the suction pipe does not exceed 8 feet in length and 1½ inches in diameter and the discharge pipe is from one-half to an inch in diameter, as has been shown to be the case with the pipes connected to the pump in the Tallman windmill well, that being a force pump?

5401 A. I don't know anything about windmill pressure.

Q. 125. Where the suction pipe of a force pump is about 2½ times as great as the discharge pipe which pipe would first burst under pressure?

A. You couldn't get pressure on an ordinary force pump to burst either.

Second recross-examination closed.

Third redirect examination:

Q. 126. Do you mean by an "ordinary force pump" an ordinary force pump operated by hand or by some other power?

A. I understood the 125th question, last above, related to hand pumps.

Third redirect examination closed.

5402 (S'g'd) E. D. MALLERY.

Subscribed and sworn to before me Oct. 12, 1880.

[SEAL.] (S'g'd) DORR C. SMITH,
Notary Public.

George W. Way, being called as a witness for the defendant and duly sworn, testifies as follows:

5403 Q. 1. What is your name, age, occupation, and place of residence?

A. My name is Geo. W. Way; I am 43 years old; I am a blacksmith; I reside in Fabius, Onondaga Co., N. Y.

Q. 2. Did you ever reside in the town of Preble; if so, when?

—. I once resided in the town of Preble; it was part of the years 1858 & 1859.

Q. 3. Did you know Mr. Wm. E. Tallman in his lifetime?

A. Yes, sir.

Q. 4. Did you carry on a blacksmith shop while residing
5404 in the town of Preble; if so, where was it situated with reference to the residence of Wm. E. Tallman and Moses Tallman?

5405 A. I did carry on a blacksmith shop when I resided in Preble; the shop was right by the bridge over the stream that runs from the Wm. E. Tallman's mill, and about 10 or 15 rods a little southeast of Wm. E. Tallman's residence, and about 10 or 15 rods northeast of Moses Tallman's residence.

Q. 5. (Perforated iron pipe, marked "Complainants' Ex. D, No. 1, H. J. M.," and referred to in the testimony of Moses T. Tallman and Thomas Ballard, taken before H. J. Messenger, notary public, is here shown the witness.) Do you recognize this iron pipe as one you have seen before? If so, state when you first saw it.

5406 A. I think it is a part of a piece of pipe I first saw at the shop where I used to work in Preble.

Q. 6. About how long was the pipe of which this is a part at the time you first saw it at your shop in Preble, as you stated?

A. I have never measured the pipe. To the best of my recollection I should say it was from 5 to 7 feet long; but I should not say it was over 6 feet to the outside.

5407 Q. 7. Were you called upon at that time to do any work upon this pipe; if so, what?

A. I saw William E. Tallman up at the mill; he says, Put your horse in the barn; I have got a little job I want you to do. I says, What is it? He says, Down at the shop. I said, As quick as I go over to the house where I used to live I will come to the shop. I went to the house & came back to the shop and he had this pipe there then, and he wanted more holes made in the pipe; there was some holes in the pipe at that time. I commenced drilling the pipe. William E. Tallman said, You can punch it easier than you can drill it. I told him there was no fire, and he said he would go and get some shavings; he had got a crowbar he wanted sharpened. He went and got some shavings; I built a fire in the forge and heat this pipe and punched the largest holes in the pipe, that are nearest round; the long holes I did not punch.

5408 Q. 8. Did you sharpen the crowbar at that time; if so, for what purpose was it sharpened?

A. I did sharpen the crowbar. Mr. Tallman wanted it sharpened drag-tooth point to make a hole to drive this pipe in.

Q. 9. Did Mr. Tallman say at that time what he intended to do with this pipe? If so, state what he said.

A. He said his well was dry and he was going to drive it in the bottom of his well.

5409 Q. 10. Who was present when you punched this pipe, as you have stated?

A. William E. Tallman. There were three or four others, but I can't tell who.

Q. 11. Did you batter the end of this pipe together, as it now appears?

A. I don't think I did; I have no remembrance of it; I think it was done when I took it.

Q. 12. What next was done after you had punched the holes in this pipe and sharpened the crowbar, as you have stated?

A. I left some things at the house when I moved away from Preble, and after I had done this work for Mr. Tallman I went to look for them. When I came back I inquired for Mr. Tallman and was told that he was up to this well, and some one wanted I should carry a wrench and ham-er up to the well. I went up to the well and carried the wrench and hammer up there; I did not stay there at all; I did my business with Mr. Tallman, made arrangements to get a sack of flour from him, and came right
5410 back. When I was going up to the well I met Cyrus Harris
and Clinton Callen; I think I came back and set two shoes

for Mr. Callen on his horse; I loaded up what few things I could find and went home.

Recess until 7 p. m.

At 7 p. m. parties appeared, and the direct-ex'n of GEO. W. WAY was continued as follows:

Q. 13. Who was present at the well?

A. Tallman and a young man I took to be working for him.

Q. 14. What did you see done at the well, if anything?

A. They were taking some tools out of the wagon; Tallman stood by the well; I saw nothing done about putting a pipe down into the well; no one was in the well when I was there.

Q. 15. What tools did you see there?

A. I see this cro-bar I had sharpened; that and the hammer & wrench I carried were all that I saw.

5411 Q. 16. Did you see a pump or this pipe there?

A. I saw the pipe.

Q. 17. Did you see this copper strainer or this sheet-iron curb at or about the well on this occasion?

(Def't's counsel here shows the witness the sheet-iron curb referred to in the testimony of Thos. Ballard, and the copper strainer, also referred to in the testimony of said Ballard, taken before Hiram J. Mesenger, a notary public, at Cortland, N. Y., which complainants counsel here conceeds to be the same referred to in the evidence of said Ballard.)

A. I did not.

Q. 18. Where was this well located to which you have here referred?

A. Between the railroad and the road west of that running north and south; about half way between the two.

Q. 19. Where, with reference to the east and west road upon which Mr. Tallman lived, and about how far from these two highways?

A. It was 40 or 50 rods north of the east and west road, and at about the same distance from the north and south road. 5412

Q. 20. Was there a fence running east and west a short distance south of this well at that time?

A. I cannot say.

Q. 21. Was there a windmill erected at or near this well at that time?

A. I think not.

Q. 22. Was the frame of a windmill in process of erection and completion there at that time?

A. Not that I know of.

Q. 23. When was it that you punched this pipe as you have stated?

A. Either in the month of August or September, in the year 1859.

Q. 24. On whose premises was this well located that you found Mr. Tallman, that you have stated?

A. William E. Tallman's.

Q. 25. Did you make any entry or charge against Mr. Tallman for the work that you did in punching this pipe and pointing this cro-bar, as you have stated; if so, where is the book in which the entry was made?

5413 A. When we settled I think there was a charge made in a book for work done in drilling the pipe or work done on the well. Just how the charge was made I cannot state. I think the charge is mentioned in this book. The book I don't know where it is. I looked for it, but could not find it. Wm. E. Tallman wrote to me for the book before he died, twice. Ceylon H. Lewis spoke to me about the book and I handed him the book at Fabius P. O. He took it to Tallman (Wm. E.), and I have never seen the book since.

Q. 26. Have you called upon Mr. Lewis within a few days to get this book; if so, what did you learn about it?

A. Th- next *next* day after I was here (one day last week) I saw Mr. Lewis; it was last week, on Saturday. I told him I wished he would go to Tallman & get that book I let him take. He said he didn't take the book; that I showed him the book at the post office and he never took it away from there. He told me that he

5414 thought a man by the name of Parsons had the book. I sent to Mrs. Wm. E. Tallman's for the book & couldn't find it. She said the books and papers had all been looked over and there was no such book there.

Q. 27. What Mr. Parsons did he say had this book?

A. He didn't say any more than that he said, I think Mr. Parsons has this book.

5415 Q. 28. Did you look into this well on the occasion you were there as you have stated?

A. Yes, sir.

Q. 29. Was there any water in it?

A. There was a moisture there and a little mi*ght* of water, but none that you could dip up.

Q. 30. Did you ever ask Mr. Tallman how this well worked on that occasion; if so, what did he reply?

5416 A. I never asked him as I know of.

Q. 31. Did he ever say anything about it in your hearing; if so, what?

A. I don't recollect now about having any conversation with him about it; I might have had.

Q. 32. Do you recollect of asking him on one occasion how his iron well worked?

A. Yes; I recollect it; I had just been up and seen it.

Q. 33. What did he reply?

A. "All right, sir."

Q. 34. When was this, with reference to the day when you punched the pipe?

A. This was the day camp-meeting was going on there; it was after I had punched the pipe.

Q. 35. About how long after you had punched the pipe?

A. I should think it was from 2 to 4 weeks.

Q. 36. Did you see this well after the day you punched the
5417 pipe as you have stated; if so, when did you see it and who was with you, if any one?

A. I saw it the day of this camp-meeting; my father was with me; we put our horses out at Callen's barn, and after we had put out our horses we came back down the road; we got over the fence & went out where the windmill was and see it work.

Q. 37. Was this windmill located at the well when you saw Mr. Tallman the day you punched the pipe?

A. Yes, sir.

Q. 38. Was the windmill at work and pumping water from this well on the day you saw it with your father, on the day you have stated?

A. Yes, sir.

Q. 39. Did you look into the well on that occasion?

A. I did.

Q. 40. Was there any water in view from the top of the well at that time?

A. I don't recollect; there might have been some.

Q. 41. What did you see in the well on that day? Please describe what you saw.

5418 A. I looked down into the well and saw the pipe that the water was running out of. I see the pump on the end of the pipe.

Q. 42. How far above the bottom of the dug well was the pump situated?

A. I couldn't tell; I did not measure it; I did not notice it particularly.

Q. 43. Was the pump situated in the well and at some distance below the mouth of the well?

A. The pump was down in the well.

Q. 44. Was Wm. E. Tallman an ingenious man and skilful in the construction of mechanical contrivances and machines?

A. I considered him so.

Q. 45. Please mention some of the appliances constructed and invented by him.

A. A threshing machine and straw-carrier, a manner in which he ran his saws and done his churning, and the plan he had
5419 for his rain water, carrying it about his house very nicely.

Direct examination closed.

Proceedings adjourned until 8.30 a. m., Oct. 13, 1880.

5420 Oct. 13, 1880, at 8.30 a. m., parties appeared pursuant to adjournment. Geo. L. Waters and N. J. Parsons appear as counsel for the complainants and J. H. Palmer appears for defendant as counsel.

Cross-examination by N. J. PARSONS of the witness, GEO. W. WAY:

Q. 46. Mr. Way, what part of the years of 1858 and 1859 did you reside in Preble and near the residence of Wm. E. Tallman?

A. I think from June, 1858, until March or April, 1859.

Q. 47. Did you rent the house where you then resided; if so, from whom?

A. I lived in two different houses while there; the first house I rented of a Mr. Anderson, I think, and the second house I rented of Wm. E. Tallman.

Q. 48. About what length of time did you live in each of these houses? State as near as you can.

A. It's my impression that I lived in the Anderson house from 4 to 6 months; I can't tell exactly; and in the Tallman house from five to six months; I can't tell here how long it was. 5421

Q. 49. Who, if you know, occupied the Tallman house previous to your moving into it?

A. A man by the name of Howe; I cannot give his full name.

Q. 50. Did this man Howe work for Wm. E. Tallman; if he did, at what business, and was it before or after you went there?

A. He did work some for Mr. Tallman on the farm; I know nothing of Howe before I went there; he worked thus after I went there; I mean while I was in the shop.

Q. 51. Are you acquainted with Hiram Buchannon?

A. Not that I know of.

Q. 52. Are you acquainted with Geo. Stone?

A. I don't remember any man of that name.

Q. 53. Who, if you know, beside this Mr. Howe worked for Wm. E. Tallman on his farm the season of 1859?

A. I don't know anything about who worked for him in 1859; this Mr. Howe worked for Tallman in 1858.

5422 Here the cross-examination was continued and conducted by Geo. L. Waters, as counsel for complainants:

Q. 54. Do you know who occupied these premises where the well was at the time you punched the pipe?

A. I do not; I suppose Tallman did; I don't know any more than that.

Q. 55. Ezekiah Klock—do you know him?

A. I know some Klocks, but don't know them by their given name.

Q. 56. Did you know of a man by the name of Klock occupying the premises where the well was; if so, when?

A. I was told that Klock took Tallman- farm; I heard of his working the farm.

Q. 57. When did you learn that he occupied it?

A. I cannot tell whether it was in 1859 or 1860; I cannot tell when — occupied it.

Q. 58. Then, as I understand you, Mr. Way, you have no memory which enables you to state anything about who occupied the farm either before or after the punching of this pipe?

A. I know that Tallman occupied it the year before, and I think he occupied up to the time I left there in the spring of 1859. 5423

Q. 59. Did you not answer to question 54 that you did not know who occupied the premises when the pipe was punched, but supposed Tallman did, and that that supposition was all you knew about it?

A. That is the way I understand it, and that is the way I answered it.

Q. 60. Do you mean now to be recorded as testifying to more than a supposition as to who occupied this farm at the time the pipe was punched or prior to that time or subsequent thereto?

A. The winter and spring of 1859 I think Tallman occupied it.

Q. 61. How far do you say you then lived from the residence of Wm. E. Tallman?

A. I lived at Fabius village when the pipe was punched; it is some 12 or 13 miles.

Q. 62. Were there no blacksmith shops nearer the residence of Wm. E. Tallman than the one then occupied by you at Fabius?

A. Yes, sir.

Q. 63. How many?

5424 A. There were a great many nearer than I was.

Q. 64. How near to the residence of Mr. Tallman was the nearest blacksmith shop?

A. One right on his premises that he owned when I was there.

Q. 65. Was this pipe punched at the shop which you mentioned in your last answer as being on the premises of Mr. Tallman?

A. Yes, sir; part of it was; the part I punched was.

Q. 66. How came you to be there?

A. I went after some things that I had left in the house when I left there.

Q. 67. Did you go with a team?

A. I went with one horse & a wagon.

Q. 68. What time in the day was it that you punched the pipe?

A. I think it was a little after noon.

Q. 69. Had you left your house at Fabius on that day; if so, at what time did you leave there?

A. I had, and at about 8 o'clock in the morning.

Q. 70. What time did you get, then, at Mr. Tallman's?

A. Near as I can recollect, it was between twelve and one o'clock.

5425 Q. 71. Do you think it was nearer twelve than one, or otherwise?

A. I have no means of knowing the exact time, but they were out from dinner & had been to dinner.

Q. 72. What did you do when you first got there?

A. I drove up in front of the mill, where I saw Tallman and some other men standing. Tallman passed the time of day with me & asked me to put my horse in the barn & feed him, and I put my horse in the barn.

Q. 73. Where was the barn?

A. Right near by the mill.

Q. 74. Did you unharness your horse?

A. No, sir.

Q. 75. What did you feed him and where did you get the feed?

A. One of his men got the grain for my horse.

Q. 76. What did you do after putting out your horse?

A. I went over to the house where I used to live.

Q. 77. How far is that from the barn where you put out the horse? — About 20 or 25 rods, & not over that, I think.

5426 Q. 78. What did you do at that house?

A. I inquired if there was a cupboard there that I had left there, and for some other things I had left there—a keg and cider barrel. I did not find the cupboard; I found the keg and barrel down in the cellar.

Q. 79. Did you then get the things out of the cellar ready to load?

A. No, sir.

Q. 80. What did you do?

A. I went back to the shop.

Q. 81. About how long were you gone from the barn where you put your horse until you got back from the shop?

A. I should not think over 15 or 20 minutes.

Q. 82. You say, in answer to question 7, that Mr. Tallman wanted you to punch some holes in this pipe; did you understand that you were doing it merely to accommod-e him, or that you were doing a piece of work in the line of your business for which you were to receive pay?

A. He asked me when I drove up there to do a job of work for him. I knew he would pay me what it — worth; did not 5427 think anything about the pay at the time. I could tell about what he said if I am allowed to.

Q. 83. Tell what he said.

A. After I drove up there & he had said, Put your horse in the barn, he said, I've got a little job for you to do; I said, What is it? He said, A job in the shop; I told him that as soon as I could go over to the house where I had lived I would come back to the shop and do it, and I done so.

Q. 84. Did he pay you for it that day?

A. I got a sack of flour of him that day.

Q. 85. Did he pay you for this work that day?

A. We had some unsettled account, and I told him that when I settled I would make the flour all right, and he said that would be all right.

Q. 86. Did you make a charge for this work?

A. I did some time afterward. When we settled that was the time it was brought in.

Q. 87. How long was that settlement after the work was done?

A. It was not over 2 months afterward.

Q. 88. Why didn't you charge it at the time the work was done?

A. My book was not there.

5428 Q. 89. Why didn't you charge it when you got home that night?

A. I don't know why I didn't; can't tell the reason why.

Q. 90. When you made your settlement about two months after, at the time you say you charged it, did you make a written charge of it?

A. I did.

Q. 91. Give, as nearly as you can, the words of that written charge.

A. I think it was, "For drilling pipe and work done on well, $1.00." I might have said in the charge punching instead of drilling and for well instead of on well.

Q. 92. Where did Mr. Tallman get the pipe from at the time when he gave it to you to punch?

A. When I came back from this house Mr. Tallman was in the shop and the pipe was there.

Q. 93. Was the pipe apparently a piece of new gas pipe or otherwise?

A. I should call it new pipe.

Q. 94. As I understand you, a large number of holes had been punched in it before you saw it?

5429 A. Yes; there were holes in it when I first saw it. I should think over two-thirds of the holes that are in it now had been punched when I first saw it.

Q. 95. Had the pipe, then, apparently been heated for the punching of the holes that were in it at the time you took it?

A. It had.

Q. 96. When did you see the pipe again after that day, and where?

A. Don't know as I ever saw it after that day until I saw it here in Cortland a few weeks ago.

Q. 97. That time, on the day you punched the pipe, was over 20 years ago, was it not?

A. Yes, sir.

Q. 98. Are you willing to testify positively that this is the same piece of pipe that you punched for Wm. E. Tallman in the year 1859?

A. I swear that I think it is.

Q. 99. And is that as strong as you will put it?

A. I am not going to swear positively to a thing I might be mistaken in.

Q. 100. At what time in the day did you go to the well in question? I mean the day you punched the pipe.

5430 A. I don't think it was an hour after I had done the work that I went up to the well.

Q. 101. What did you do there at the well?

A. I spoke to Mr. Tallman about getting a sack of flour.

Q. 102. Did you do any work at the well at all?

A. No, sir.

Q. 103. How long were you there?

A. Don't think I was there over 5 minutes.

Q. 104. Have any conversation about the well while there?

A. Something was said about the well, but whether he said that was the well in which he was going to drive the pipe or whether I asked him that, I don't know.

Q. 105. Did you see anything done at the well?

A. No, sir.

Q. 106. When did you visit the well again, if ever?

A. During the camp-meeting along in the fore part of September of 1859.

Q. 107. How long were you at the well at that time?

A. I went there first to see if the well was pumping water. It was a curiosity to me to know whether it would pump water or not.

Q. 108. How long did you stay there?

A. Not over 5 minutes, I think.

Q. 109. Was the windmill in operation?

A. It was.

5431 Q. 110. Was the wind blowing so that water was being pumped while you were then present?

A. It was.

Q. 111. Who went with you to visit the well at the time?

A. My father.

Q. 112. Is your father still living; if so, where?

A. He is not living.

Q. 113. Did you go down into the well at this time?

A. No, sir.

Q. 114. Did you look in?

A. Yes, sir.

Q. 115. Was the well covered over at all?

A. I think nothing but the frame of the windmill stood over it.

Q. 116. Do you say that you could see a pipe in the bottom of the well?

A. I just merely looked over into the well & I couldn't give a description of any of the inside workings.

Q. 117. Did you ever see this well again?

A. No, sir.

Cross-examination closed.

5432 Redirect examination:

Q. 118. Was there a thread cut upon the end of this pipe opposite to the perforated end when you punched the holes in it, as you have stated?

A. There was.

Q. 119. Was there anything said about marring this thread? If so, what was it and who said it.

A. When I commenced drilling this pipe I laid one end of it on the floor, and Tallman said, Be careful and not mar that thread; the pump goes on there.

Q. 120. Did Mr. Tallman say how he expected to obtain water from this pipe after it was driven into this dug well? If so, state what he said.

A. He said there was a pump going onto the end of the pipe that the thread was on.

Redirect examination closed.

5433 Recess taken to 1.30 p. m.

At 1.30 p. m., Oct. 30, 1880, defendants appeared as before; complainants by D. L. Hulburt, as counsel, who will complete the cross-examination of this witness *de bene esse.*

Q. 121. When did you first observe that there was a thread cut on that pipe?

A. When Mr. Tallman called my attention to it.

Q. 122. When and where was that?

A. In Tallman's blacksmith shop in the fall of 1859, I think.

Q. 123. Was it an inside or an outside thread on the pipe?

A. On the outside of the pipe.

Q. 124. What was the diameter of that pipe.

A. I never measured the pipe.

Q. 125. State the diameter of the pipe you saw there in the blacksmith shop as near as you can recollect it.

A. I think it is inch-and-one-half pipe, outside diameter.

Q. 126. What was the length of the thread on the pipe—that is, how far it extended on the pipe?

5434 A. I can't tell exactly; I should think about one inch; I never measured it to see.

Q. 127. How many threads were there to an inch and how deep were they cut, should you judge?

A. I can't tell; I did not notice close enough to tell; I saw there was a thread and that is all I paid attention to, I was careful of it afterwards.

Q. 128. Are you sure, Mr. Way, that you made an entry on your book of a charge against Mr. Tallman for that little work done for him in his shop under the circumstances you have detailed?

A. I think I am.

Q. 129. Will you swear positively that you did so make a charge? Please answer directly, yes or no.

A. I don't believe I can answer it that way; I am very sure I did, but I would rather see the book.

Q. 130. Do you know personally whether Mrs. Wm. E. Tallman ever made a search for that book?

A. I do not.

5435 Q. 131. Did you ever work in Mr. Tallman's shop after you left there in 1859?

A. I did a few jobs there.

Q. 132. When?

A. In the fall of 1859.

Q. 133. Ever after that?

A. No, sir.

Q. 134. Can you state anything else that was said on any other subject at the time Mr. Tallman called your attention to the thread on the pipe?

A. I asked him if he knew what had become of that cupboard I left in his house.

Q. 135. Anything else?

A. I don't remember anything else at present.

Q. 136. Have you a driven well, or did you ever have one?

A. No, sir.

Q. 137. Since you left Preble, in March, 1859, your residence has been in Fabius, Onondaga Co., has it not?

A. Not all the time. I was away from there one year, at Delphi, in 1861, and most a year, in Preble, in 1864. I worked there with William Hong, I think.

5436 Q. 138. Who worked in the blacksmith shop before and after you did?

A. William Tallman built this shop while I was there for me to work in. I helped build it. When I went away from there I left James Burr there; can't say how long Burr worked there. I did not see any blacksmith there the day I punched this pipe.

Q. 139. You never saw this pump out of the well, did you?

A. No, sir; not that I know of.

Q. 140. Was this windmill regarded as a curiosity in the town?

A. I can't say.

Q. 141. Did you ever know of any one making a driven well from any ideas gathered from this Tallman well, of your knowledge?

5437 A. No, sir; I did not.

Q. 142. Where is Delphi situated, and how far from Fabius?

A. Five miles northeast.

(S'g'd) GEO. W. WAY.

Subscribed and sworn to before me Oct. 13th, 1880.

[SEAL.] (S'g'd) DORR C. SMITH,
Notary Public.

5438 The defendants here calls R. **Holland Duell** as a witness, who, being duly sworn, testifies as follows:

Q. 1. What is your name, age, occupation, and place of residence?

A. My name is R. Holland Duell; my age is 55 years; my occupation is a lawyer; I reside in Cortland, Cortland county, N. Y.

Q. 2. What positions of public trust and responsibility have you held?

A. I was district attorney of Cortland Co., county judge of same county, member of Congress four terms, assessor of internal revenue two years, and Commissioner of Patents.

5439 Q. 3. How long have you resided in Cortland?

A. Thirty-two years.

Q. 4. Did you know William E. Tallman in his lifetime; and, if so, for how long a time did you know him and how intimately?

A. I knew William E. Tallman; my acquaintance commenced with him about 1856 and I knew him intimately.

Q. 5. Did you ever have any correspondence with him concerning a driven well constructed by him upon his farm, in the town of Preble, by inserting a piece of gas pipe perforated with holes & pointed at one end into the bottom of a dug well which had failed to yield a supply of water? If so, please state how this correspondence originated.

5440 A. I did have a correspondence with William E. Tallman with relation to the matters inquired of in the interrogatories.

This occurred in 1877, as near as I recollect. I had heard a rumor that he knew of a driven well put down on his premises in Preble
many years before, and thereupon I wrote Mr. Tallman for
5441 the particulars, as I was then defending certain actions brought
by these plaintiffs against parties for infrin*d*gement of the N.
W. Green patent. I received a letter from Mr. Tallman in reply to that inqu-ry.

Q. 6. What became of that letter?

A. I kept it for a time and supposed it was still among my papers, but after a di*l*ligent search I have been unable to find it. I believe it is lost.

Q. 7. Do you recollect the contents of this letter so as to be able to state the same?

A. I reccollect the substance of the letter, and can state the substance of it so far as it relates to this well of which I have spoken.

Q. 8. Please state the contents of this letter or the substance of the same as near as you are able.

5442 Questions by D. L. HULBURT, complainants' counsel, to which questions witness testified as follows:

Q. 9. When did you receive the letter referred to?

A. I- the summer or fall of 1877.

Q. 10. Do you know, of your own knowledge, whether it was written by William E. Tallman?

A. I was famil*l*iar with his handwriting, and had often seen him write, and know that the letter was in his handwriting.

Q. 11. What did you do with that letter?

A. I exhibited it to John W. Suggett and several others; I then placed it, as I now remember, in a bundle containing the papers in the suits before referred to.

Q. 12. Are you sure that you did not leave it with Mr. Suggett, or that he did not take it afterwards?

A. I feel quite sure that Mr. Suggett did not retain it in his possession, for I saw it among my papers some time after Mr. Suggett had read it.

Q. 13. On what occassion was that, and where?

A. I think at Ilion, Herkimer Co., when taking testimony there in these driven-well cases.

5443 Q. 14. When next did you see it?

A. I have no reccolection of seeing the letter since that time.

Q. 15. You did not see William E. Tallman write that letter?

A. No, sir.

Q. 16. When did you first make search for the letter?

A. I think about two month ago.

Q. 17. Have you searched recently?

A. About two weeks ago, at the request of Mr. Suggett, I made a very thorough search for the letter; I have not searched since.

Examination here resumed by I. H. PALMER, counsel for defendant, and question No. 8 repeated to witness, to which witness answered as follows:

A. The letter stated in substance that about a certain year, and I think the year 1859, the writer experimented with a piece of gas pipe perforated at the lower end, which he drove into the
5444 bottom of an old well; the old well had failed to furnish water, and he was desirous of obtaining water for his stock, which he kept in his pasture, in which this well was situated. He stated that he obtained a piece of gas pipe and had a blacksmith punch some holes in it; then battered one end together and drove the pipe into the ground. The perforations were made, he stated, so as to admit water into the pipe. He drove the pipe until he reached water; then he attached more pipe of some kind; I don't remember the kind of pipe that he attached, and he drew water through the pipe that he drove into the earth; he said that the pipe he drove into the earth at the bottom of the old well was in the possession of Moses T. Tallman, of Preble, who was his brother.

Direct examination closed.

Cross-examination by Mr. WATERS:

C. Q. 18. How long, and when were you Commissioner of Patents?

A. During the years 1875 & 1876; from the summer of 1875 to Feb., 1877.

5445 Q. 19. What was your relation, professionally, to the so-called driven-well cases at the time you received this letter from William E. Tallman?

A. I was at that time counsel for certain parties residing in Herkimer Co., N. Y., who had been sued by William D. Andrews *et al.* for infringements of the N. W. Green patent on driven wells.

Q. 20. Have those cases been terminated; and, if so, how?

A. They were terminated by settlement after the complainants had taken their affirmative evidence.

Q. 21. Did those defendants pay the royalty required, as you understood?

A. I so understood it.

Q. 22. Were you also the counsel for a combination organ-
5446 ized to defeat this patent, which combination was headed by Charles M. Titus, of Ithica?

A. I was retained by Charles M. Titus to examine witnesses here at Cortland, but I did not consider myself generally retained in those cases.

Q. 23. And did the suits defended by that combination after taking some testimony result in the abandonment of the cases by the defense and the payment of the royalties demanded, with costs?

A. I have no personal knowledge; but I understood that Mr. Titus gave up the contest and paid a part or all of the costs of the complainants, also the royalties, and, as I understood, the other cases were disposed of in the same way; that a stipulation was drawn up,

as I understood it, in the Titus case that the other cases
5447 should be disposed of in the same way, though I never saw
the stipulation.

Q. 24. Are you not also the solicitor for the defendants in a large number of driven-well cases which are still pending undetermined?

A. Yes, sir.

Q. 25. Was not this letter which you say you received from Mr. Tallman obtained at a time when you were seeking for evidence for the defense and in response to a letter written by you to Mr. Tallman?

A. It was.

Q. 26. Have you the letter which you wrote to Mr. Tallman or a copy of it?

A. I have not; I took no copy of it.

Q. 27. Do you pretend to give any more than the substance of the letter?

A. I do not.

Q. 28. Is it not your custom to preserve your correspondence?

A. As a general thing it is.

Cross-examination closed.

5448 Redirect examination:

Q. 29. Have you now or have you had any connection as counsel or in any other way in behalf of the defendants in this case or any of the suits stipulated to abide a common event?

A. I have not.

Redirect examination closed.

Recross-examination:

Q. 30. In some of the cases that you are now acting as counsel and solicitor for the defense against the Green patent, wherein Mr. Goodrich is counsel for some of these complainants, wasn't it agreed between you, in order to save expense and time, that you should defer the taking of testimony in those cases until the determination of these cases mentioned in question 29?

5449 A. There was an understanding of that kind between Mr. Goodrich and myself.

Q. 31. The same defenses are set up in this case, as you understand, as *are* you have set up in your cases?

A. I have not seen the answers in these cases and cannot make answer to the question.

Recross-examination closed.

(S'g'd) R. HOLLAND DUELL.

Subscribed & sworn to before me Oct. 13, 1880.

[SEAL.] (S'g'd) DORR C. SMITH,
Notary Public.

Proceedings adjourned until October 14, 1880, at 10 o'clock a. m.
(Signed) DORR C. SMITH,
Notary Public.

5450 OCTOBER 14, 1880—at 10 a. m.

Parties appeared pursuant to adjournment.

Complainants appear specially and will examine *de bene esse.*

LUCIEN DEXTER, called a- a witness for the defendant, and, being duly sworn, testifies as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Lucien Dexter; age, 43 years; Cortland village, New York; occupation, hotel keeper, proprietor of Dexter House.

Q. 2. How long have you resided in Cortland village?

5451 A. 23 years.

Q. 3. In the year 1862 were you the keeper and proprietor of a saloon, restaurant, and dining-room in this village?

A. Yes, sir; and it was located near the corner of Mill and Main street-, in the business part of the village.

Q. 4. Did you cause or have a driven well made in that saloon or restaurant?

5452 A. Yes, sir; and I think it was made in the fall of 1862.

Q. 5. How was that driven well made?

A. By driving a solid bar of iron into the ground and making a hole and then putting in a perforated pipe; I think the pipe was an inch-&-¾ gas pipe; it might have been an inch and ½ in diameter.

Q. 6. How was the pipe perforated and the well constructed?

A. There was a conical iron point or plug in the lower end of the pipe, and holes were drilled in the pipe just above the points. After the hole had been made with the iron bar this perforated 5452½ pipe was inserted therein and driven about 12 feet from the bottom of the cellar. To this pipe a pump was attached by an iron coupling screwed on, and water was obtained by means of this suction pump.

Q. 7. How long did you continue to use this driven well?

A. I think I am using it yet; that would be about 17 years. I am using the same hole.

Q. 8. Did you know Col. Nelson W. Green?

A. Yes, sir.

Q. 9. Do you remember of his being often in your saloon in the years 1862 and 1863?

A. I remember in 1863; I would not answer in 1862.

Q. 10. About how often would he be in?

A. I could not say as to that.

Q. 11. Give us some idea, as near as you can remember.

A. I have not much of an idea about it; he used to come in occasionally; he might be in every day and he might be in every week or two weeks.

5453 Q. 12. Was this driven well in the same room in which Col. Green used to come.

A. The pump was.

Q. 13. What was Col. Green's business generally when he came there?

A. I would say he came in for a chat or to look at a paper.

Q. 14. After he first commenced his visits at your place of business, about how long did he continue to come there?

A. He was a frequent visitor there, I think, as long as he lived here.

Q. 15. Was he a man who apparently had any business?

A. I think not any particular business.

Q. 16. Did you often see him in the streets and around the village in 1863, after his return from the army, which was in April, 1862?

A. I did.

Q. 17. Was he a man who apparently had a great deal of leisure?

A. Yes, sir.

Q. 18. How long would he generally stay at a time when he visited your saloon?

A. Not long.

5454 Q. 19. What would he chat about—was it the general news of the day?

A. I presume so, but I could not say as to that; I do not remember the conversations at all nor the substance of them.

Q. 20. Were you on friendly terms with Col. Green at this time?

A. Yes, sir.

Q. 21. The gas pipe to which the pump was attached to could be seen by any one in the room, was it not?

A. Part of it; two feet and four inches of it.

Q. 22. How long after the well was made was the pipe thus visible?

A. 8 or 9 years.

Q. 23. Was there considerable discussion and talk in the saloon at the time the driven well was made and for some time thereafter
about the novelty and utility of the invention, and did you
5455 not frequently have discussions and talks about it in the
saloon there? State generally what the facts are in this particular.

A. I often heard it talked of; I could not give any particular conversation that I heard, only I heard it talked of by different parties how much Suggett was going to make out of this patent.

Q. 24. Suggett had not got it patented then had he, but was contemplating getting it patented, was he not?

A. He had not got it patented when mine was put down, but was talking about it.

Q. 25. Would Col. Green often read the newspapers in your saloon at this time?

A. Yes, sir.

Q. 26. He never entered into any discussions or conversations with you in relation to his shooting McNett or his other alleged troubles, did he, at this time?

A. No, sir.

5456 Q. 27. When he was in the saloon then, where this driven well was, frequently, as you say, reading newspapers and chatting and apparently a gentleman of leisure, did he make any claims of being the inventor of the driven well?

A. I never heard him.

Q. 28. Do you think it probable or even possible that a person could have visited your saloon and been there as long and as often as you say Col. Green was, right in the room where this driven well was being constantly operated and the pump thereon worked, and not have known that it was a driven well; taking into consideration in giving your answer the fact that Suggett and Mudge were engaged in making driven wells in Cortland at this time?

A. I should think not.

Recess taken until 1 p. m.

5457 At 1 o'clock p. m. parties appeared as before, and the direct examination of LUCIEN DEXTER continued:

Q. 29. Will you now give your reasons for your last answer, giving fully?

A. Well, my reasons are that the pump was right in my main sitting-room, and it was operated by nearly nine out of ten that came into the room, and the pump and pipe was open, where a portion could be seen, and a great deal of conversation was had there over the well business as well as war talk.

Q. 30. Was there also some talk in the village at this time that Suggett had invented a good thing and was in a fair way, if he got it patented, to make some money out of it?

A. I heard more or less conversation that if Suggett got the well patented he would make some money out of it.

Direct examination closed.

5458 Cross-examination by Mr. HULBURT, *de bene esse:*

Q. 31. Was the well which you have mentioned on your direct examination the one that was put down by Mr. James Suggett?

A. Yes, sir.

Q. 32. As I understand you, you cannot swear positively what year it was put down. Do you wish to be so understood?

A. Not positively; but it was put down either in 1862 or 1863.

Q. 33. Have you any memoranda to which you can refer and ascertain the exact times it was put down?

A. I do not know for certain, but think I could find something by which I could, perhaps by looking over my old books. I have nothing at hand now.

Q. 34. Has the building been altered in the construction of its rooms and the room where this well was since the well was put down?

A. Yes, sir.

Q. 35. Is the pump on that well, which you say is now in use, at the same place it was when the well was first constructed?

5459 A. No, sir.

Q. 36. You say the well is still in use. Has not a pipe been put into it and another pump attached?

A. Yes, sir.

Q. 37. Was this pump of the well, at the time it was put down, on a sink in the northeast corner of your (then) sitting-room?

A. Yes, sir.

Q. 38. Was the outside door of the saloon on the west side of the sitting-room?

A. Yes, sir.

Q. 39. You never saw Col. Green pump any water at this pump that you remember of?

A. I could not say that I ever did.

Q. 40. You never heard him speak of the pump, did you, or in relation to this well?

A. I do not know that I ever did.

Q. 41. Have you any recollection that this well or any other driven well was ever spoken of or discussed in Col. Green's presence in your saloon or any other place?

A. No, sir.

5460 Q. 42. You say that you do not consider — probable or even possible that any one who visited your saloon as frequently and stayed as long as Col. Green and known of this driven well. You do not mean thereby, Mr. Dexter, that you have any positive knowledge that Mr. Green knew anything about this driven well or any other driven well?

A. I do not know that he ever spoke to me in regard to this driven well; therefore I could not say that he had any positive knowledge of it.

Q. 43. Could any one tell by looking at this pump and pipe that was visible above the floor that this was a driven well?

A. Yes, sir; the man that put it down; no one else could by looking at the pump and pipe.

Q. 44. This well was driven in the cellar, was it not, and the pipe came up thro' a small hole in the floor, did it not?

A. Yes, sir.

Q. 45. You testified a short time ago you could not tell whether the well was put down in 1862 or 1863. Was it put down in
5461 the latter part 1863 or, in other words, was it put down in the winter of 1862 and '3?

A. It was.

Q. 46. Can you testify positively that you saw Col. Green in your saloon at any time during the winter of 1862 and '3?

A. From the 1st of December, 1862, to the 1st of April, 1863, I should hate to say that I could swear positively that he was in there.

Q. 47. From the 1st of April, 1863 to the 1st day of March, 1864, can you now testify positively that Col. Green was in your saloon? If so, state the date.

A. I can state that he was during that time, but I cannot state the date.

Q 48. On how many occasions can you swear positively that he was in during that time?

A. I will not swear to any particular number of times.

Q. 49. Will you swear positively that he was in more than once during that time?

5462 A. I should say I could. If he was in once he was in more.

Q. 50. How many times during that time will you swear positively that he was present in your saloon? Of course, if you can testify that he was there more than once to your positive knowledge there is a number of times that you can testify to positively that he was there. That number I ask for.

A. I will swear positively that he was there once.

Q 51. You state that Col. Green, in 1862 and 1863, was apparently a gentleman of leisure; was he not, during that period, engaged in an earnest endeavour to be reinstated as colonel of the 76th regiment, which endeavours took him to Washington, New York, and to other places; and was he not also engaged in preparing his defense to the indictment found against him for shooting McNett; and was he not also engaged in defending suits brought against him by 5463 reason of matters of the 76th regiment, which suits were tried in the towns of Homer, Solon, Virgil, Cortlandville, and other places?

A. I think he was engaged part of the time in defending the McNett suit, and think he was away at Washington, so I understood it, and at Albany. The other suits I do not recollect anything about. I supposed his visits at Washington and other places was to look up testimony in the McNett case.

Q. 52. Will you now go to your hotel and examine your books and ascertain the exact date, if possible, this well was put down?

A. I will.

The witness here leaves for the purpose of examining his books.

Q. 53. Mr. Dexter, have you made the search for the memoranda or books asked for in the above question to fix the 5464 date of putting down the well in your saloon; and, if so, what have you found in relation thereto?

A. I have made the search and found nothing. I have found only one book back of 1864, and that is a book of 1859.

Cross-examination closed.

Redirect examination by Mr. Palmer:

Q. 54. Was this pump and pipe in the front room of your saloon and situated so that it could be seen through the windows from Main street?

A. Yes, sir.

Q. 55. How far from the front door was this pump and pipe?

A. 24 feet, and directly opposite the front door.

Q. 56. When did you commence to keep this saloon or restaurant?

A. I commenced in 1859 and kept it a year and then came back in November, 1862.

5465 Q. 57. From Nov., 1862, down to March, 1864, how many times do you think, from your best recollection, that Col. Green was in there?

A. I do not know as I could change it a great deal from what I have said before. He was in there very often. I could not swear to any particular date or time.

Examination of Lucien Dexter closed.

(S'g'd) LUCIEN DEXTER.

Subscribed and sworn to before me Oct. 14, 1880.

[L. S.] (S'g'd) DORR C. SMITH,
Notary Public in & for Cortland County.

Proceedings adjourned until October 15, 1880, at 10 a. m.

[SEAL.] (Signed) DORR C. SMITH,
Notary Public.

5466 Case called, pursuant to adjournment, Oct. 15, 1880, 10 o'clock a. m.

Parties present: Complainant- appeared by D. L. Hulburt, as counsel, and the defendants by H. Huntington, as counsel, and by agreement case was held open until 2 o'clock p. m., Oct. 15, 1880.

When the defendant calls as a witness LEVETT D. GARRISON, who, being duly sworn, deposes and testifies as follows:

Q. 1. State your name, age, residence, and occupation.

A. Levett D. Garrison; aged 44 years; residence, Cortland, New York; occupation, grocer and confectioner.

Q. 2. How long have *have* you resided in Cortland village?

A. 20 years.

Q. 3. Do you remember of your father buying the store on 5467 the east side of Main street, of S. A. Fairchilds, in the village of Cortland.

A. Yes, sir; he bought in 1862.

Q. 4. Do you remember of his having a driven well made in that store, or there being one made in it?

A. Yes, sir.

Q. 5. How was that driven well made? Describe it as you remember it.

5468 A. The pipe was driven down into the ground, or there may have been a rod driven down first and then the pipe inserted in its place; a pump was attached to this pipe and water obtained from the well for common purposes for some 15 years, when the block was torn down, which was in 1877.

Q. 6. Was this store in the business part of the village, and what was the business carried on there?

A. Nearly so; it was a grocery store at first; afterwards a restaurant and saloon; it was one of the principal grocery stores of Cortland, and was carried on for ten or twelve years.

Q. 7. Was this driven well in plain view of persons who came to the store?

A. It was about 50 feet from the front of the store, on the right-hand side, and was well known by customers generally.

Q. 8. State the year this driven well was made.

A. 1862.

Q. 9. Do you know Col. Nelson Green, who formerly lived
5469 in Cortland near the carding-mill on the road to Homer?

A. I was acquainted with him; I have sold him goods at this store.

Q. 10. About how often would he be in the store?

A. I cannot tell.

Q. 11. Was there any secrecy enjoined or practised by any one in the making or using of this well?

A. No, sir.

Q. 12. Where was this store located?

A. On the east side of Main street, about ⅔ of the way from Court to Mill street.

Q. 13. Do you remember of the house formerly owned by Daniel Bradford? And, if so, where was it located.

A. I do; it was located on the west side of Main street, nearly opposite this store, and 8 or 10 rods from the store.

Q. 14. Do you remember of Col. Green's living in that house?

A. Yes, sir.

5470 Cross-examination:

Q. 15. Will you testify positively that it was not put down in the year 1863?

A. Yes, sir.

Q. 16. Was not this well located in the south corner of your store?

A. It was in the southeast corner of the first room.

Q. 17. Were there any windows in the south side of the store?

A. One directly in front of the well, which opened into an alleyway, and its shutters was sometimes closed.

Q. 18. Can you say that Col. Green was in your store during the year of 1862 or 1863?

A. I cannot swear as to that.

Q. 19. The pump to this well emptied into a sink, did it not?

A. Yes, sir.

Q. 20. Was there anything visible about the well which indicated whether it was a cistern, a dug well, or a driven well?

A. Nothing except a pipe from the pump to the floor.

5471 Q. 21. One not acquainted with the fact could not tell from that whether or not it was a cistern or a dug well with a pipe in it or a driven well, could they?

A. No, sir.

Redirect examination:

Q. 22. Lead pipe was commonly used to which to attach pumps to obtain water from a cistern in those days, was it not?

A. Yes, sir.

(S'g'd) LEAVETT D. GARRISON.

Subscribed and sworn to before me Oct. 15, 1880.
[SEAL.] (S'g'd) DORR C. SMITH,
Notary Public.

5472 Artemas Reed, being duly sworn, testified as follows, for defendant:

Q. 1. State your name, age, residence, and occupation.

A. Artemas Reed; age, 73 years; residence, Tompkins St., Cortland, N. Y.; occupation, carpenter.

Q. 2. How long have you resided in the village of Cortland?

A. 19 years last February.

Q. 3. Do you know James Suggett?

A. I do.

Q. 4. Did he make a driven well for you? If so, state when.

5473 A. It was in May or June, 1863. I took possession of the place the first of April, 1863, and this well was driven in May or June thereafter.

Q. 5. Where was this well constructed?

A. On the north side of Tompkins St., on the north side of the house, east of the wood-house, about 8 feet from either side.

Q. 6. Were you present while Mr. Suggett was making this well?

A. I was present when he commenced, and when I came home to dinner I was present again.

Q. 7. Please describe the method employed by Mr. Suggett in making this well.

A. He drove a bar into the earth, withdrew the same, and inserted a gass pipe with a plug in the end and perforations in
5474 the pipe two feet from the end and drove that down about 3
feet further than he drove the rod. He screwed a pump on top of the pipe and pumped water; well was 20 feet deep, and the dirt was compact about the pipe. This well furnished an abundant supply of wholesome water and was used for all family uses. I used it about 3 years, and it was there in successfull operation when I sold the premises.

Q. 7½. Was any secrecy employed or practiced or enjoined by Mr. Suggett in the construction of this well?

A. No, sir; it was exposed to view to persons being at the rear of the house.

Q. 8. How came you to imploy Mr. Suggett to make this well?

A. I saw him make a driven well the fall before in Mr. Schemerhorn's (J. A.) barn, on the east side of Main St., in Cortland village, N. Y.

Q. 9. Whom did you pay for this well?

A. I bilieve I paid Mr. Suggett; I did not pay Col. Nelson
5475 W. Green, and he was not recognized in the transaction in
any way; I did not have any talk with him about it.

Q. 10. Did you see Mr. Suggett construct any wells after yours was made?

A. I did not.

Q. 11. Did you see a well upon the premises of Mr. Rufus Edwards, of this village, said to have been made by Mr. James Suggett?

A. I did; I could not say when I first saw it, but I helped build his house the same season I put down my well; the premises were on the west side of South Main street, in Cortland village; the well was in the cellar.

Q. 12. Do you know of any other driven wells constructed in this village during the years 1862, '3, '4? If so, please describe their location.

A. I could not be positive about that; I could not describe or define any particular one; driven wells were very commonly talked about at that time.

5476 Cross-examination:

Q. 13. Where was your well, with reference to the street?

A. The house was between the well and the street; a person could not see it while passing on the street.

Q. 14. Who did you hear talk about wells in 1862, '3, and '4, as you say?

A. No one in 1862 that I remember. I think Mr. Suggett said more about it than any man I can name. I could not name any one that talked about — in 1863 or 1863 except Mr. Suggett.

Redirect examination:

Q. 15. How many driven wells were made on the James A. Schermerhorn premises in 1862?

A. The one in the barn I have mentioned and the other was driven just outside of the house, and a pipe under ground extended up into the house, where the pipe was attached. I heard the most said about the well driven in the yard; that could not be seen from the road, and that was the first one made on his premises.

5477–5482 (S'g'd) ARTEMAS REED.

Subscribed and sworn to before me Oct. 15, 1880.

[SEAL.] (S'g'd) DORR C. SMITH,
Notary Public.

Adjourned *sine die.*

5483 David O. Crofoot, sworn as a witness for defendant and being examined by Irving H. Palmer, Esq., counsel for defendant, testifies as follows:

Q. 1. What is your name, age, occupation, and place of residence?

A. My name is David O. Crofoot; my age is 47 years the 8th of October, 1880; my occupation is milling and farming, and my place of residence is Preble, Cortland county, N. Y.

5484 Q. 2. How long have you resided in Preble?

A. I was born in Preble and lived there until the spring of 1849; then I lived in the town of Tully, Onondaga county, N. Y., and in other parts of Onondaga county until the spring of 1858; then I went West, and was in the State of Wisconsin one year. In the spring of 1859 I started for Pike's Peak, Colorado, and from there to California; arrived in California in the fall of 1859, and remained there until the first of August, 1866; left California and returned to Preble September 1st, 1866, and have remained in Preble ever since.

Q. 3. Did you know William E. Tallman in his lifetime?

A. Yes, sir.

Q. 4. Are you acquainted with the farm formerly owned and occupied by William E. Tallman, in the town of Preble; and, if so, how well?

A. I have always been acquainted with that farm, with the exception of the time when I was away, as above specified.

5485 Q. 5. Did you know of the existence of the well on this
farm at which a windmill was erected to pump water for the stock on this farm?

A. I did. I have known the well ever since — returned home, in the fall of 1886.

Q. 6. Were you requested by defendant's counsel to examine and take measurements of this well; and, if so, what did you do in pursuance of such request, and what were the results of the measurements, if any, and when were they made?

A. I made measurements, by request, of this well for the first time July 30th, 1880. I measured from a certain plank that I took to be at the top of the well. This plank is at the southeast side of the well, projects a little ways over the top of the well, and there was about one and a half feet of dirt above it. Measuring from that plank down it was eleven feet and ten inches to the bottom of the well.
About one foot from the bottom of the wall it was two feet
5486 and five inches in diameter, and what I call the middle of
the well measured two feet and seven inches (2 7); across the top two feet and three inches. That is all the measurements I made that day.

Q. 7. Did you go down into the well that day and examine to ascertain whether or not it was cleaned out to the bottom of the wall?

A. Yes; I went down.

Q. 8. What, if anything, did you observe with respect to the bottom of the well, with reference to the bottom of the wall?

A. The dirt was, I judge, dug out a little below where the bottom of the wall was laid. It was scooped out so the middle of the bottom of the well was a little below the dirt at the bottom of the stone-work.

Q. 9. What examination did you make at the base of the wall of the well and of the bottom of the well? Please describe what you did on that occasion.

A. I took down a crowbar and jabbed it down in different parts of the bottom of the well, and stuck it in sideways, & run it down
in the bottom of the well, to see if there was any more stone-
5487 work that I could not see, and also to see if there was any
curb sunk in there. I stuck the bar under the stone-work.

Q. 10. Did you feel with your hands around under the wall of the well? If so, please state the result of your examination on that occasion.

A. As much as I could; I got down to the bottom of the well and felt around under the wall to see if there was any stone-work under the stone that I could see; then I took the crowbar and jabbed down to see if I had got to the bottom & to see if there was any stone-work covered up; I did not find any stone-work below what I could see.

Q. 11. Was there any water in the bottom of this well on that occasion? Did you discover any water in the bottom of this well; and, if so, where, with reference to the earth in the bottom of the well?

A. There was no water in the well on that day while I was there, except a dampness in the bottom of the well; as you went down into the well you would not discover any water; after you had stood there a few moments you raise up your foot and you would discover water in your track; that was all the water I saw; when I raised my foot my track would show a little water where I had stood.

5488 Q. 12. How deep into the earth at the bottom of this well did you thrust a crowbar on that occasion, and how extensively, whether or not in numerous places, you thrust the crowbar into the earth? Please state what you did in this respect.

A. I should say eight or ten times; I did not count them; I run the crowbar down in some places two feet; in some places the bar would work down easily; in some places it would not; I discovered nothing more than usual to hinder the bar from going down; found stones occasionally; in some places I worked the crowbar down only one foot.

Q. 13. Did you run the bar down in different parts of the bottom of this well, and so as to thoroughly probe all parts of the bottom of this well, or not?

A. Yes, sir; I calculate that was sufficient to test all parts of the bottom of the well.

Q. 14. When next were you at this well?

A. On the first day of August last.

5489 Q. 15. What did you then observe in respect to this well with reference to any changes in its appearance?

A. I discovered there was water in it; I heard there was water in the well, and went over to satisfy myself whether there was any water in it, and found quite a little; I let a pole down into the centre of the well and brought it out, measured the distance the water wet the pole, and found it to be seven (7) inches; I did not measure the depth of the well nor go down into it on that day.

Q. 16. Was you at the well on any subsequent occasion? If so, give the date or dates, if you are able.

A. Yes, sir; I was there on the first day of September.

Q. 17. Did you make any measurements on that occasion? If so, please give the results of such measurements.

A. I measured down the sides and down the centre of the well from the plank before spoken of; from the plank down the side to bottom of well I measured twelve feet and six inches (12 6); down the centre of well it measured twelve feet and nine

5490 inches (12 9), and at that time I measured the water in the well at the centre and found it eleven inches in depth; at other times it did not measure as much, according to my measurements; the water varied in depth from centre to the outside of well about three inches; the well seemed to be scooped out at the centre.

Q. 18. When next were you at this well to make any measurements, and what was the results of the measurements you then made?

A. October 4th, 1880, I was at this well, and I measured the depth from the same plank before mentioned, and found the depth to be twelve feet and ten inches; then I took a measurement from the same point Callen said he had measured from; this was from a piece of decayed scantling, stake, or plank on the same side of well and a little above the other plank spoken of, and found it to be thirteen feet and six inches; I then measured from the point Callen said Van Hoesen had measured from; started to measure from the under side of a board laid on the surface of the ground and covering the mouth of the well; found the depth of the well to be from that point fourteen feet and two inches; and the diameter of the 5491 well about six inches above the water, as it then stood, I found to be two feet and five inches (2 5); diameter of well at the middle distance was two feet and seven inches (2 7); at the top of well I found the diameter to be two feet and three inches (2 3); all I could make the depth of water, where I measured it October 4th, was six (6) inches.

Q. 19. Has this well been sunk deeper since you measured it on July 30th last; and, if so, how much deeper is it now than it was then?

A. I make it just one foot deeper than it was when I first measured it on the 30th day of July last. You can stick your pole down two inches in the mud if you want to, and thus make the depth vary that much.

Q. 20. Could this variation have been made in this way on each of the occasions when you measured it as you have stated?

A. I should think likely you could; I think the ground was always soft enough to make a variation of two inches by bearing down on the pole.

(Defendants' counsel here calls the attention of the witness to the section of sheet-iron curb or tube, the copper strainer, and 5492 grist-mill elevator cup, marked for identification by H. J. Messenger, notary public.)

Q. 21. Mr. Crofoot, could this sheet-iron curb or tube, this copper strainer, and this grist-mill elevator cup have been concealed in the earth within this well above the bottom thereof as it now is and beneath the bottom as it was on the 30th day of July last, when you searched and explored the bottom of this well in the manner you have here testified to with a crowbar and you fail- to discover the same on that occasion?

A. I don't think they could have been in there.

Q. 22. Now, Mr. Crofoot, I wish you to examine these articles critically and observe whether or not they bear any marks, dents, or scratches recently made, such as would have been likely to have been produced by striking the same with a crowbar or other pointed metal tool on the 29th or 30th day of July last, or about that time?

5493 A. I don't see; I should say I cannot see any mark on these exhibits showing the impression of a crowbar or other pointed metal tool.

Q. 23. Please examine the tin elevator cup and state whether or not its appearance indicates that it was worn through at the bottom while in use attached to an elevator.

A. It is evident that this elevator cup has been in use and is either worn or rusted through; it is worn through in some places and rusted through in other places; I should say the holes were worn through on the front and bottom and rusted through on the back and corners.

Q. 24. Does the appearance of this elevator cup indicate that it had been imbedded in the earth and immersed in water at the bottom of this well for many years previous to the time when it is alleged to have been taken therefrom, about the last of July last?

A. I cannot say where it was taken from; it has the appearance of having lain in the ground somewhere; I should say from its appearance that it had not lain in the earth any great length of time nor where it was very damp.

5494 Q. 25. Did you observe that the wall of this well was constructed of what had the appearance of being flat field stone for a distance from the bottom upwards?

A. I did.

Q. 26. Did you observe that the wall at the bottom of this well was very irregular in outline and appearance and contracted rapidly from a point from four to six inches above the bottom, thence downward to the bottom?

A. I noticed it was very irregular at the bottom and that it was laid of flat stone apparently, and that is about all I could say about that.

Q. 27. Did you discover any indications that some of the flat stones giving the wall the irregular appearance you have mentioned had been thrust or forced under the bottom of the wall of this well after the same had been stoned up; and, if so, what were they?

A. I shall have to answer the same as I did before; I noticed the bottom of the well was laid up with flat stones and was irregular; how it came so I cannot say.

Direct examination closed.

5495 The witness, being cross-examined *de bene esse* by Mr. HURLBUT, testified as follows:

C. Q. 1. On your examination you referred to a memoranda and your diary for certain dates and measurements. Will you allow me to see those entries?

A. You can have the leaves on which the memoranda are, if you want them.

C. Q. 2. Do you refuse to allow me to see those entries in your diary as to which you have testified to?

A. No, sir; I do not.

C. Q. 3. Have you just torn from your diary certain leaves?

A. Yes, sir; and if you want them you can have them.

C. Q. 4. Why did you tear them from your book when no one asked you to do so?

A. I tore them out for the purpose of giving them to you, if you desire them.

5496 C. Q. 5. Just before you made answer to the last question diden't you state, in presence of this notary, "I don't know whether that's any of your business?" Please answer directly.

A. I believe I made such reply.

C. Q. 6. What did you mean wasen't any of my business?

A. I meant it wasen't any of your business why I tore the leaves out of my diary.

C. Q. 7. Is there any other reason why you tore them out, except what you have stated?

A. Yes, sir; I had as leave you would have the memoranda as not, but I diden't propose you should have the pass book. There were other memoranda on the same page not pertaining to this case which I diden't wish you to have.

C. Q. 8. Please allow me to see those leaves that you have torn from your books here in the presence of the notary.

A. Witness hand- three leaves torn from books to complainants' counsel.

C. Q. 9. Just after you had torn one of these leaves from your diary, here in the presence of the notary, you took out your pencil and made some writing on it. Please state what that writing was. 5497

A. In tearing out the leaf I tore out also the date, and I then put the date, "Sept. 1, 1880," right under the measurement on the same leaf torn out.

C. Q. 10. I notice on the portion of the leaf, "dated 1880, July 30th," that you have torn right through some writing in connection with the writing on this portion of the leaf. Will you allow me to see the balance of it?

A. It was on a portion of the leaf where there were some little measurements about the depth of water in the well one day when I was over there.

(Witness tears from his diary and hands to complainants' counsel the balance of the leaf.)

A recess was here taken until 7½ o'clock p. m., at the office of W. H Shankland, Jr., No. 8, Taylor Hall block, Cortland village, N. Y.

At 7½ o'clock p. m. the parties convened pursuant to adjournment. Present: As before.

Cross-examination of David O. Crofoot resumed:

5498 C. Q. 11. On the portion of the leaf referred to in the last question I find one line underscored. How came that to be done?

A. Well, sir, there were several of us who measured the water in the well, and we did not agree as to the depth of water in the well; we measured 6½, 7, and 8 inches, and we agreed to call it seven inches. The bottom of the well was uneven.

C. Q. 12. Question repeated.

A. I underscored it to call my attention to the difference of our measurements on that occasion.

C. Q. 13. When did you underscore it?

A. At the time when we agreed upon it.

C. Q. 14. Will you examine these memoranda and point out to the notary the measurement of the water in the well which you say you underscored at the time to call your attention to the difference, and state to the court just what words are underscored and the words in the line that is underscored?

A. (Witness points to the paper in question and answers:)
5499 The measurements relating to the weil were made under date
of July 30th. Two days afterwards, on August 1st, the following memorandum was added: "Two days after found 8 inches water in well." (Witness points to the words "8 inches of water.") I do not know as I understand the meaning of the word "underscored."

C. Q. 15. I notice that on the memoranda referred to and in that portion which is quoted first above in your last answer the word "days" has been interlined. When was that interlineation made?

A. That was made at the same time that the rest of the quotation referred to was made.

C. Q. 16. The only words underneath which a line is drawn on the leaf dated July 30th, 1880, are these: "Very little moisture." Is not that so?

A. That is so.

C. Q. 17. What time of the day were you at the well on July 30th, 1880?

A. I could not tell exactly. After we had got the chores done
in the morning we hitched up the horse and drove over
5500 to the well. It was about eight o'clock.

C. Q. 18. You say, "We drove over to the well." Who was with you?

A. A young man by the name of Mr. Robbins—I think A. K. Robbins; Lorenzo Allen, Moses Tallman, and others were there; I think Mr. Wheeler was there, but am not sure.

C. Q. 19. You are related to Moses Tallman, are you not; and, if so, how?

A. I married his oldest daughter.

C. Q. 20. How came you to go to the well on that occasion?

A. At the request of Mr. Suggett, one of the counsel for defendant.

C. Q. 21. When was that request made, and how?

A. It was made the night before we went over there, in person.

C. Q. 22. Where were you when it was made?

A. At our grist-mill, where I live.

C. Q. 23. Did you take your team pursuant to that request and go to the well the next day?

A. I took one horse and went over to the well on the morning of the 30th.

5501 C. Q. 24. How came your father-in-law to go with you?

A. I could not say, only as I surmise.

C. Q. 25. Did you stop for him on your way to the well?

A. My impression is now that he was down there at the mill and got in and went over; I could not swear for certain.

C. Q. 26. Did you ask him to go with you?

A. I did not.

C. Q. 27. How came Mr. Allen to go with you?

A. I suppose he was invited, the same as I was; that is all I know about it.

C. Q. 28. Where did you first meet Mr. Allen that day?

A. On reflection I think Mr. Allen did not ride over with me; I think he came out just as we drove by his house and got into another team and rode over just ahead of us; that is my impression now.

C. Q. 29. How came Mr. Robbins to go with you?

A. I think he was requested to go by the same party that I was; I do not know for certain.

5502 C. Q. 30. What request did Mr. Suggett make of you?

A. He wanted me to go over there and take the measurements of the well.

C. Q. 31. When were you at the well next?

A. August 1st.

C. Q. 32. What day of the week was that, and who was with you?

A. August 1st was on Sunday; Mr. Robbins was with me; I think Mr. Wheeler was not there.

C. Q. 33. At whose request did you go there on that Sunday?

A. My own, was all.

C. Q. 34. How came you to go?

A. I had heard the day before that there was water in the well and I wanted to go over and see and satisfy myself.

C. Q. 35. And did you also hear at the same time that the well had been cleaned out deeper than it was when you were there July 30th?

A. No, sir; I had not.

5503 C. Q. 36. Who told you that there was water in the well at that time?

A. I could not say; it was talked in the mill there by somebody, but I cannot tell who.

C. Q. 37. You heard that it had been cleaned out deeper after you were there on July 30th, did you not?

A. I heard it after August 1st.

C. Q. 38. Who told you?

A. I could not tell that; I could see for myself on the Sunday that I was over there that there had been some stuff taken out of the well, which laid there on the ground—fine gravel and fresh dirt which was damp yet; that I — not notice on the first day that I was there.

C. Q. 39. Have you talked with Hiram Weeks with regard to what he did at this well?

A. I have.

C. Q. 40. Where and when?

5504 A. At my house; I cannot tell the day; he came down there to clean my well; if I was at home I could tell, I guess.

C. Q. 41. How many inches of water did you find in the well on that Sunday—August 1st?

A. That is the memorandum referred to. I put it down at 8 inches.

C. Q. 42. You say you measured it again September 1st. At whose request did you then measure it?

A. I could not say whether it was at Mr. Suggett's or Mr. Palmer's; it was one or the other of them, or both.

C. Q. 43. How was that request made?

A. It was made in person.

C. Q. 44. Had you not been at this well between August 1st and September 1st and made measurements?

A. Only in depth of water; that is all.

C. Q. 45. At about what dates and how many times were you there, as near as you can recollect? I mean between August 1st and September 1st.

A. I think I was there twice between those dates.

C. Q. 46. What measurements did you take, if any, at those times?

5505 A. I did not take any at those times.

Proceedings adjourned until Wednesday, October 6th, 1880, at 9 o'clock a. m., at this place.

WEDNESDAY, *October 6th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: D. L. Hurlbut, Esq., for complainants; Irving H. Palmer, Esq., for defendant.

Cross-examination of DAVID O. CROFOOT resumed:

C. Q. 47. In answer to cross-question No. 44 you say you was at this well between August 1st and September 1st and made measurements of the depth of the water. Please state how deep you found the water when you made measurements as you say between those dates.

5506 A. I say that I made only one measurement of the depth of the water that I recollect of, and that was on August 2nd; that is to say, I made one measurement in August, and that was on Sunday, the first of August; I am mistaken when I say the second of August.

C. Q. 48. Then, as I understand you, your answer to cross-question No. 44 is not correct in this; that you made no measurements of the depth of the water in the well between August 1st and September 1st, although you were at the well during that time two or three times.

A. That is correct.

C. Q. 49. At whose request did you make the measurements on October 4th?

A. At Mr. Palmer's, or Mr. Sugget's request by letter, brought me by Dewitt C. Callen.

C. Q. 50. When did Mr. Weeks clean out your well?

A. I cannot tell without reference to my books, which are at home.

C. Q. 51. State when it was, as near as you can.

5507 A. I think it was in the fore part of August.

C. Q. 52. About how long was it after you was at the well on Sunday, the first of August?

A. I should judge it was some time between the 1st and the 10th of August; I am sure it was after the 1st of August.

C. Q. 53. You say you have talked with Weeks in regard to his cleaning out this well at the time he cleaned out your well; have you talked with him at any other time?

A. I think I talked with him about it not a great while ago—about a week or two; I think I spoke to him about it when I went to engage him to clean out my well; thos- are all the times I have ever spoken with him about it.

C. Q. 54. When did you engage him to clean out your well?

A. I cannot say for certain; I think it was in the fore part of August; think it was after the 1st of August (Sunday) and some time during that week; think it was on Monday, August 2d, but am not sure.

5508 C. Q. 55. You say you was at this well two or three times in August after the 1st day of that month. Why were you there?

A. By no request of any one. I was at the village of Preble when Mr. Parsons brought up a certain pump. The remark was made by some one that they had been pumping out that well. On my way home I hitched my horse to the fence and went over there. I was all alone. I went with the expectation of finding the well pumped out. I arrived there and found water in the well and nothing to show that any water had been pumped out. Then I went home.

C. Q. 56. What interest did you have in going to the well at that time?

A. I think I went to see if it looked as it did when I went there the first time.

C. Q. 57. Why did you care to know anything about that?

A. I understood the well had been lowered some or dug out some. There had been such a report.

5509 C. Q. 58. Why didn't you measure the water on that occasion?

A. I didn't have interest enough in it to repay me for the trouble.

C. Q. 59. But still you had interest enough in it to hitch your team to the fence and walk over to the well, a distance of from forty to sixty rods, on that very occasion, did you not?

A. There had been a good deal said about the well, and I had interest enough to go to see the well once more dry, as I expected to find it from what I had heard.

C. Q. 60. Why did you desire to see it dry?

A. I had seen it once dry and made a measurement of it. After the report was circulated that they had dug it out I went to see it again, expecting to see it dry; went to see how it appeared after it had been dug out, and to satisfy myself as to the appearance of the well after being dug out.

C. Q. 61. Then you went to see whether the well had been dug out deeper, did you not?

A. Yes, sir.

5510 C. Q. 62. Did you find it had been on that occasion?

A. I could not say. There was water in it, but I didn't stop to measure it, as I said before.

C. Q. 63. You went there on that occasion to see if the well had not been cleaned out deeper, as you say. Now, please state why you did not ascertain by measurement or otherwise.

A. I had not interest enough in it to pay to go to the barn, thirty or forty rods, to get a pole to measure it with.

C. Q. 64. You say you was at the well again during the month of August and after the 1st. On what occasion was that?

A. I cannot tell exactly; think it was on a Sunday. We were walking on the railroad track and took a notion to go over there. Mr. Robbins, our miller, was with me.

C. Q. 65. Why did you go over there on that Sunday?

A. For curiosity's sake and to take the walk.

5511 C. Q. 66. What curiosity had you in it?

A. The report was circulated that there had been men there at different times doing something and I wanted to see what they had been doing.

C. Q. 67. Did you find any difference in the well on that occasion from what it was when you was there on the day when you met Mr. Parsons with the pump?

A. I observed no difference.

C. Q. 68. Where did you find that pole that you measured the water in the well with on August 1st?

A. In Mr. Wheeler's barn.

C. Q. 69. Did there appear to be plenty of water in the well on the Sunday when you went there with Mr. Robbins, after August 1st?

A. There was water in the well; I could not tell how much.

C. Q. 70. Where did you get the crowbar that you used at the well on July 30th?

A. We took it with us from our mill.

5512 C. Q. 71. What time of the day did you go up to engage Weeks to clean out your well?

A. Think it was some time in the forenoon; it was before dinner, anyway.

C. Q. 72. At whose suggestion did you take your crowbar to the well?

A. Think it was either at Palmer's or Suggett's suggestion; don't remember which.

C. Q. 73. When did you receive or see the letter that Mr. Callen handed you requesting you to go and examine this well on October 4th?

A. Cannot tell whether it was on the 4th day of October or on the third of October; think it was on the third.

C. Q. 74. Where was you when Callen showed you that letter, and what time in the day was it?

A. I cannot state positively; think it was in the fore part of the day.

C. Q. 75. That letter was addressed to Callen, was it not?

A. I think it was. I just run it over and handed it back to him.

5513 C. Q. 76. Did you follow out implicitly the instructions of that letter?

A. Yes; I made measurements as instructed in that letter.

C. Q. 77. How many were at the well at the time you made measurements as instructed by that letter?

A. Four besides myself are all I can think of. This was on October 4th. There were present De Witt C. Callen, J. F. Wheeler, M. T. Tallman, and Hiram Weeks.

C. Q. 78. How came Tallman and Wheeler to go?

A. I cannot say; you will have to ask them.

C. Q. 79. Did either of them go with you? And, if so, state.

A. None of them went with me, nor did I go with them.

C. Q. 80. Who did the letter request to be there?

A. I know the letter had my name in it and requested the one to whom the letter was written to get some of the neighbors.

C. Q. 81. Did it not request Mr. Tallman to be there?

5514 A. It is my impression it did, and I am not sure but it had all the names in it, but I would not swear to it.

C. Q. 82. Did the letter state why it was desired you should go there and take measurements? Please state what it said on that subject.

A. I don't think it stated why I should go. It wanted me to make measurements, and that is all I can state.

C. Q. 83. What time did you go to the well and take measurements in pursuance of the request contained in that letter?

A. Not far from seven o'clock in the morning.

C. Q. 84. Will you swear you did not get to the well before seven o'clock that morning? Please answer directly.

A. I should say it was before seven o'clock; I did not take my time out to see; it was after I had done my milking and chores, but before I had my breakfast.

5515 C. Q. 85. Had not Callen and Weeks arrived at the well and taken out some water before you arrived there?

A. Callen and Weeks were there when I got there, but I cannot say as to their having taken out any water.

C. Q. 86. Did not you understand that Mr. Van Hoesen and Mr. Aldrich were to be there that morning and take measurements in connection with Callen and Weeks, pursuant to a request made by complainants' counsel here in Cortland?

A. I did not understand it so.

C. Q. 87. Did you understand anything in regard to an arrangement that Van Hoesen and Aldrich were to be there? Please answer directly.

A. No, sir; if there was anything of the kind I did not know about it.

C. Q. 88. Was anything said there at the well on that occasion about Van Hoesen or Aldrich being there?

A. Not in my hearing, sir.

5516 C. Q. 89. Was you there all the while that Moses T. Tallman was there, and didn't you come away from the well with him?

A. I got there before Tallman did, and left before he did. Think I was at the well fifteen (15) minutes. I got out into the lot a ways, and he halloed to me, and said if I would wait a moment I could ride with him. I started away first, and waited for him to come up, and rode home with him.

Recess was here taken until half past one o'clock p. m., at this office.

At half past one o'clock p. m., the parties met pursuant to adjournment.

Present: As before.

Cross-examination of the witness, David O. Crofoot, resumed:

C. Q. 90. Mr. Crofoot, do you swear positively that there was not an arrangement made whereby Mr. Callen, Mr. Weeks, Mr. Wheeler, and Mr. Tallman and yourself were to go and measure that well very early on Monday morning, going before you had even had your breakfast, in order to get through a little after seven

5517 o'clock in the morning?

A. I will swear I did not arrange to meet any particular parties there early on Monday morning to measure the well; there were to be some of the neighbors there, as I understood it. I expected Mr. Callen there, and I supposed he would also have Mr. Tallman and Mr. Wheeler there. I told Callen, when he gave me the line, that I didn't think I should be able to come over, as we expected to commence making cider the next morning. The help we had engaged were green hands at it and would not know how to commence. From that I had made up my mind, as I told him, that

I should not go over. While I was milking next morning the Callen boy came into the stable where I was and said his father and Mr. Weeks were over at the well and wanted me to go over there. Callen had sent his boy over with his horse and wagon after me. I replied that my breakfast was about ready, and I could not go just then. He said his father wanted me to go right over, as Mr. Weeks had to be in Cortland at a certain hour. I finished milking, 5518 got into his wagon and went over, and that is all the arrangements there were with me. I had arrived there but a few minutes before Tallman and Wheeler came. They followed right along.

C. Q. 91. Didn't Callen's letter state any time you were to examine the well?

A. I couldn't say. I didn't examine the letter closely. It might have done so.

C. Q. 92. How far do you live from the well?

A. By the road it is a mile and a quarter; across lots it is a short mile.

C. Q. 93. Now, it being only four days ago that you read that letter, I ask you to state the contents of it.

A. I will state I did not read all of that letter. I only glanced at it, and handed it back. It was poorly written. I made 5519 out enough of it to know that they wanted me to make some measurements, and that is about all I made out of it. I will state that I should think there was only one sheet of commercial note paper.

C. Q. 94. Your recollection of what that letter contained is very indistinct, is it not?

A. Yes, sir; it is.

C. Q. 95. Why did you take the crowbar with you when you went to the well on July 30th?

A. In order to work into the bottom and under the stone-work as much as I could. It was reported they were hunting for an iron curb in there, and I wanted to feel around the bottom of the well as much as I could. Mr. Palmer or Mr. Suggett, or both, said they were hunting for something of that kind and they wanted me to take a crowbar over there; I mean to say that Palmer or Suggett said that the opposite party were hunting for something in the well.

C. Q. 96. Then your only object in taking the bar was in order to ascertain whether or not there was an iron curb down in the bottom of the well, was it not?

5520 A. They requested me to take over the bar and punch around in different parts of the bottom of the well, and also straight down in different places, to ascertain whether I could strike anything that felt or sounded like iron. I did so, but did not find anything. I took the bar over to ascertain whether there was an iron curbing there or not.

C. Q. 97. You say the bottom of the well was soft, and you did put the bar down, in some places, two feet, or thereabouts; did you find any difficulty in putting the bar down to that depth when you did not strike stone or something else?

A. The bottom of the well was not very soft; in some places I could work the bar down two feet; in other places only one foot or more.

C. Q. 98. In some places you struck something hard, when
5521 you could work the bar down only one foot or more, did you not, and you thought it might be stones?

A. I did, sir.

C. Q. 99. When you didn't strike something you thought might be stones could you put the bar down quite easily for two feet?

A. I won't say quite easily. It required a little labor to put it there.

C. Q. 100. Did you observe any water in the holes made by the bar?

A. Yes, sir; the water would settle in the holes made by the bar, and would rise to within an inch of the top of the dirt in the bottom of the well.

C. Q. 101. You have spoken of this well being walled up with flat stones for some distance from the bottom upwards; on what occasion was your attention first called to that?

A. I think my attention was called to it the same time I went down with the bar, but I will not swear positively. I will now swear positively that my attention was first called to the flat stones when I went with the bar. The water was then out, and
5522 my attention was called then to the flat stones.

C. Q. 102. Did you ever take a measure and measure accurately how far those flat stones extend upwards from the bottom of the well?

A. No, sir.

C. Q. 103. On the memoranda contained on a portion of the leaf you tore from your book, on which you wrote "Sept. 1st, 1880," after you had torn it from your book, I notice you have torn through some writing; will you please produce the balance of that leaf, that I may see what is thereon contained?

A. I did not tear through any writing, and I will not produce the balance of the leaf; it has no connection with this case.

C. Q. 104. Do you refuse to let me see the balance of that leaf?

A. Yes, sir; I do.

C. Q. 105. Do you refuse to let me see the balance of the leaf that contains the date which you copied?

A. Yes, sir; I do.

5523 C. Q. 106. All the dates and measurements given by you on your direct examination were taken directly from your memoranda as you gave your testimony here to the notary, were they not?

A. I think not; I think there is one measurement of water made by Perry Haynes and I; that I recollect from memory; I think Haynes and I made the water measure more than at any other time when I measured it; that is all the measurements and dates that I now remember that I did not take from my memoranda.

C. Q. 107. When did you and Haynes make that measurement?

A. I cannot say positively; think it was in August some time; probably after the 15th of August, but am not sure.

C. Q. 108. Was it before the first of September?

A. Yes, sir; I should judge two weeks before September 1st.

C. Q. 109. Then you did not measure the water when you was there on the 1st of September, did you?

5524 A. I should say not, because I have no memorandum of it, and I have no recollection of it, either.

C. Q. 110. Haven't you destroyed the portion of that leaf remaining in your diary since you tore out the portion on which is contained the date "Sept. 1st, 1880?"

A. Yes, sir; I have; I had a memorandum there which I did not care to have you or any one else see, and I threw it in the fire; it was my own matter.

C. Q. 111. What was it a memorandum of?

A. Of privacy.

C. Q. 112. State what that memorandum contained.

A. That I refuse to do.

C. Q. 113. When did you burn it?

A. Last evening some time, I think it was.

C. Q. 114. Why did you burn it?

A. Because I wanted to get rid of it.

C. Q. 115. Why did you want to get rid of it?

A. Because I didn't want it to be seen.

5525 C. Q. 116. Why didn't you want it to be seen?

A. Because it was private, and I didn't want it to be seen by others.

C. Q. 117. Now, I ask if you will allow me to see the book, that I may see where these leaves have been torn out?

A. I guess there is nothing in the book now but what I had as soon you would see. I will look at it and see. You may take the book if you want it and if you will return it to me.

(The witness here produces and hands the book in question to complainants' counsel, who examines the same.)

C. Q. 118. I see that you have torn a piece from the top of the leaf which is dated July 30th; why did you tear that off?

A. I am engaged in the milling business. I bought a car-load of corn, and sold it out to the farmers. I often make memoranda in this book, and many times tear them out and give them to the farmers for them to keep as memoranda. I tore the leaf referred to in your question in the same way and for the same purpose.

5526 C. Q. 119. Is there a leaf in your memorandum book that is torn across the top or bottom except one, and that one you tore while the notary was taking the answer to the last question; is not that so?

A. There is another leaf torn, and torn at the same time as that portion was torn off that is above referred to; also other leaves have been torn out entire.

C. Q. 120. On that portion of the leaf you have torn from your book on which you have written the date "Sept. 1st, 1880," have not certain figures there been changed?

A. There have been two figures changed there.

Complainants' counsel here offers in evidence the mutilated leaves as they were torn from the witnesses' book, there being four separate pieces, dated Sept. 1st, 1880, 1880, July 30th, and October 4th, 1880, and one piece without date.

5527 The same are received in evidence and marked "Complainants' Exhibit No-. 1, 2, 3, & 4, W. H. Shankland, Jr., notary, October 6, 1880."

Redirect examination of the witness:

R. D. Q. 1. In your answer to cross-question No. 121 you state that two figures on the memorandum, dated Sept. 1st, 1880, have been changed; please explain how that change came to be made.

A. There were two or three of us who measured the well on that occasion, and by measuring with the pole on the different sides of the well we could make variations of from one inch to one and a half or two inches; I put my pole down and measured twelve 5528 feet and five inches; others measured twelve feet and six inches; I then changed my figures twelve feet and six inches; this was at the side of the well; then I measured the centre, and made it twelve feet eight inches and a half; they measured it a- found it twelve feet and nine inches; they thought I was getting it too fine, and I changed my figures to twelve feet and nine inches.

R. D. Q. 2. Where do Mr. Wheeler, Mr. Callen, Mr. Tallman, and yourself live, with reference to this well in question and with reference to the residences of Mr. Matthias Van Hoesen and Seth Aldrich?

A. Callen lives nearest, I should think, and about one-quarter of a mile and in a southwest direction from the well; Wheeler lives about the same distance and in a southeasterly direction from the well; Tallman lives a scant mile and southeast from the well; I live about one and a quarter miles and southeast from the well; Van Hoesen lives in Preble village, which is a scant mile north of the well; Aldrich lives about twenty rods north of Van Hoesen; 5529 Van Hoesen lives a mile north of Callen; Wheeler lives a mile and a half southeast; Tallman lives two miles southeast, and I live two and a quarter miles southeast.

R. D. Q. 3. Did Callen in coming from his house to yours by the highway necessarily pass by the residence- of Mr. Wheeler and Moses T. Tallman, and do Callen, Wheeler, and Tallman live on the same east and west road?

A. Yes, sir.

R. D. Q. 4. Are Callen's, Wheeler's, and Tallman's residences among those nearest to this well in question?

A. I should say they were; there is but little difference between Van Hoesen and Tallman, and I should think Tallman's is the nearer of the two.

R. D. Q. 5. Did you see Mr. Parsons on the morning of October 4th last; and, if so, where, with reference to this well?

A. I did not see him at all on that day that I remember.

R. D. Q. 6. When does the first south-bound train on the
5530 Syracuse and Binghamton R. R. pass your house in the
morning?

A. The first passenger train in the morning passes about half past eight; I don't know the precise time.

R. D. Q. 7. When did you leave this well on October 4th after making the measurements to which you have testified, with reference to the passage of this train?

A. I had got home, eaten my breakfast, and got to work before the train passed, I should say, over an hour.

R. D. Q. 8. Did Weeks show you a flat stone on the southeasterly side at the very bottom of the wall which projected slightly beyond the face of the wall which he claimed to have uncovered when he cleaned out this well? If so, describe its appearance and location.

A. I don't recollect that he did.

R. D. Q. 9. Have you observed the heighth of the water in the wells and streams in the town of Preble during the period from the
29th day of July to the 4th day of October, 1880; if so, what is
the comparative heighth of the same during the period named
5531 this year and similar periods in former years?

A. I can only judge from our mill-stream and my own well; my own well gave out earlier this year than it has any time before since I have lived there; I have lived there since the spring of 1870; my mill-stream has been lower, up to about two weeks ago, than any other year since I have been there.

R. D. Q. 10. Mr. Crofoot, please observe the leather string on the neck of the copper strainer which is exhibited to you here, and say, from your experience, whether or not it appears to have been covered with earth and submerged in water as it would be in the bottom of this well in question for any considerable length of time.

A. I should judge it had lain in water some, but not in dirt; I
should not think it had lain in water a great length of time.

5532 R. D. Q. 11. Please explain how the line drawn under the
entry in your memorandum of the measurements of this well
under date of July 30th, 1880—below that and above the one made
two days later, as you have testified—came to be made.

A. I made the line to separate the two memoranda, which were made at different times.

On his recross-examination the witness testified as follows:

Recross 1. I show you the sheet-iron curbing referred to in your testimony and ask you if it does not now have the appearance of having been submerged in water and earth for a great many years—say fifteen or twenty years.

A. If it had been in hard water I should think it would not have lasted so long, but if in soft water it might have lasted longer. I should say that whether it is submerged in hard or soft water it would last longer than if exposed to the air and water.

5533 Recross 2. I show you the tin elevator cup and the copper strainer referred to and ask you if you will swear positively that they could not have been submerged in water in the bottom of that well for the last fifteen or twenty years and have the same appearance they now have; please answer directly.

A. I should say they could not.

The witness desires to correct a statement made by him in the course of his examination as follows:

"Where I said that A. K. Robbins went to the well with me on a Sunday, August 1st, 1880, I should have said that W. R. Robbins went with me."

(Signed) DAVID O. CROFOOT.

Subscribed & sworn to before me this 6th day of October, A. D. 1880.

[L. S.] W. H. SHANKLAND, Jr.,
Notary Public.

Proceedings adjourned *sine die.*

[L. S.] W. H. SHANKLAND, Jr.,
Notary Public.

5534 Complainants' Exhibit No. 1. W. H. Shankland, Jr., Notary. October 6, 1880.

From top of well to bottom, on side, 12 ft. 6 inches.
From top of well to bottom, in center, 12 ft. 9 in.
Sept. 1st, 1880.

Complainants' Exhibit No. 2. W. H. Shankland, Jr., Notary. October 6, 1880.

Depth of well from top to bottom, 11 ft. & 10 inches.
Across the bottom, 2 ft. 5 inches.
" middle, 2 ft. 7 inches.
" top, 2 ft. 3 "
Very little moisture.
July 30th, 1880.

Complainants' Exhibit No. 3. W. H. Shankland, Jr., Notary. October 6, 1880.

8 inches water in well.

5535 Complainants' Exhibit No. 4. W. H. Shankland, Jr., Notary. October 6, 1880.

Depth from board down, 12 ft. 4½ inches.
Depth of water, 6 inches.
" from where Callron measured, 13 ft. 6 inches.
Across the bottom, 2 ft. 5 inches.
The middle, 2 ft. 7 inches.
Top, 2 ft. 3 inches.
Depth from surface, as now stands, 14 ft. 2 in.
Oct. 4th, 1880.

5536 United States Circuit Court, Central Division, Southern District, Iowa.

I, Edward R. Mason, clerk of said court, do hereby certify that the volumes marked complainants' testimony, vols. one and two, and respondent's testimony, vols. one, two, and three, contain full, true, and complete copies of the testimony introduced on the final hearing in a certain cause in said court, wherein Wm. D. Andrews *et al.* were complainants and George Hovey was defendant, as full, true, and complete as the originals of the same now remain on file and of record in my office, except certain original exhibits which are certified up per order of court.

Witness my hand and the seal of said court, at the city of Des Moines, in said district, this 16th day of October, A. D. 1883.

[Seal U. S. Circuit Court, Southern District Iowa.]

EDWARD R. MASON,
Clerk U. S. Circuit Court, Central Division,
Southern District of Iowa.

5537 ZACHARIAH SMITH, after being duly sworn in the above-entitled case at the time and place above mentioned, testified as follows:

Examined by Mr. FRANKLIN:

5538 Q. What is your name, age, occupation, and residence?

A. Zachariah Smith; age, 75 last February—the 15th day of February; occupation, machinist; Fentonville, Genesee county, Michigan.

Q. Where did you reside in 1861?

A. Cortland county, in the town of Cortlandville, and village of Cortland, New York.

Q. What was your occupation at that time?

A. Machinist; I was in a machine shop.

Q. Where and by whom were you employed?

A. Well, I was employed by Chamberlin and Benton in 1861; it was called the Freer shop.

Q. On what street was the shop; what name was it known by?

5539 A. Port Watson street.

Q. Please state what kind of business was carried on in that shop.

A. Well, it was a general jobbing shop; they done everything most; some new work and some repairs; it was a foundry and machine shop attached together; we done general job work—everything that come along most—besides building some new work—some new wheels and some water wheels.

Q. What was your position in the shop?

A. I was foreman there.

Q. Did you know one J. J. Haben who worked in Freer's shop?

A. Yes, sir.

Q. What was his trade or occupation?

A. Oh, he was what we call a tinner; he worked at tin business and he was a coppersmith and he done some work at the copper business, but we called him a tinner.

Q. Was he a proprietor?

A. No, sir.

Q. Foreman or workman?

A. He was pretty much all the help they had in the shop,
5540 excepting one or two of his boys that used to work there, and
he had a man in the shop with him a spell, but he done most
of the work in the shop—he and his boys.

Q. Had you knowledge of the different work on which he was employed?

A. Oh, yes; because I was in the shop most every day; quite often, at least.

Q. Do you remember the organizing of the 76th Regiment of Volunteers from Cortland in the fall of 1861?

A. I do.

Q. Where was their camp ground?

A. It was on the old fair ground, about half a mile, a northwest course, from Cortland village; a trifle over, perhaps.

Q. Who was the colonel of the 76th regiment?

A. Well, Col. Green and then Col. Carmichael; I believe Carmichael went away with the army.

Q. I speak with reference to the year 1861.

A. I suppose Green was col. then; I suppose so; I never saw his commission.

Q. Did you know Byron Mudge?

A. Yes, sir.

5541 Q. Did you understand him as being connected with the
regiment?

A. Oh, yes, sir.

Q. During the time the regiment was on the fair ground, have you any knowledge of the preparation of pipe for making wells to be taken into the army by the regiment?

A. Yes, sir; I do; I knew there was a pipe made and said to go for that purpose—to go into the army for wells to drive down, made in short pieces.

Q. What kind of pipe was it?

A. What we call gas pipe; iron pipe; gas or water—it was used for both purposes in the place there—or steam.

Q. By whose direction was it prepared?

A. Byron Mudge.

Q. Was it all one diameter or different diameters?

A. All of one size.

Q. What was its inside diameter?

A. I think it was an inch and a quarter; inch-and-a-quarter pipe we called it.

Q. What was the length of the pieces?

A. Well, I could not say; I should judge about three feet;
5542 calculated for a box or trunk; I think he said for his trunk,
and he had it cut just long enough to go in.

Q. Why was it made in such short pieces?

A. So he could carry it, I suppose; so that it would go in the box or trunk and be put together when he got there.

Q. Were they all of one length?

A. About the same length.

Q. How many pieces were there?

A. I could not say how many. I should judge, though, by the depth of wells we had in that section of country there was about seven or eight pieces. I should think probably there might have been eight, but I could not say the exact number.

Mr. **Stuart**: You judge from the depth of the wells you had there?

A. Yes; that would make it about 24 or 25 feet. He could leave off or put on more at any time.

Q. Were they arranged to connect together; and, if so, by what means?

A. By what we call couplers. They were put together by couplers—screwed together.

5543 Q. What was their entire length?

A. About 25 feet—would be if they were three feet long. I could not say what their length was exactly, because I don't remember now the number of pieces.

Q. Who prepared this pipe for Byron Mudge?

A. I prepared it myself—that is, I had charge of the shop, and I done most of the work myself.

Q. What did you do to it?

A. Well, we cut a screw on each end of the pipe. In the first place, I think we made the couplers. They were forged and a screw cut through the center.

Q. Who was this pipe prepared for?

A. Why, Mr. Mudge, of course. He was the man that ordered it.

Q. Was Byron Mudge present during any part of the time while you were doing this work; and, if so, how much of the time?

A. I could not say how much, but I should think, perhaps, one-quarter or one-third of the time. He was there when I was fixing the pipe and getting it ready. He was quite a hand to take hold and help.

5544 Q. Did Byron Mudge make any statement to you as to how the pipe was to be used? If so, please state.

A. He said he was going to take it into the army with him, so that when they camped he could put down a well and get water for the regiment. That was about the amount of the language. It might not have been worded so, but it amounted to about the same thing.

Q. From his explanation did you understand that this pipe which you prepared was to be driven directly into the ground without any larger pipe being used outside of or around it?

A. Driven right into the well just as it was—right into the ground.

Q. How was the end of the pipe arranged for driving into the ground?

A. There was a point put onto the bottom of the pipe, drawn down to a point; I don't recollect whether it was square or round; I think we generally made them round, pointed right off round.

Q. How was it connected with the pipe?

5545 A. It was put into the lower end of the *of the* pipe; I think we generally used to shrink them in; I don't know for certain whether this was or not, but we had at the lower end of the pipe a pin put through and riveted in; that was the way we fastened it.

Q. With this point pierced into the end of the pipe, how was the water to be admitted into the pipe?

A. Above the point there was the hollow pipe that we have been speaking about, and holes drilled into the pipe from the lower end up, I should think, about 15, 16, or 18 inches; somewhere along there; from the bottom of the pipe we drilled holes once about in an inch about 18 inches from the bottom; I don't recollect the exact distance, but I think about 18 inches.

Q. How many holes were there, and about what was the size?

A. The size was about a quarter of an inch; we were not very particular in getting them. Sometimes the drill would get worn off, and perhaps the next hole would be a little larger; nothing very essential about the holes being the same size, but about a 5546 quarter of an inch is what we calculated. I think there was about 15 in a row; we were not particular about it; we generally took them off by guess; sometimes 15, sometimes 16, and sometimes 14.

Q. How many rows were there?

A. Well, I think there was eight, but I will not be sure.

Q. How was the water to be drawn from the pipe?

A. By a pump.

Q. How was it attached to the pipe?

A. Generally screwed on at the top.

Q. Do I understand that the pump was to be attached directly at the upper end of this one-and-a-quarter inch pipe and that this pipe was to be the suction pipe of the pump, and at the same time to form the lining and body of the well?

A. Why, the pump went onto the top of the pipe; it would not draw without. The pipe went down into the ground to the water, or they could not get any water.

Q. When so connected is the pipe made air-tight throughout its entire length?

5547 A. We desired it to be air-tight; it had to be tight in order to draw and not leak back. Yes; we designed it should be tight.

Q. Was the point made and the holes drilled into the pipe at about the same time that the remainder of the pipe was prepared?

A. Yes; about the same time. The job was done right along as fast as we could do it conveniently—the drilling and fitting the pipe.

Q. Who, if you remember, other than Byron Mudge and yourself, was present and assisting while this pipe and point was being prepared?

A. I cannot tell you exactly who was there; we had some help in the shop. Mr. Gourley was about there; whether he worked in the shop at that time or not I don't know; I don't think he did; but he had been years before at work in that same shop, and he was in frequently and did little jobs for himself and some of the neighbors.

Q. Was there or was there not any larger pipe made for Byron
Mudge at or about that same time, in the Freer shop, of tin,
5548 galvanized iron, or zinc, to be taken into the army with the
pipe that you have testified to being prepared?

A. No other pipe that I know of, only that size, or no tin pipe that I know of, or galvanized pipe.

Q. Would you or not, in your position as foreman, have known if there had been such pipe prepared in the Freer shop for that purpose?

A. I should have been pretty apt to have known it, because I was there all the time almost in the working hours.

Q. Did or did not Mr. Mudge, at any time while there with you, ever speak to you about having any such tin, galvanized iron, or sheet-iron pipe prepared to take in the army with this one-and-one-fourth inch pipe?

A. Not to my knowledge, he did not.

Q. Was this pipe packed for transportation; and, if so, how, and in what way, and what was it packed in?

A. Oh, I don't know how it was packed or when it was packed; nothing about the packing part; that was done out of the shop, I suppose; it was not done there to my knowledge.

5549 Q. Give the date when this was done, as near as you can.

A. It was in 1861, I am pretty sure, at the time the army was there camped.

Q. Can you give the time, in the year 1861; about what time?

A. I think it was in the fall of the year; cold weather, I believe; I am pretty sure it was.

Q. Was there any lead pipe prepared to be used or any to be used inside the one-and-one-quarter inch pipe that you prepared?

A. No; not as I know of.

Q. Was the one-and-one-quarter inch pipe of plain iron or was it galvanized?

A. A plain iron.

Z. SMITH.

Cross-examined by Mr. STUART:

Q. When did you leave Cortland?

A. 8 years ago next March; 7 years ago last March.

Q. Have you ever given any testimony in suits involving the validity of this patent before?

A. No. Yes; I was called on once before by Mr. Mudge's brother-in-law. I could not think of his name just now.

Q. Sugget?

5550 A. No, sir; he was another man.

Q. Then you have given your testimony before?

A. Yes, sir.

Q. In regard to this matter of construct- a well?

Ans. Yes, sir.

Q. Where did you give your testimony?

A. I could not tell you what year; that was in Cortland, I know, before Mr. Charles Foster.

Q. Did you testify in regard to the construction of this pipe then and point then?

A. I believe the question came up then was about the hole being drilled in the pipe; I think that was about the question they asked me.

Q. Did you then give a statement of how this pipe was constructed?

A. Oh, I don't know as I did, for everybody knew.

Q. Who procured your attendance here—who had you talked with about it?

A. Coming here?

Q. Yes; anybody in Fowlerville or Howell?

A. No, sir.

Q. Who have you talked with about this matter recently before you came here to-day?

A. Not anybody in particular, as I know of.

5551 Q. Anybody in general?

A. Nothing more than I have said a good many times, that I made the first pipe I believe that was ever made in the United States for putting down in the ground; and I think so now.

Q. At the time that you had these conversations with Mr. Mudge was it not a fact that you understood that his well was first to be bored and then the pipe put down into the hole?

Ans. No, sir.

Q. No such understanding as that at all?

A. No, sir; there was not any.

Q. Was the point that you made to that pipe round or sharp?

A. Well, it drawed down to a point.

Q. Then it was sharp and not round?

A. It was sharp; it might have drawed down four square and then be sharp.

Q. I want to know just how it was.

A. I cannot tell you exactly.

Q. Then you cannot tell what kind of a point was made?

A. No, sir; I cannot tell precisely just how the point was made, whether round or square.

5552 Q. What did you drill these holes in the pipe with? Did you drill them or punch them?

A. Drilled them all.

Q. Wasn't there a swelling made on that pipe above the point—a ball on the pipe or enlargement?

A. No, sir.

Q. There was not anything of that kind made at all?

Ans. No, sir.

Q. There was 8 rows of holes, was there?

A. I think there was. We generally put in 8 rows, I believe.

Q. You generally put in. You never had made any before this, had you?

A. Why, yes; hundreds of them I was going to say.

Q. Before you made this for Mr. Mudge?

A. Yes, sir. Drilled, I don't know, but 100 of them.

Q. Who for?

A. Drilled for Sugget and for Mudge. This was merely a thing after it got in use and we found out it would work.

Q. I thought you were testifying in regard to the first one that was ever made?

A. No, sir.

5553 Q. This was not the first one?

A. No, sir.

Q. How long before this had you manufactured them?

A. I could not say; some two years, perhaps.

Q. Two years before this?

A. I should think so. Mr. Mudge experimented on them some time, and they had a good deal to say about Mudge's driving a bar of iron in the ground to get water, and laughed at him about it, and thought it was all stuff.

Q. Then Mudge had before this used a bar of iron to drive into the ground and then put in the pipe?

A. No, sir; not that I ever knew of.

Q. When they spoke about his driving a bar of iron into the ground they meant the pipe, did they?

A. Yes, sir; they thought it was iron.

Q. Were these pipes in general use? Was there a good many of them in use around Cortland then from 1859 to 1861?

A. Yes; some, but not as many as there is now.

Q. But there was a good many of them in use from 1859 to 1861?

5554 A. Yes, sir; they had one on the fair ground.

Q. Mr. Smith, you had seen pumps connected with wells before that a good many years?

A. Yes, sir; I made 3,000 of them myself—that is, made in my shop.

Q. Was there anything different in the connection of these pumps to be connected with the pipes and the connection of any other suction pump—they were all air-tight?

A. Oh, yes; they had to be in order to draw and have it stay out. You can draw with a little air-hole, but you put a hole in as big as a pin and it will run back.

Q. So there was nothing different from the application of this pump to the pipe than there was from the application to any other pump?

Ans. No, sir.

Q. All the difference was it had to be air-tight?

Ans. Yes, sir.

Q. I mean the application of the pump to the well.

A. I think there was some had brass tubing that we used to solder on, but not but a very few of them, because they would run but a year or two and come off.

5555 Q. Any pump has got to be air-tight in order to pump?

A. Yes; in order to work well.

Q. Mr. Smith, if you had made these pipes, numbers of them, for a couple of years previous to this you would have begun the manufacture of these pipes about 1859?

A. I should think likely about that time; I could not say; it is a good while ago.

Q. Now, between 1859 and 1861 about how many of these pumps did you make?

A. I could not tell you.

Q. Three or four hundred?

A. Oh, no; not a quarter of that.

Q. One hundred?

Ans. No.

Q. 75?

A. I should think perhaps I might have made 25, and maybe more; I don't know; I could not say; I know we made quite a number of them; how many I could not say nothing about it.

Q. Who did you make the first one for—for Mr. Mudge?

A. Yes, sir; drilled a pipe; we didn't make the pump; the pumps were what we called the Seneca Falls pump that we generally used there.

Z. SMITH.

5556 Redirect examination by Mr. **Franklin**:

Q. You say you made pipe for Mr. Mudge before the pipe was prepared that you testified to?

A. That went into the army?

Q. Yes.

Ans. Yes, sir; before that.

Q. How long before had you prepared the first one for him?

Ans. How long before I made this pump to go into the army that I made the pumps for him?

Q. Yes.

A. Oh, I don't know how long; it might have been a year and it might have been more; I guess, perhaps, it was more than a year; maybe two; I know it was some time that they were experimenting on this pipe there—drilling and driving.

Q. Were the ones you prepared to be used in open wells or cisterns—that you prepared for him before that time?

A. They were the same pipe to be drove; they did put them into open ones—the same pipe—driving them down part way, and the wells got dry in the summer and they put these in and drove them down.

Q. Have you any means of fixing the date when you made 5557 the first one for Mr. Mudge?

A. No, sir; I didn't keep the books; the books were kept in the store or office, and all I had to do was to keep account in the shop and take it in and they drew it off.

Q. How do you know in 1859 you made these instead of 1861?

A. I don't know by any particular date; only it was my opinion that it was about a year or year and a half or two years before this went into the army that we made the pipes there; we never made any pumps that I know of.

Mr. STUART:

Q. Did you ever make any of these pipes at the shop there for Col. Green?

A. Not that I know of.

Q. How were these couple-s when completed left on the outside surface, whether they were square or beveled?

A. The couplers were, I think, about 6 inches along; they were forged at a blacksmith's shop, and then we bored them out to make them true, and tapped them through and put them onto the mandrill and turned them off smooth—turned them down to 5558 taper each way to the edge, so that it would set to the pipe and not leave a shoulder, and then it drove smoother by turning.

Z. SMITH.

The witness, Zachariah Smith, on hearing his deposition read over to him as appears above, stated that he desired to make the following correction:

That in his answer to the second question on page 12 of this deposition, which reads, "How long before this had you manufactured them" he answered and said, "I could not say; some two years, perhaps," the words "two years" should read "six months;" that he makes such correction after reflecting upon the matter and fully satisfying himself that he was wrong in the time given in the answer first given.

Z. SMITH.

5559 MARTIN S. JAMES, a witness produced on the part of the plaintiffs, being first duly sworn, deposes and says:

My name is Martin S. James; I reside in Minneapolis, Minn.; am 40 years old; I have been agent for the American driven well for the State of Minnesota for the last 5 years; I know the complainants; am the James mentioned as one of them; do not know defendant.

Q. State whether at any time you went to Milwaukee, Wis., to investigate and ascertain whether or not certain persons mentioned in the testimony of one Allen Gates, a witness on the part of de- 5560 fendants and who testified on *their* behalf in this cause, had ever lived at or near the Cold Spring race-course mentioned by said Gates; and, if so, when they resided there and where they resided, and as to whether the statements of the said Gates in relation to the residences of said witnesses were true or not.

A. I did.

Q. State what you did in relation thereto, what efforts you made to find said witnesses at the time when you so went; give particulars, and what, if any, of the witnesses mentioned by said Gates you found or heard of.

A. I went to Milwaukee about Sept. 12, 1881; I tried to find a
man named Asher Moore, who was spoken of by the said Gates as
having performed some blacksmith work on the pipe and point and
who lived on the Lisbon plank road, about 8 miles from Milwaukee,
at a place called Garfield's Corners; I could find no trace of this Moore
or any one who had ever known him, nor could I find any
5561 citizen in Milwaukee among those I talked with who ever
knew or heard of Garfield's Corners. I talked with men who
claimed to have lived on the Lisbon plank road, and men who had
been thoroughly familiar with it for years, and during 1859 and before and since, but none of them knew of the said Moore or ever heard or knew of a place called Garfield's Corners on the Lisbon plank road. A party named John Ash—spelled Ash in the testimony of Allen Gates—I found, and his testimony was taken. His name is spelled Esch. I know John H. Elward, whose testimony was taken on behalf of the defendants in this cause at Stillwater, Minn.

Q. Were you present during the examination of Mr. Elward?

A. I was.

Q. The whole of it?

A. I was.

5562 Q. Did you ever go to Marseilles, Ill., and vicinity to find
out, ascertain, or investigate whether or not certain persons
mentioned by said Elward in his testimony as being persons with or for whom said Elward worked or persons whom said Elward employed during the year 1859 & 1860, shortly previous to the war of the rebellion, in the construction of ditches or drains, as stated by said Elward, were ever so employed by said Elward, or whether they ever worked with said Elward, or whether said Elward ever worked for them, as stated by said Elward in his testimony, and as to where said persons lived during said years 1859 & 1860 and immediately preceding the war of the rebellion, and where they resided at the time you so went, and when you so went, if at all?

A. I did, about the 15th Sept., 1881.

Q. Did you then and there make the investigations and enquiries referred to in the last interrogatory, and what was your object in going there, and what was the result of your observations? Give particulars.

5563 A. I did. I went there for the purpose of finding the par-
ties referred to in said Elward's testimony. A party named
Albert Hubbard, whom Elward thought was dead, I found employed in a lumber yard, whose deposition was taken. A party referred to as son-in-law of Alvin Dow I found to be one Wilson Rhines, whose deposition was taken. A party referred to by Elward as having worked for him who came from Dowagiac, Mich., I found to be one Samuel Stahl; I made numerous inquiries, but could get no trace of him since the war; I wrote to Dowagiac, Mich., but could get no trace of this Samuel Stahl; numerous parties in Marseilles remem-

bered this Stahl, but none of them knew anything of him since he went into the war. These were all the parties referred to by Elward as working for him. I found A. D. Butterfield, whose testimony was taken. A Mr. Bagley, of whom Elward spoke of as doing work for, was William Bagwell, and men employed by Elward 5564 testified regarding the work done on his farm. Beach Fellows and a Mr. Waterman, spoken of by Elward, had moved away. Fellows had moved to Ottawa, Ill.; the other one I could not find where he had went to. A party named Holderman, I was told, was insane. A party named Ebenezer Neff I was informed was dead. There was one party I did not see, named Way, owing to the terrible condition of the roads and the distance he lived from Marseilles. I also found that a party named H. C. Horine, who had been engaged in making drains and ditches in that locality and for whom Elward had worked previously to what Elward testifies himself, was then residing in that county, but was now living at Bloomington, Ill. Upon inquiry at Bloomington I found that he was temporarily in Colorado. I went to Bloomington to find the said Horin. I understand his deposition is to be taken. My object in going to Marseilles was not only to look up these men, but to take their depositions if necessary or advisable and to look up testimony bearing upon the testimony of the said Elward. 5565 Depositions of P. A. Butterfield and Elias Trumbo, who were not mentioned in Elward's testimony, were taken. I made numerous inquiries of old citizens in Marseilles and vicinity to find any trace of wells such as were testified to by said Elward as having been made while making ditches or drains, but could find no trace of anything of the kind or of any person who had any knowledge of any well or wells having been made by the said Elward, as testified to by him. (Here the testimony was read to witness.) After hearing the testimony read I desire to state that I could not learn that there had ever been a place known as or called Garfield's Corners anywhere in the vicinity of Milwaukee. I also desire to state that I made efforts to find some party or parties who knew or saw the pipe sticking up out of the ground on the Cold Spring race-course, near Milwaukee, as testified to by the said Allen Gates, but could not find any one who ever saw anything of the kind. The depositions of some witnesses who had lived on the Cold Spring race-course was taken.

5566 Cross-examination:

Q. How long have you lived in Minneapolis?
A. A little over five years.
Q. Where did you live previous to that time?
A. At St. Paul.
Q. How long in St. Paul?
A. From the fall of 1869.
Q. What was your business while in St. Paul?
A. Insurance—life.
Q. Any other business; if so, what? State fully.

A. No; excepting I was engaged in the insurance business as State agent of the St. Louis Mutual Life and the Alliance Mutual until some time in the spring of 1876. I then sold out the stock of R. O. Strong & Co., who had failed in the carpet business. I then went East and remained until I went to Minneapolis, in the fall or near the fall.

Q. Have you above stated fully all the business in which you were engaged in St. Paul?

A. All that I remember of.

Q. Where did you live before you came to St. Paul?

A. Chicago, Illinois.

Q. How long?

5567 A. From the spring of 1866.

Q. What was your business there? State it fully.

A. I was first engaged in a subscription-book and engraving business with W. J. Holland & Co., of Springfield, Mass., in the fall of 1867. I was engaged as a travelling salesman—first with the Elastic Sponge Co., then with the Chicago Wood Hangings Co.; then I was engaged for a short time in selling a corn-husker in Illinois. That was all I remember until I came to Minnesota in the insurance business.

Q. Where did you live before you came to Chicago?

A. Amherst, Mass.

Q. You say you were State agent of the St. Louis Life Ins. Co. in St. Paul.

A. I was.

Q. Is that company still in existence?

A. It is not.

Q. Did it not beat its policy holders generally out of their policies?

5568 A. I don't know that it did; its risks were reinsured; what the ultimate results were I don't know.

Q. Do you swear positively that its risks were reinsured; and, if so, with what company or companies?

Witness says, under the advice of counsel, I decline to answer.

Q. In case of death of policy holders did that Co. pay any

5569 of its policies by you issued?

Q. As to the Alliance Mutual Insurance Company for which you say you were State agent; is that still in existence; and, if not, did it pay its risks?

5570 Cross-examination closed.

MARTIN S. JAMES.

5570½ [Endorsed:] United States circuit court, district of Minnesota. Wm. D. Andrews *et al. vs.* Royal D. Cone. Depositions of witness on behalf of plaintiffs taken before H. E. Mann, master and examiner in chancery. Fees, $8.00. M. S. James. Filed Jan'y 12, '82. H. E. Mann, clerk.

5571 *H. C. Horine on Elward Well.*

United States Circuit Court, District of Minnesota. In Equity.

William D. Andrews, George H. Andrews, Nelson W. Green, and Martin S. James

vs.

Royal D. Cone.

Interrogatories to be propounded to A. C. Horine, a witness on the part of the complainants herein:

1. What is your name, age, residence, and occupation?

2. Did you or not ever reside or do business in La Salle county, Illinois?

3. In what town or towns in that county did you transact business, and what was the business?

4. During what year or years were you engaged in running a ditching machine in that county and making mole drains?

5. Please give the names of any or all the parties for whom you did ditching or made drains during the years 1858, '59, & '60, and in what towns they resided as far as you are able?

5572 6. Did you or not own the ditching machine you used?

7. Were any other person or persons interested with you in its ownership; and, if there was, please give the name or names?

8. Did you yourself work the machine or superintend its working?

9. How many men were required to work the machine?

10. Was or was not the machine patented; and, if so, who was the patentee?

11. Who built the machine, where was it built, and when?

12. How long did you use it?

13. Who owned or used it after you?

14. What and how much team did you employ in working the machine?

15. Will you please name some of the persons who were employed in working the machine during the years 1858 & 1859?

16. What was John H. Edward's position in the business during those years?

17. Did he or not own any portion of the machine, or was he interested in the profits of the business?

18. Had you or not any knowledge of Edward being subsequently engaged in the ditching business after leaving you?

5573 19. Do you know whether or not he invented, built, and patented a mole ditching machine after leaving you?

20. Do you know when and where he used such machine or who for and whether other parties were interested with him; and, if so, who they were? Please state fully.

21. Do you know where John H. Edward now resides and if he is the inventor of the Elward harvester? If you do, please state.

22. What was the nature of the ground where these mole drains were made as to being wet or dry, high or low?

23. Where and how did you usually procure water for drinking purposes for your men and teams?

24. Did or did not J. H. Elward have any control of the proceeds earned by the ditching machine while he was with you?

25. Do you know whether or not John H. Elward worked for or with other parties in La Salle Co., Ill., at the ditching business, making mole drains during the years 1858 or 1859?

26. When and where did you first become acquainted with said Elward, how long did your acquaintance continue, and when did you last see him?

ROGERS & ROGERS,
Complainants' Solicitors.

5574 To the first interrogatory the witness deposes & says: My name is H. C. Horine; age, 51 years; residence, Bloomington, Ill.; occupation, miner.

To the second interrogatory: I did have business there.

To the third interrogatory: In the northeast part of the county; I cannot name the towns; business, underground or mole ditching.

To the fourth interrogatory: During 1858 and 1859.

To the fifth interrogatory: I can name but few—Calvin Barnes, Andrew Barnes, Benoni Hall, Lorenzo Aldrich, Stephen Aldrich, Mr. Butterfield, Mr. Shaffer; there were many others, but I cannot remember their names. They all lived in La Salle county, but I cannot give the towns.

To the sixth interrogatory: I did.

To the seventh interrogatory: No other person was interested.

5575 To the eighth interrogatory: I worked it part of the time myself and superintended its working the balance of the time.

To the ninth interrogatory: Two & sometimes three.

To the tenth interrogatory: It was patented; Ezra Marquis was the patentee.

To the eleventh interrogatory: Ezra Marquis built it in 1858; do not know where.

To the twelfth interrogatory: I used it about three years to the best of my recollection; used it last in 1860.

To the thirteenth interrogatory: I do not remember.

To the fourteenth interrogatory: Usually two yoke of oxen.

To the 15th interrogatory: J. P. Hubbard and John Elward.

To the 16th interrogatory: Principally driving the team.

To the 17th interrogatory: He did not own any interest in the machine or have any interest in the profits of the business.

To the 18th interrogatory: I had no knowledge of it.

5576 To the nineteenth interrogatory: I do not know.

To the twentieth interrogatory: I know nothing at all about it.

To the twenty-first interrogatory: I do not know where he resides, neither do I know whether he is the inventor of the Elward harvester.

To the twenty-second interrogatory: Wet and low.

To the twenty-third interrogatory: Usually by making underground ditches with the machine, which formed a living spring of water at the mouth of each ditch.

To the twenty-fourth interrogatory: He did not.

To the the twenty-fifth interrogatory: I do not know.

To the twenty-sixth interrogatory: I first became acquainted with him at Marseilles, La Salle county, Ill., in 1859. Acquaintance continued about one year. Have not seen him since 1859, to the best of my recollection.

H. C. HORINE.

Subscribed and sworn to before me this 14th day of January, 1882.

FAREN ENGLAND,
Commissioner.

[Endorsed:] U. S. circuit court, Minnesota. William D. Andrews *et at. vs.* Royal D. Cone. Deposition of H. C. Horine. Copy.

5577 ALBERT S. ROLLO, being called for the defendant and cautioned and sworn to tell the truth, the whole truth, and nothing but the truth in the above-entitled cause, deposes and says as follows:

5578 Q. 1. State your name, age, residence, and occupation?

A. My name is Albert S. Rollo; aged nearly forty-four years; residence, Wilmington, Delaware, and I am a mechanic by occupation.

Q. 2. Did you formerly reside in Cortland village, Cortland Co., N. Y.?

A. I did.

Q. 3. Did you reside there in the year 1861?

A. I did.

Q. 4. Do you remember of the 76th Regiment of N. Y. Vols. being encamped on the Cortland county agricultural fair grounds in Cortland village in the year 1861?

A. I do.

Q. 5. Do you remember of being present at the construction of a well made by means of tubes on that fair ground?

A. I do.

Q. 6. Was that well made there while the regiment was encamped upon the ground?

A. It was.

Q. 7. Whom, if anybody, did you assist in the making of that well?

A. Byron Mudge.

5579 Q. 8. What was your business at that time?

A. I was employed in the firkin factory.

Q. 9. Will you please give a description of the tools that were employed in the making of that well; simply naming them?

A. The tools consisted of a tall frame, with a pulley attached at the top, an iron rod or bar, a lever, iron tongs, and a pump.

Q. 10. Please describe how the former was made?

A. I think, as I remember right, there were three timbers, perhaps twelve feet long, running up to a point at the top, with a pulley attached to the top.

Q. 11. How was the iron rod made?

A. It was made pointed or sharpened at the bottom, and swelled out towards the point.

Q. 12. Was it made in sections?

A. It was.

Q. 13. How were the sections fastened together?

A. If I remember correctly they were fastened by a coupling going onto the end of each section; there was a slot through the
5580 coupling and the bar, and a key was put through the slot.

Q. 14. What kind of a pump was it?

A. The pump that was used as a tool was a tin pump, called a boat pump.

Q. 15. How did you use the rod?

A. It was used by attaching a rope to the end of the rod, which rope ran over a pulley at the top of the frame. While one man pulled the rope down another held the rod, and thus worked the rod up and down by one pulling the rope and the other working the rod down with his hands.

Q. 16. How was the lever made?

A. It was an iron bar three or four feet long. The lever was attached to the bar for the purpose of assisting in working the bar down by means of turning it around and lifting it up and down.

Q. 17. How was the lever fastened to the rod?

A. It was attached by a coupling or cap that would screw around the rod in two sections.

Q. 18. What was the first operation or act that was done in
5581 making this well after you had got the frame up and ready to commence operations?

A. It was by making a hole in the ground—by working this rod up and down.

Proceedings adjourned until 1.15 o'clock p. m.

1.15 O'CLOCK P. M.

Convened pursuant to adjournment.

Complainants appear as before, by George L. Waters, Esq.

Defendant appears by John W. Suggett, Esq.

Examination of ALBERT S. ROLLO resumed:

Q. 19. What kind of tubing did you use?

A. Tubing made of zinc.

Q. 20. How was this tubing made?

A. It was made and put together in sections like stovepipe.

Q. 21. What was the length of a section, or about what was its length?

5582 A. I could not say as to the exact length; I think that zinc comes in sheets and the sections were made the whole width of a sheet, perhaps two feet or more.

Q. 22. What was about the diameter of the tubing?

A. As near as I can remember it was about two inches, not less than two inches nor more than three—perhaps two inches and a half or thereabouts.

Q. 23. How was this zinc pipe used?

A. It was used for the purpose of a curbing to the well.

Q. 24. What was the method pursued in getting it down?

A. After the rod had been worked down sufficiently to admit this tubing then one section was put into the hole; then the rod was worked inside of this tubing, and then as the rod went down drill- this hole the pipe was worked down with it.

Q. 25. Did you add new sections of the tubing as the hole was made deeper by the rod?

A. I did.

5583 Q. 26. And did you continue this operation until you had got the tubing down into the water?

A. I did.

Q. 27. How was the lower section of the zinc tubing prepared?

A. It was prepared by slots being cut or punched to the distance of at least a foot or more from the bottom.

Q. 28. What was the object of those slots?

A. For the purpose of admitting a free flow of water and air from the outside into this tubing.

Q. 29. How did you use the rod inside of the zinc pipe?

A. It was used by working it up and down, the lever being fastened to it to keep it free and easy by working it around.

Q. 30. How did you force the sheet iron or zinc pipe down with the rod?

A. It was worked down with the hand, sometimes a stick was placed across the top to crowd it down, and if it did not go down easy it was thumped down with a hammer.

Q. 31. After you had got the zinc tubing down and had withdrawn the bar, what was then done? 5584

A. After it was worked down into the water sufficiently the bar was withdrawn and this tin pump was inserted in the tubing and primed with water and the men commenced pumping with it in order to help clean out the loose dirt and mud.

Q. 32. After the boat pump had been used to clean it out, as you have testified, and withdrawn, how was the water permanently obtained from the well?

A. Obtained by inserting a lead pipe which was attached to an iron pump, which we called a pitcher- spout pump at that time.

Q. 33. Did the lead pipe go any deeper than the zinc pipe?

A. It went the same depth. That was the intention. It went the same depth, as far as we could ascertain.

Q. 34. After you had got the zinc pipe down was there a measurement made to see what length of lead pipe you would want, adding to it the distance it would stand up above the zinc pipe?

5585 A. There was.

Q. 35. What was the size of the lead pipe?

A. I could not say as to that. It was the same size used in cisterns—common size. I have no recollection what the exact size was.

Q. 36. Was it considerably smaller than the zinc pipe?

A. Yes, sir; it was a good deal smaller than that.

Q. 37. After it was inserted in the zinc pipe was there a ring of space between the two pipes extending from the surface down to and into the water?

A. There was.

Q. 38. What makes you sure that the zinc pipe went down as far as the lead pipe? Give your reasons.

—. ——.

5586 Q. 39. Did the zinc tubing go down as far as the lead pipe? If yea, give your reasons for this answer.

A. It did. My reasons are that we used a line or plummet to ascertain the depth of the water, and by that course we got the measurement of the tubing also.

Q. 40. Did you see one section after another of this zinc tubing put on and forced down until you had got it deep enough into water?

5587 A. I did.

Q. 41. When you made the measurement with the plummet to ascertain the depth that it would descend from the top of the zinc tubing down into the ground, did you compare it or was 5588 it compared with the amount of the zinc tubing used—that is, the aggregate length of the sections of the zinc tubing used; and, if so, how did they compare?

A. I do not remember as to that, whether——

(Witness here asks defendant's counsel to explain his question.)

Q. 42. I will. I mean the distance from the top of the zinc tube, after it was inserted in the ground and the bar withdrawn, to the place where the plummet stopped when it was lowered into the hole. I desire that distance compared with the total length of the zinc tubing put into the ground.

5589 A. I cannot recollect that it was, but it is my opinion that it was.

Q. 43. What was the character of the soil there?

A. It was a loose, gravelly soil.

Q. 44. How was it as regards being free from stone?

A. Very free from stone, as near as I can remember; nothing to speak of to hinder work.

Q. 45. Did you meet with any obstructions in getting the zinc pipe down?

A. I think not; no serious obstruction.

Q. 46. Was it a comparatively easy or a difficult process to get this zinc tubing down?

A. My recollections are that it was comparatively easy.

Proceedings adjourned until 7 o'clock p. m.

7 O'CLOCK P. M.

5590 Convened pursuant to adjournment.

Complainants appear as before, by George L. Waters, Esq.; defendant appears by John W. Suggett, Esq.

Examination of ALBERT S. ROLLO resumed:

Q. 47. Was the space between the zinc pipe and the lead pipe filled with any packing of any kind?

A. It was not.

Q. 48. Could the air pass freely down from the surface and to the water in the space between the two pipes?

A. It could.

Q. 49. How many lengths or sections of the zinc tubing do you remember were put together and inserted in the ground in that well?

A. According to my recollection there was somewheres from eight to nine—eight or nine, according to my best recollection.

Q. 50. Do you remember about how much water there was in the zinc tubing after it was put down?

5591 A. I think four or five feet.

Cross-examination:

C. Q. 51. How long have you resided at Wilmington, Delaware?

A. About one year.

C. Q. 52. When did you remove from Cortland?

A. In the spring of 1864.

C. Q. 53. Did you come to Cortland at the present time for the purpose of being sworn as a witness?

A. I did.

C. Q. 54. When were you subpœnaed?

A. I received notice Tuesday morning of this week, I think.

C. Q. 55. From whom?

A. Wilson and Gale.

C. Q. 56. Are they defendant's solicitors, as you understand?

A. That is as I understand it.

C. Q. 57. Had you previously been in correspondence with them as to what you would testify to?

5592 A. I have not had any correspondence except a notice to come and testify as to the early history of this well.

C. Q. 58. What, if anything, were you paid for coming?

A. Simply my expenses.

C. Q. 59. Have you ever been sworn before as to the matters you have here testified to?

A. I have.

C. Q. 60. When?

A. It is gone from my mind just now; it was in the year 1864 or 1865, I am not positive which.

C. Q. 61. In what case or cases?

A. In the case between Byron Mudge, James Suggett, and Nelson W. Green.

C. Q. 62. Have you recently read or heard read the testimony given by you on that occasion or any part thereof?

A. I have read it.

C. Q. 63. When?

5593 A. Within three or four days.

C. Q. 64. Where?

A. On the cars, on my journey here.

C. Q. 65. Who furnished it to you?

A. It was sent to me by mail.

C. Q. 66. By whom?

A. By Ebenezer Mudge, of Cortland.

C. Q. 67. Was it in manuscript?

A. It was.

C. Q. 68. In whose writing?

A. I do not know.

C. Q. 69. How came he to send it to you?

A. He sent it to me to read and look over.

C. Q. 70. At whose request?

A. I do not know.

C. Q. 71. Did it come to you without your request or without your previous knowledge that it was to be sent?

5594 A. It did; I knew nothing about it until I received it.

C. Q. 72. Will you produce it?

A. I will if I am obliged to.

C. Q. 73. You are not obliged to; I merely request it. Will you comply with the request?

A. Yes, sir; it is in my valise and I will bring it in the morning.

C. Q. 74. You say on your direct examination that at the time the well was put down on the fair ground you were at work in the firkin factory. Please state what firkin factory.

A. Mr. Byron Mudge's.

C. Q. 75. Were you then an employee of Byron Mudge?

A. I was.

C. Q. 76. Are you a relative of Byron Mudge, either by consanguinity or affinity?

A. I am his brother-in-law.

C. Q. 77. At the time of the putting down of the fair-ground well what were your duties under his employment?

5595 A. The same as any employee.

C. Q. 78. I mean by the last question did you have a particular line of work to do, or otherwise?

A. No particular line.

C. Q. 79. You have stated that you are a mechanic. Did you, while in Byron Mudge's employ, work at mechanical business, or did you do all kinds of work required by him?

A. I done both.

C. Q. 80. Where were you employod most of the time?

A. The most of my time in Mudge's firkin shop?

C. Q. 81. How far was that from the fair ground?

A. Two miles, I should judge, or more.

C. Q. 82. At whose suggestion did you leave your work at the firkin factory and go to the fair ground to aid in sinking the well?

A. I do not remember now, but I should suppose it would be at the suggestion of Byron Mudge.

C. Q. 83. Have you any memoranda from which you can fix the exact date of the putting down of this well?

5596 A. I have not.

C. Q. 84. Can you tell what year it was?

A. I think it was in the year 1861.

C. Q. 85. What season of the year?

A. I think it was in September.

C. Q. 86. How long did it take to make this well?

A. I do not recollect as to that.

C. Q. 87. Was it more than one day?

A. I think not.

C. Q. 88. Did it take all day?

A. I think it used up the day.

C. Q. 89. Please locate the well.

A. I could not locate it. I think it was in the southern part of the fair ground, and back from the entrance; I do not know how far.

C. Q. 90. Was it within a building?

A. I think it was inside the cook-house.

C. Q. 91. Was it within the lines of the camp of the 76th regiment?

A. I could not say as to that.

C. Q. 92. Were the soldiers of the regiment, or some of them, at the well at the time it was put down?

5597 A. I think they were around there some; I do not think they took any particular interest at that time in what was going on.

C. Q. 93. Who was the commandant of that regiment at that time?

A. Colonel Nelson W. Green, I think.

C. Q. 94. What connection, if any, did Byron Mudge have with that regiment at that time?

A. I do not recollect that he had any particular connection at that time.

C. Q. 95. Do you testify that he did not have any?

A. I do not recollect that he did.

C. Q. 96. Do you recollect whether he did or not?

A. I think he had no official position at that time.

C. Q. 97. Did he have any unofficial position in the regiment at that time?

A. I think not.

C. Q. 98. Did he wear the uniform of an officer?

A. I think he did not at that time.

5598 C. Q. 99. Was he then known by the title of Lieutenant Mudge?

A. I do not remember that he was.

C. Q. 100. Do you remember whether he was or not?

A. I do not.

C. Q. 101. How long had the regiment been there encamped when the well was put down?

A. I cannot remember.

C. Q. 102. Are many of the minor details of the transaction indistinct in your mind after the lapse of so many years since their occurrence? I mean the transaction of putting down the well.

A. Some of them are indistinct.

C. Q. 103. What persons aided in constructing this fair-ground well?

A. I do not think any one did, except myself and Abram Mudge, who assisted some.

C. Q. 104. Did not Byron Mudge?

A. He did.

C. Q. 105. Will you testify positively that no one else worked in constructing this well?

5599 A. I could not say positively.

C. Q. 106. Were you there all the time it was being constructed?

A. I was not.

C. Q. 107. How much of the time were you away?

A. I could not say as to that.

C. Q. 108. Can you not give any idea?

A. I could not.

C. Q. 109. Were you away all the time?

A. No, sir.

C. Q. 110. How much of the time were you there?

A. I could not tell.

C. Q. 111. Cannot you give any idea of the time you were there at work at the well?

A. My recollection would be that I was there more than half the time. I was off and on two or three times.

C. Q. 112. Where were you when you were "off?"

A. I think I was here at my house in the village.

C. Q. 113. You do not pretend to know, do you, who worked at the well in your absence?

A. No, sir; I do not.

5600 Proceedings adjourned until Saturday, November 20th, 1880, at 9 o'clock a. m., at this place.

SATURDAY, *November 20th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Complainants appears as before by George L. Waters, Esq.; defendant appears by John W. Suggett, Esq.

Cross-examination of ALBERT S. ROLLO resumed:

C. Q. 114. You have stated that at the time the well was made on the fair ground that you were away a part of the time. Please state which part of the time you were away, whether at the beginning or at the close of the work, or when.

A. I could not say positively as to that, but I think I was there at the beginning.

5601 C. Q. 115. And do you think that you were not there at the close of the work?

A. I cannot be positive as to that.

C. Q. 116. Do you remember at what stage of completion the work was when you left?

A. I do not.

C. Q. 117. Do you know De Witt C. McGregor?

A. I do not.

C. Q. 118. Is Abram Mudge, the other person that assisted you in making this well, living?

A. He is not.

C. Q. 119. As I understand you, all the persons that you have any remembrance that assisted you in making this well are Byron Mudge and Abram Mudge. Is that correct?

A. Yes, sir.

C. Q. 120. Were you accustomed to visit the fair ground at this time frequently or was this visit on the day you made the well your only visit there?

A. I was not accustomed to visiting there previous to that day. After that I was there frequently.

5602 C. Q. 121. For what purpose did you after that day visit the fair ground?

A. I had no particular object—merely the occasion of the regiment being there.

C. Q. 122. You have testified that on the bottom of the zinc pipe there were slots about a foot and a half long extending from the bottom upwards. How many of these slots were there in the bottom section of this zinc tubing?

A. I do not know how to answer that question.

C. Q. 123. Perhaps I misunderstood you, and I now ask you to describe the slots made in the bottom of the zinc pipe.

A. The pipe was perforated or punched with holes or slots, which extended upward from the bottom of the zinc tubing for a 5603 distance of about a foot and a half. I do not mean that each slot was a foot and a half long.

C. Q. 124. What was the size of these slots?

A. I cannot tell.

C. Q. 125. Tell as nearly as you can.

A. I should judge they were, perhaps, a sixteenth of an inch; if they were slots thay would naturally be a little longer, like perforations made with a chisel—perhaps an inch or so long.

C. Q. 126. Do you know whether they were slots or not?

A. I cannot say positively.

C. Q. 127. Why can you not say?

A. Because I cannot remember.

C. Q. 128. Do you remember who made them?

A. I do not.

C. Q. 129. Do you remember so that you can swear positively whether there were any holes or slots either in the bottom of this pipe?

A. I do.

C. Q. 130. Please explain how.

A. Because that was the plan and the idea at that time.

5604 C. Q. 131. Then, as I understand you, Mr. Rollo, while you do not remember positively of seeing the holes or slots, yet you are sure that they were there because it was the plan that they should be there; is this correct?

A. That is correct in one view.

C. Q. 132. In what view, if any, is it not correct?

A. Because it was the plan adopted, and also because I had seen the holes.

C. Q. 133. Had seen what holes?

A. The holes perforated in this zinc pipe used on the fair ground.

C. Q. 134. Where had you seen them?

A. On the fair ground that day.

C. Q. 135. But you cannot say whether they were round holes or slots, can you?

A. I could not say positively.

C. Q. 136. What circumstance connected with these holes or slots makes you remember that you saw them, after the memory of whether they were holes or slots has passed out of your mind?

5605 A. Because that was the plan adopted at that time, and I knew of the pipe being prepared for the purpose of putting a well there in that manner.

C. Q. 137. Where was it prepared?

A. I do not recollect.

C. Q. 138. Who prepared it?

A. I cannot remember.

C. Q. 139. What circumstance can you remember that enables you to testify as you did in answer to question 136, "I knew of the pipe being prepared for the purpose of putting a well there?"

A. Because I was there and saw the pipe and assisted in putting it in.

C. Q. 140. Was it prepared before it went there?

A. I think it was.

C. Q. 141. Where was it got?

A. I do not know.

C. Q. 142. Who brought it to the fair ground?

A. I cannot remember.

5606 C. Q. 143. What was the size of the iron bar used in comparison with the zinc tubing?

A. It was a little smaller than the zinc tubing.

C. Q. 144. You have testified that these slots in the zinc pipe were for the purpose of admitting a free flow of water and air from the outside into the tubing. Was there anything in the bottom of the zinc tubing to prevent the water rising in the tube?

A. No, sir; if I understand the question; the bottom of the zinc tube was free and not plugged up at all.

C. Q. 145. You have also testified that the air could pass freely down from the surface to the water in the space between the two pipes, the zinc pipe being thus open at the bottom and the top. Did you still deem it necessary to have these slots or holes in the bottom of the zinc pipe for the admission of air and water?

A. I did.

C. Q. 146. You have testified that it was the intention and, 5607 as far as you could ascertain, it was a fact that the zinc tubing and the lead pipe went down to the same depth. Will you swear positively that the lead pipe did not go lower than the zinc tubing?

A. I will.

C. Q. 147. Will you swear positively that they extended exactly the same depth?

A. I cannot—that is, to be exact.

C. Q. 148. Will you swear positively that the zinc tube extended lower than the lead pipe?

A. I will.

C. Q. 149. How much farther will you swear positively that the zinc tubing extended lower than the lead pipe?

A. I cannot tell the exact length.

C. Q. 150. About how much farther will you swear that it did?

A. I cannot swear positively, but think perhaps two or three inches.

C. Q. 151. Will you please to explain, Mr. Rollo, how it is that while you have once testified that it was the intention that these two pipes should extend to the same depth, and that they did extend the same depth so far as you were able to ascertain, that 5608 you now testify that the zinc tubing extended two or three inches lower than the lead pipe?

A. I have not been exact in any of these statements. As near as I could ascertain that was the intention, and it was the intention that the zinc pipe should go as low, if not lower, than the lead pipe.

C. Q. 152. Why did you not state the last clause before?

A. Because that was a part of my answer.

C. Q. 153. What answer?

A. The answer to question 151.

C. Q. 154. Is that the only explanation you desire to give?

A. And because it would leave a little space between the bottom of the well and the bottom of the lead pipe for the admission of water.

C. Q. 155. And do you mean to swear positively that in this fair-ground well there was a little space between the bottom of the well and the bottom of the lead pipe, or do you mean merely to say that that was the plan you had in view in making this kind of 5609 wells?

A. I am swearing to both of those questions. It was the plan and also the fact.

C. Q. 156. Will you now please to state how it is that you are able to testify that the lead pipe was two or three inches shorter than the zinc tubing?

A. Because reason and common sense would show that there would need to be a space there in order to get a supply of water easily.

C. Q. 157. And is that your only reason?

A. Because it was the intention and plan and idea.

C. Q. 158. Are these your only reasons?

A. Yes, sir.

C. Q. 159. Now, will you please to explain why it is that it was necessary, and, as you say, reason and common sense shows that the zinc tubing should extend further into the ground than the lead pipe?

5610 & 5611 A. For the purpose of curbing the well up and keeping the earth away from the bottom of the lead pipe and stopping the supply of water, answering the same purpose as the curbing for any dug well.

C. Q. 160. Then do you say that the only object you had in putting down the zinc tubing was to protect the lead pipe and keep it from being jammed in by the pressure of the earth?

A. I suppose that was the object.

C. Q. 161. And the only object?

5612 Proceedings adjourned until 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Complainants appear as before, by George L. Waters, Esq.; defendant appears by John W. Suggett, Esq.

Cross-examination of ALBERT S. ROLLO resumed:

5613 5614 C. Q. 162. You have stated that the object of putting down this tubing was to protect the lead pipe. I ask you now to put aside from your mind the suggestions made by the counsel in his objection and answer, Was that the only object of putting down the tubing?

A. It was not.

C. Q. 163. Aside from the reasons suggested to you by the defendant's counsel made in your hearing, if those were reasons, what other reasons were there for putting down this tubing, aside from protecting the lead pipe?

A. For the purpose of giving space and room for the admission of a bountiful supply of water and free admission of the lead pipe into the well.

C. Q. 164. Have you now given all the reasons that you know of for the putting down of the zinc tubing?

5615 A. I might have added to the last clause, and also taking it out of the well.

C. Q. 165. Have you now given all the reasons?

A. All that I can remember at present.

C. Q. 166. How was the lower end of the lead pipe prepared?

A. It was open.

C. Q. 167. Was it perforated?

A. I think not.

C. Q. 168. Will you swear that it was not?

A. I will not.

C. Q. 169. Will you swear that it was open at the bottom?

A. I think it was.

C. Q. 170. Will you swear that it was?

A. I cannot say that I will.

C. Q. 171. Did you measure this well after the tin tubing was put in?

A. I cannot remember that I did, but probably assisted in measuring.

C. Q. 172. You say that you probably assisted; will you testify that you did assist?

A. I assisted in making the well, whether measuring the depth of the well or whatever it was.

5616 C. Q. 173. Will you swear positively that you either measured or assisted in measuring that well?

A. I assisted in constructing the well; whatever work was done there I assisted in.

C. Q. 174. Did you understand my last question?

A. I think I did.

C. Q. 175. Then please answer it—I mean question 173.

A. I did.

C. Q. 176. Which did you do; measure it or assist in measuring it, or did you do either?

A. I assisted.

C. Q. 177. Whom did you assist?

A. Mr. Byron Mudge.

C. Q. 178. Why did you state in answer to question 171, which is, "Did you measure this well after the tin tubing was put in?" "I can not remember that I did, but probably assisted in measuring," and how do you reconcile it with your present positive statement that you did assist Byron Mudge in measuring this well?

5617 A. My reasons are that I had to think awhile; it was so far back; knowing the fact that I did assist in the work there, the more positive I was that that part of the work I assisted in.

C. Q. 179. It now having come to your recollection that you did assist in measuring it, state just what you did in making the measurement.

A. I cannot say; it might be that I had hold of the line and dropped it in, and it might be that I might have pulled the line or plummet out as it went down, or whatever work was necessary in the construction of the well or measuring; I cannot state the particulars.

C. Q. 180. What makes you remember that you measured it at all when you cannot state a single act that you did in making the measurement?

5618 A. Because it was a part of the construction of the well in order to get the depth of water, and also the length of the pipe; those are all the reasons that I remember of now.

C. Q. 181. Did the plummet line descend to the bottom of the hole made by the bar?

A. It probably did; we probably measured it at different times as the bar and tube descended.

C. Q. 182. How was the lead pipe fastened to the pump?

A. I am not positive as to that; I think it was soldered to a nut and that nut screwed to the bottom of the pump; that is my impression.

C. Q. 183. Did you see it fastened to the pump?

A. I did.

C. Q. 184. Where?

A. On the fair ground, where the well was put down.

C. Q. 185. Who did it?

A. I cannot say as to that; probably Mr. Mudge, with my assistance.

C. Q. 186. Did you have soldering tools there?

A. I think not.

C. Q. 187. How could you solder the pipe to the pump without?

A. We could not do it.

C. Q. 188. Do you know Jacob Haben?

5619 A. I think I do.

C. Q. 189. Was he there during the construction of this well and aided in it?

A. I have no recollection of his being there.

C. Q. 190. In view of the fact that nearly twenty years have elapsed since the putting down of that well, and in view of the indistinctness of your recollection as to many of the details of the transaction, and in view of the fact that you have testified that you were not there only about half of the time that the well was being constructed, and that the first half of the time, I ask of you, Mr. Rollo, do you not think that many of your impressions as 5620 to the mode and detail of the construction of this well have been derived from sources other than from actually witnessing the transaction?

A. In the first place I testified that more than half of my time was spent there, I think; not "about;" I was off and on two or three times during the day; probably I was there the last half as much as the first half. In regard to the fact of indistinct memory and the lapse of time, that I remember quite distinctly the more important facts in regard to the construction of that well, but the little, minor details—such as who or what one was there, or what particular tool I handled, or part I took in constructing the well—are indistinct in my mind. I do not think that they have been 5621 derived from any other source than from the actual transaction.

C. Q. 191. Are you certain that the tubing used was zinc?

A. I am not certain that it was zinc, zinc or sheet iron galvanized.

C. Q. 191½. Have you not once testified that it was tin and a little smaller than common conductors on houses?

A. I do not remember that I have; I might have used the word "tin," as I have "sheet iron" or "zinc," all meaning the same, in my testimony.

C. Q. 192. Do you remember the fact—if it was a fact—that after the making of this well on the fair ground, Byron Mudge prepared material for the purpose of taking it, with the 76th regiment, into the field to make wells with?

5622 A. I do remember.

C. Q. 193. Please describe the materials that he thus prepared.

A. I cannot specify as to all the particulars. He had galvanized gas pipe. I think inch and a quarter prepared in short pieces. I am not sure as to the length, perhaps two feet or more. The lower section was perforated with slots or holes; I am not sure as to that. The end of this piece was pointed with a plug. I am not sure as to its being an iron plug.

C. Q. 194. Was the plug riveted to the pipe?

A. I think not, but I am not sure.

C. Q. 195. I will ask you, Mr. Rollo, to look at the written
5623 statement of your former testimony, sent to you, as you say, by Mr. Mudge, and again ask you whether the plug was riveted to the pipe.

5624 A. I cannot say positively.

C. Q. 196. Did you once testify that it was?

A. I cannot say as to that. I suppose if it is recorded in that way, unless it is an untrue writer.

C. Q. 197. Did you once testify that it was an iron plug?

A. I do not remember that I did.

C. Q. 198. What is your impression as to whether the plug was iron or other material?

A. My impression is that it was iron.

C. Q. 199. When was it that he prepared these materials you have mentioned?

5625 A. I think some time in October of 1861.

C. Q. 200. Did Byron Mudge explain to you how he proposed to make a well with these materials?

A. He did.

C. Q. 201. What did he say?

A. I cannot tell as to the particulars of it; merely to use them the same as used on the fair ground; the same process of getting water as near as I can remember.

C. Q. 202. Did he propose to use more than one pipe?

A. I do not remember about what was said in regard to that.

C. Q. 203. How was he to fasten the sections of gas pipe together?

A. They were screwed together with couplings.

5626 C. Q. 204. Did he not say to you, in substance, that he proposed to put the gas pipe directly into the hole made by the bar, and to then attach his pump directly to the gas pipe?

A. I cannot remember that conversation.

C. Q. 205. Do you mean by your last answer that you do not remember whether he so stated to you or not?

A. I do not remember.

C. Q. 206. Did Byron Mudge take these materials to the army; and, if not, what became of them?

A. He did not; he left them in my barn.

C. Q. 207. In what part of your barn and where was your barn?

A. The barn was situated on Railroad St., where John Barnes now lives; I do not remember what part of the barn they were left in; probably on the ground floor.

5627 C. Q. 208. Were they open to view to any person visiting the barn?

A. I think they were.

C. Q. 209. Do you know whether James Suggett saw them there or not?

A. I do not.

C. Q. 210. Did you know of his coming there to get the tools of Byron Mudge used in making wells with?

A. I have no remembrance of his coming there.

C. Q. 211. Who prepared these materials and by whose directions were they prepared?

A. I do not know.

C. Q. 212. Was this pipe, thus prepared for taking into the army, afterwards used in making a well; and, if so, when and where and was it a successful well?

A. It was; I cannot recollect when or where or whether it 5628 was a successful well or not.

C. Q. 213. Who used it? State any circumstance that you remember in regard to its being thus used.

A. I do not know who used it. After the pipe was left in my barn I lost my interest, and do not know how they got away from the barn.

C. Q. 214. How do you know it was used for a well?

A. Only by hearsay.

Redirect-examination:

R. D. Q. 215. Do you know of your own knowledge that the pipe that was left in your barn was ever used in making a well?

A. I do not.

R. D. Q. 216. Do you know, of your own knowledge, if it ever 5629 was used, that it was not used inside of another metal tube?

A. I cannot recall in my memory now of any time in my own personal knowledge.

R. D. Q. 217. Lead pipe is objectionable to obtain water through for drinking and domestic purposes; will you swear that Byron Mudge did not get this galvanized gas pipe to obviate that difficulty?

A. He did get it to obviate that difficulty. That was his idea.

R D. Q. 218. Will you swear that there was not a box of metallic casing or curbing made of galvanized sheet iron or zinc pipe also left in your barn?

A. I will say that, as I stated before, Mr. Mudge's idea and object was to use the pipe in constructing a well the same as on the fair ground; I do not remember as to what particular tools and 5630 pipes and apparatus he had prepared to take into the army that was left in my barn; I did not pay much attention to them after that, if any.

R. D. Q. 219. These tools or this pipe that were left in your barn remained there, did they not, until the return of Byron Mudge, in 1862?

A. I think they did.

The deposition having been carefully read over to the witness, he desires to have the words and air stricken out from his answer to question No. 28; that in reference to the answer to question No. 60 he has since ascertained that he was sworn in 1866, and that he desires to have the words "air and" stricken out in the last clause in the answer to question No. 145.

5631 Q. 220. Did you not, in your answers to question 28 and to question 145, give them as they were recorded by the notary?

—. I did.

Q. 221. Please state what you desire to as to why you made these corrections.

A. Because I thought the word "air" in that connection was out of place.

ALBERT S. ROLLO.

Subscribed and sworn before me this 20th day of Nouember, 1881.

[L. S.] M. STANLEY BIERCE,
Notary Public.

5632 11 O'CLOCK A. M.

Convened pursuant to adjournment.

Present: As before.

Cornelius Brown, being produced for defendant, cautioned, and sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. Cornelius Brown; age, 56 years; residence, Marathon, N. Y., and occupation, hotel heeper.

Q. 2. Did you formerly reside at Cortland village?

A. Yes, sir.

Q. 3. When did you first commence to reside at Cortland village?

A. I came here, I think, in 1855.

Q. 4. Did you reside here from 1860 to 1867 or 1868?

A. Yes, sir.

Q. 5. Where did you reside in 1861 in this village?

A. On Port Watson St.

Q. 6. When did you commence to reside there, and how long?

A. I moved there in 1859 and left in 1864.

Q. 7. What was your business while living there?

5633 A. I kept a grocery store and a bakery connected with it?

Q. 8. While living at that place on Port Watson St. did you know Byron Mudge?

A. Yes, sir.

Q. 9. Did you also know James Suggett?

A. Yes, sir.

Q. 10. Did you also know Nelson W. Green?

A. Yes, sir.

Q. 11. What conveniences for water did you have at that place on Port Watson St.?

A. I had none when I first went there; there was no water on the premises.

Q. 12. What did you do to obtain water there?

A. I built an addition to the house, and under this addition I built a cistern first; then the idea was suggested to me, by parties around, that I could sink a well side of my cistern; some thought I could sink it in the bottom of the cistern. I understood, by the by, that there was a kind of machinery in town by which they could bore down and get water; it belonged to one Byron Mudge. I went down to the planing-mill to see him about it; the machine was there. I tried to get them to put it down for me. He said 5634 that there was no use of going, as they could not make it work in cobble-stone; they had tried it and made a failure. I asked him if he would let me have the machine. He said he would. I think he asked me who was helping me, and I told him Mr. Suggett. I took the machine with me. We commenced to bore with the machine down side of the cistern; it was only six or seven feet to water; this was in the excavation made for the cistern. We worked at night so as not to be in the way of the carpenters. We worked, I guess, about three nights—Mr. Suggett & myself. We could not get the thing down and gave it up. I then went and got some pieces of gas pipe; had them fastened together by bands shrunk on; the point turned off, and holes perforated near the end. We then drove this pipe down and in about two hours had water.

Q. 13. What were the tools that you got of Byron Mudge?

A. A drill, a pipe, a lever, and a wrench.

5635 Q. 14. What was the diameter of the instrument you call a drill?

A. The lower part or point of the drill was about three inches in diameter and about six inches long. This was attached to a rod in sections, which was about one and one-half inches in diameter. I should not wonder if that old rod was on earth now. It was a sort of diamond-pointed drill, made in the shape of one of these soldering irons.

Q. 15. What was the length of the sections of this rod?

A. Probably six or eight feet long. I could not tell exactly. I think there were two or three sections I brought up with me, but we did not use them all, as we did not need them.

Proceedings adjourned until 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

5636 Present: As before.

Examination of CORNELIUS BROWN resumed:

Q. 16. How was the pipe made that you used before you got the gas pipe?

A. Galvanized tin.

Q. 17. What was its diameter?

A. I think it was a three-inch pipe.

Q. 18. Was it made in lengths?

A. It was made in small sections.

Q. 19. About how long was each section?

A. Probably two or three feet long; perhaps three or four feet

Q. 20. The drill or rod was worked down by turning it around and with a lever on top to push it down, was it not?

A. Yes.

Q. 21. And was the drill put on the inside of the galvanized pipe?

A. The drill run inside of the pipe.

Q. 22. And as fast as you forced the rod down inside of the pipe, as you have testified, was the tin galvanized pipe forced down after it?

A. Yes, sir.

5637 Q. 23. And by reason of the stones in the earth and the several obstructions that were met by the drill or rod inside of the tubing, did you find it impossible to get this galvanized tin pipe down?

A. Yes, sir.

Q. 24. And was it for that reason that you abandoned the use of the galvanized tin pipe with the drill or rod inside of it, as you have testified?

A. Yes, sir.

Q. 25. At the time of using this drill or rod on the inside of the tin galvanized pipe was the earth forced out laterally or sideways by the point of the drill, or was it brought up to the surface by any instrument?

A. It pressed it out; it was not brought to the surface.

Q. 26. How deep was the earth penetrated before you commenced to use the pipe that you got at the gas-house?

A. Probably about four feet.

5638 Q. 27. At the time that you went to Byron Mudge to get these tools to make this well or attempt to make it did he say anything to you as to having used them at any other places?

A. He did.

Q. 28. What did he say?

A. He said they had tried them at a couple of places at the upper end of town. I forget now what places they were. He said they had failed on account of the cobble-stone. He said they could work them well enough where there were no stone, but where there were stone they could do nothing with it.

Q. 29. Did he in that conversation say anything about his having made a well on the fair ground with these tools?

A. Yes; he said they had got a well there.

Q. 30. And did you know of that well as being made there while the 76th regiment was encamped there?

A. I saw the well myself.

Q. 31. In that conversation did he tell you that he had attempted to make a well after this plan at Woodruff's, and
5639 had failed by reason of its being stony?

A. Yes; he said they had failed there and at some other place; they could not get a well in that part of the town, it was so stony; at the fair ground it was sand & gravel.

Q. 32. If you had succeeded in getting the tin galvanized pipe down at your place how was the water to be obtained?

A. Why, put in a pump, of course.

Q. 33. Please describe how the pump was to be used and to what pipe would it be attached, if any. Was the pump to be attached to a pipe of either lead or iron, and was this pipe then to be put inside of the galvanized tin tubing and water thus obtained?

5640 A. That was the way I worked it.

Q. 34. Was this plan of putting into the earth first a galvanized iron pipe of about three inches in diameter by the method you have described, and putting on the inside a smaller pipe and attaching to the inner pipe a pump, the method which Mudge communicated to you of making tube wells at the time you applied to him, as you have testified?

A. That is the way we worked it; I do not know whose suggestion it was.

Q. 35. How long was the pipe which you got at the gas-house after you had it put together?

A. I think about eight feet.

Q. 36. After driving the gas pipe how did you obtain water from it?

A. Attached a lead pipe to the pump and let the lead pipe hang down inside of the iron pipe.

Q. 37. What was the size of the lead pipe, as near as you can remember?

5641 A. About an inch or inch and a half.

Q. 38. How much water did you have in the iron pipe?

A. I think we drove it down four or five feet into water.

Q. 39. Was there anything in the space between the two pipes after the lead pipe was put in?

A. I think we put a plug in the top of the iron pipe; bored a hole in it just big enough to let the lead pipe through; this was done to keep out the dirt, &c.

Q. 40. How long did you use the lead pipe in the iron pipe before you put in the plug?

A. We put it in right along; it might have been two or three days.

Q. 41. Did this well excite a great deal of curiosity and did a great many people come to see it? State generally the facts in relation to it.

A. Yes; any quantity of them.

Q. 42. And at that time was the question of tube wells discussed
by the people coming there, and was the similarity and difference of
this method of obtaining water then and there compared
5642 with the method used in Cortland by Mudge and others pre-
vious to that time? Please state what was the conclusion to
which the people generally came at this time on this subject.

A. There were various opinions about it; some thought it would hold out and others thought it would not; I did not consider it anything more than an experiment.

Q. 43. Was it then and there considered by all and by yourself as the first experiment made when the pipe itself was driven directly into the earth without the use of a bar on the inside?

A. That was the first, to my knowledge.

5643 Q. 44. Did Colonel Nelson W. Green have anything to do,
directly or indirectly, with suggesting the driving of this
pipe direct into the earth?

A. No, sir.

Q. 45. When or about when after that did you see a driven-well pipe made of gas pipe, as now ordinarily used, with a pointed end and perforations above the same?

A. The first one that I saw after that was in the cellar of the Schermerhorn block. Mr. Suggett called my attention to it, and I went and saw it.

Q. 46. Who superintended the driving and preparing of this gas pipe used at your place?

A. I superintended it myself.

Q. 47. Who did you have to work for you at that time?

A. James Suggett and Emilus Gurley.

Q. 48. After the making of this well did you have frequent conversations with any one in relation to making a well by using a single gas pipe, as driven wells are now ordinarily made?

A. I did; a number of conversations with Mr. Suggett.

5644 Q. 49. Give the substance of those conversations as near as
you can.

A. Mr. Suggett used to come down to my place very frequently and talk this matter up, and see how the well operated. We found out we could get a supply of water, which nobody thought we could get, and then the query was how to get rid of this lead pipe. We found that we could get hold of the iron pipe and attach the pump directly to that. That was the way we talked it up. He suggested the idea of putting this plug in the end and driving it right down, and we did so. That was about all there was to it, and he went right on and put down the well at Schermerhorn's and several others.

Cross-examination:

C. Q. 50. Have you any means of fixing the exact date when you put down this well?

A. I know that is the year it was put down; the year that
5645 I built an addition to my house.

C. Q. 51. What year was it?

A. In 1862.

C. Q. 52. How do you tell that it was in 1862?

A. I know it was; that was the year that I built over my house.

C. Q. 53. Can you tell what month it was in?

A. The fore part of the season; in June, I should think.

C. Q. 54. Was it before or after the 76th regiment left camp on the fair ground?

A. I forget about that; I think, though, it was afterwards; on reflection I know it was afterwards, because Green had gone away and I went down to see Mudge.

C. Q. 55. How long did the well which you have described continue in use in the condition you have described?

A. Four years certain; it may be there now, for all I know.

C. Q. 56. Whereabouts on your premises was this well situated?

A. In what was then the northeast corner of the building—in the northeast corner of the kitchen. My impression is it was
5646 on the north side of the cistern.

C. Q. 57. When did you leave the premises?

A. I left it in 1864.

C. Q. 58. Who followed you in the possession of the premises?

A. Mrs. Knox—who afterwards married Clinton Shoales; they remained there two or three years.

C. Q. 59. Who next went into possession and how long did he remain?

A. Barny Doud, I think; he remains there still.

C. Q. 60. As I understand you, Mr. Brown, this well was constructed by driving down an iron pipe about three inches in diameter; then a plug was fitted into this, a hole was bored through the plug; then a lead pipe just the size of the hole was inserted and run down into the water, and then a pump was attached to the lead pipe. Is that correct?

A. Yes, sir.

C. Q. 61. What kind of wood was the plug?

A. I do not know.

C. Q. 62. Can you tell whether it was hard or soft wood?

A. I do not know.

5647 C. Q. 63. About how long was the plug?

A. I do not know.

C. Q. 64. Cannot you give any idea of its length?

A. Probably two or three inches long.

C. Q. 65. Did you ever know any other well, just similar to this, to be constructed after that?

A. No.

C. Q. 66. Mr. Suggett was the only person with whom you talked about getting rid of the lead pipe, was he?

A. I talked with the hands there; Elder Gurley & Mr. Davenport were the carpenters; with no one else that I remember.

C. Q. 67. The lead pipe extended down four or five feet, did it not?

A. Yes; it probably did not go clear to the bottom of the other pipe.

Redirect examination:

R. D. Q. 68. How much galvanized tin or iron pipe did you get of Mudge?

A. Quite a chunk of it; six or eight feet long, I should think.

5648 R. D. Q. 69. Did Byron Mudge have anything to do, directly or indirectly, or did he in any way make known or suggest the abandoning of his method of making a well by using galvanized tin pipe with a lead pipe inside to draw the water with, and adopting, in the place and stead thereof, the driving of this gas pipe, prepared as you have testified, as you did at your place when you made this well, as you have testified?

A. No.

Recross-examination:

R. C. Q. 70. Give the names of all the persons that you can testify saw and examined this well which you have testified you constructed.

A. I cannot tell the names; half the town was there.

R. C. Q. 71. Can you mention a single name? And, if so, mention all the names you can.

A. I cannot; most everybody on that street.

R. C. Q. 72. And you cannot give a single name?

5649 A. Yes; there was old Ike Fairchilds and Zal. and Jim Fairchilds, McFarlan Freir, Jim Schermerhorn, and Parker.

2d redirect examination:

R. D. Q. 73. Did so many people come to see this well, whose names you cannot now remember, that you considered it a nuisance and had to shut down on them?

A. Yes, sir.

CORNELUS BROWN.

Subscribed and sworn before me this 28th day of September, 1880.

[L. S.] M. STANLEY BIERCE,
Notary Public.

5650 THURSDAY, *November 18th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: George L. Waters, Esq., for complainants; John W. Suggett, Esq., for defendant.

JAMES SUGGETT, being called for defendant and cautioned and sworn, testified as follows:

Q. 1. State your name, age, residence, and occupation.

A. James Suggett; aged 55 years; residence, Cortland, N. Y., and occupation, a farmer on a small scale.

Q. 2. About how long have you resided in Cortland?

A. About 29 years.

5651 Q. 3. In the year 1861 did you reside in Cortland?

A. I did.

Q. 4. Did you know Byron Mudge in that year?

A. I did.

Q. 5. Did you assist him in making or attempting to make a well or wells by means of pipes in that year?

A. I did.

Q. 6. Where first?

A. Henry Woodruff's.

Q. 7. What season of the year was it that you helped Mudge at Henry Woodruff's?

A. I think it was some time towards fall.

Q. 8. What tools do you now remember that were used at Henry Woodruff's on this occasion?

A. An iron bar put together in sections, with a lever on it to turn it around with. We had a sheet-iron pipe—I should think a galvanized sheet-iron pipe, or zinc, made and put together some- like stovepipe.

Q. 9. What was the bore of the galvanized sheet-iron or zinc pipe, as you remember?

A. I think, to the best of my recollection, it was three inches and a quarter.

5652 Q. 10. About what was the length of each section of this galvanized sheet-iron or zinc pipe?

A. I should think it was fifteen or eighteen inches long.

Q. 11. What did you first do towards making this well at Woodruff's?

A. The best of my recollection is now that the hole was just started; they were just getting the bar into the ground when I went there.

Q. 12. How was this well attempted to be made?

A. By working down a bar; lifting it up and chucking it down and turning it around with a lever and then putting on this sheet-iron or zinc pipe in sections and trying to work it down along with the bar. We sometimes withdrew the bar and put a block of wood on the pipe and struck on it lightly with a hammer to try to get it down; the pipe, being weak, bruised up, and we found it very difficult to get down.

Q. 13. Where did you use the bar?

A. Inside of the pipe.

5653 Q. 14. Did you succeed in getting this pipe down to water?

A. We did not.

Q. 15. Why?

A. We twisted our rod off in the ground.

Q. 16. And did you then abandon the attempt to make this well?

A. We did.

Q. 17. Who superintended and gave you the directions as to the method you should follow in the making of this well?

A. Byron Mudge.

Q. 18. How long do you remember that you were at work in trying to get down this sheet-iron or zinc pipe?

A. To the best of my recollection, we were a part of two days.

Q. 19. Was Byron Mudge connected with the 76th regiment at this time?

A. I should think he was.

Q. 20. What makes you think so?

A. He would come in the morning and give his orders and come at noon and would have to go onto the ground among the soldiers.

Q. 21. Did he have a uniform on?

A. To the best of my recollection he had.

5654 Q. 22. In case you had succeeded in getting this sheet-iron or zinc pipe down, what was the plan or how was the water to be got out?

A. He stated that he had what he called a gravel or sand pump to pump it out with first if we got it down into the water, and then, when we got it cleaned out, to put in a lead pipe soldered on a common cistern pump.

Q. 23. Was the place where you attempted to make this well a hard or easy place to make a well as regards stones and obstructions?

A. I should call it a very hard place.

Q. 24. Did you act, in attempting to make this well at Henry Woodruff's, entirely under the orders of Byron Mudge, or did you deviate from them in any way and use your own judgment?

A. I worked from his orders.

Q. 25. After the abandonment of this well at Woodruff's did you the same year again assist Byron Mudge in making another well?

A. I did, soon after.

Q. 26. Where?

5655 A. At Orville H. Seymour's.

Q. 27. How was that well constructed?

A. About the same as we tried at Henry Woodruff's; all the difference was that he had a dug well that had caved in and we put a rod and pipe down by the side of the wall of the old dug well that had caved in and got it down eighteen inches or two feet into water.

Q. 28. Did you use galvanized sheet-iron or zinc pipe at Seymour's?

A. We did.

Q. 29. Where did you use the rod in getting down the galvanized sheet-iron or zinc pipe at Seymour's?

A. Inside of the pipe, working the pipe and the rod down together.

Q. 30. After the galvanized sheet-iron or zinc pipe was got down at Seymour's what was the method employed or to be employed in getting the water?

A. Mr. Mudge was going to pump it out with the gravel or sand pump and then insert a lead pipe soldered on a cistern pump to draw the water with.

5656 Q. 31. Was this well at Seymour's made entirely under the orders and superintendence of Byron Mudge?

A. It was.

Q. 32. You have spoken of some soldiers on the grounds. What grounds do you refer to and what soldiers?

A. The soldiers on the fair ground that Colonel Green was in command of at that time, I should think.

Q. 33. Where were the premises of Orville H. Seymour where this well was made?

A. On the north side of Railroad St., towards the depot.

Q. 34. What was Mr. Seymour's business?

A. He was a minister here at Cortland, I believe.

Q. 35. After the Seymour well where next did you make or assist in making a tube well?

A. At Cornelius Brown's.

Q. 36. When or what year do you remember that you worked at Brown's?

A. To the best of my recollection I think it was some time in the spring of 1862.

5657 Q. 37. Are you somewhat acquainted with the different kinds of soil in different parts of Cortland village, as regards the ease or difficulty with which a tube well is made?

A. I am.

Q. 38. Will you please compare and state as to how it would be in regard to making a well at Woodruff's and Seymour's?

A. I should think it would be easier to make a well at Seymour's, as the water is nearer by and the ground is softer.

Q. 39. Returning now to Cornelius Brown's—what did you do there?

A. Mr. Brown dug down almost to water, I should think, and then we tried to get a sheet-iron or zinc pipe down in the hole where he had dug.

Q. 40. How did you work in trying to get down this sheet-iron or zinc pipe at Brown's?

A. The same as we did at Henry Woodruff's and Orville H. Seymour's.

Q. 41. Whose tools did you use at Brown's?

A. They were called Mr. Mudge's, I believe.

5658 Q. 42. Were they the same that you had used previously at Woodruff's and Seymour's, under the direction of Mr. Mudge?

A. They were not the same that we used at Mr. Woodruff's. The rod was not the same. We twisted the rod off in the ground at Mr. Woodruff's and left part of it. I think it was the same used at Mr. Seymour's that we had at Mr. Brown's, for it was a larger rod than we had at Mr. Woodruff's.

Q. 43. How did you use the rod at Brown's?

A. We had it inside of the pipe the same as we had had at these other places, but, the ground being hard, we failed to get it down. When we undertook to draw the rod out of the pipe we drew the pipe, too. A part of the bottom end of the pipe was worn off or bent in, being so slender. "Throw it out of the window," says Mr. Brown; "I won't have no more to — with it."

Q. 44. After you had ceased to use the sheet-iron pipe what did you then do?

A. I advised Mr. Brown to go to the gas works and see if
5659 he could get some iron pipe.

Q. 45. What was done?

A. He went there and got some cast-iron pipe, I should think; he got three pieces; I should think each was about two feet long. We took them over to the machine shop and got the ends turned off square. We then took them to the blacksmith shop and had a band iron shrunk around them so as to keep them together; we then had about six feet of pipe; we then took it over to Mr. Brown's and put it into the hole where we had been at work, and put the drill that Mr. Brown got of Mr. Mudge inside of the pipe. We worked down the drill and pipe together as far as we could. We then drew out the drill and drove down the pipe with a battering ram—a long stick of timber; we then put the drill inside again and drew it out and drove it down in that manner.

Q. 46. After this last iron tubing had been driven into the
5660 earth, as you have stated, how was the water obtained or to
be obtained from it?

A. It was to be pumped out with this sand or gravel pump of Mr. Mudge's, and then a lead pipe inserted in the hole and water drawn with a cistern pump.

Q. 47. Was this the first departure that you knew or had any knowledge of in any way, by hearsay or otherwise, from using sheet iron, zinc, or tin tubing, as you have testified was used at Woodruff's and Seymour's?

A. That was the first iron pipe that I had ever seen used here in America—I mean the iron pipe used for that purpose at Brown's.

Q. 48. After the making of the well at Brown's where next did you make a tube well that you now remember?

A. At James Schermerhorn's.

Q. 49. Where was that?

A. In Cortland village here.

Q. 50. Where was Cornelius Brown's about which you have testified?

A. In Cortland village, on Port Watson St.

Q. 52. What year was it that you made the well at Schermerhorn's?

5661 A. I should think it was the same year that I made the
well at Mr. Brown's. To the best of my recollection, it would
be some time in the summer of 1862.

Q. 53. Please state how you made that well at Schermerhorn's.

A. I made it the same as I made Mr. Brown's, but I used wrought-iron gas pipe.

Q. 54. What was the diameter of the wrought-iron gas pipe used at Schermerhorn's?

A. I think it was about three inches and a quarter. I had it cut in about five-foot sections.

Q. 55. What was the diameter of the pipe used on the inside to draw the water with?

A. I believe it was about — inch and a quarter.

Q. 56. How was the pump attached to the inside pipe in the Schermerhorn well?

A. I could not state. I think it was either soldered or screwed onto the pipe.

Q. 57. Whose tools or rods did you use in making this two-pipe well at Schermerhorn's? 5662

A. They were called Byron Mudge's.

Q. 58. At or about this time did you determine upon changing this way of making wells by two pipes?

A. I did.

Q. 59. In pursuance of or following up that determination, what did you do?

Proceedings adjourned until 2 o'clock p. m.

2 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: George L. Waters, Esq., for complainants; John W. Suggett, Esq., for defendants.

Examination of JAMES SUGGETT resumed:

Question 59 repeated.

A. I changed it so that I made a well with one pipe.

Q. 60. What were the reasons for making a well with one pipe instead of two, as you had previously done? 5663

A. The reason was that two pipes cost too much. I understood from Mr. Parker that the outside pipe cost about seventy cents a foot. Mr. Parker was the agent of Mr. Schermerhorn. At that time all we got for digging and stoning a well was one dollar a foot, and the two pipes would cost as much as we got for digging a well.

Q. 61. How did you prepare your pipe to make the single-pipe well?

A. I prepared it with a point at the bottom of the pipe, going into the bottom of the pipe about two inches, and the bottom of the pipe resting on a shoulder in the point, and a rivet through the pipe and point to hold it in. I had holes drilled in the pipe—three to four rows, and about fifteen to twenty holes in a row; I think the holes were about a quarter of an inch in diameter.

Q. 62. What was the kind of pipe used, and what was its bore?

A. It was called inch gas pipe, galvanized.

5664 Q. 63. Where did you make this single-pipe well?

A. I made it down cellar in a grocery store; G. N. Copeland engaged me to put it down there.

Q. 64. How did you make this well? Go on and give a description of it.

A. I drove down a bar that I bought of Mr. Mudge; I withdrew the bar and put in the pipe that we have described; I took the coupling off the pipe, soldered it onto the pump, and screwed on the pump and went to pumping.

Q. 65. Was the pump attached directly to the pipe that was inserted in the ground?

A. It was.

Q. 66. Did the pipe in the ground have the earth tightly about it?

A. I should say it did; as any pipe would drove into the ground.

Q. 67. Did this well furnish a supply of water?

A. It did.

5665 Q. 68. How long was it used or has it been in use that you know of?

A. It was used for a number of years and is in use now, for anything that I know.

Q. 69. What year was it that you made this single-pipe well in Copeland's cellar?

A. The best of my recollection is that it was in the fall of 1862.

Q. 70. Who assisted you in making it, if anybody?

A. George L. Waters.

Q. 71. Is that the same George L. Waters who is now present as counsel for the complainants, as you understand, in this case?

A. I should say it is.

Q. 72. You say that you bought the bar of Mudge; how long before the making the single-pipe well and for what reason did you buy it of him?

A. The best of my recollection is that I bought it the same day I commenced to make the well; the reason I bought it was so 5666 that I could use it as I had a mind to: this drill was screwed together in sections about 4 feet long; when Mr. Mudge owned it we had to lift it up and let it drop and then turn it around with a lever; every time we raised it up the hole would fill up, so I bought it so that I could drive on it and keep what I got and get more; Mr. Mudge did not wish to have it drove on, for he stated that it would spoil the thread where it was screwed together; the part that I drove on I kept for the upper end and put in a fresh section all the way and I liked the driving a great deal better.

Q. 73. What was the diameter of the rod which you bought of Mudge?

A. I think it was called inch and three quarters.

Q. 74. What was it made of?

A. It was made of common wrought iron, I should think.

Q. 75. You say the sections were about four feet long; how was one fastened to the other?

A. They were screwed together with couplings.

5667 Q. 76. What kind of a lever was it that was used to turn the bar around, and how was it used on the bar?

A. It was an iron clasp with a set screw to fasten it to the bar, with two handles, one on each side like auger handles; when I got it of Mudge one was a wooden handled bolted on; I think I had a piece of iron substituted.

Q. 77. In using this bar, prior to the time that you drove on it in Copeland's cellar, was a part of the operation of getting it into the ground to put on this lever and two men get hold of it, one hold of each handle and run around—pressing down?

A. That was part of the way of getting it down, and then lifting it up and letting it drop.

Q. 78. Was Byron Mudge present, or had he any connection with the making of the Brown well?

A. Not that I know of; I did not see him there.

Q. 79. How was it as to the Schermerhorn well?

5668 A. I did not see him there

Q. 80. Was this method of making a well by a single pipe, as you made the one in Copeland's cellar, original with you, as far as you knew?

A. I was the first one, so far as I knew.

Q. 81. After the making of the single-pipe well in Copeland's cellar did you then make it a business to make wells in that way during that year and for several years thereafter?

A. I did.

Q. 82. Did you make any bargain with Mr. Copeland as to your pay for this-single pipe well: and, if so, what was that bargain?

A. The bargain was that he was to pay me one dollar per foot if it worked satisfactorily; and, if not, I was to take it out and have nothing.

Q. 83. How did you make the other single-tube wells that you made in the years 1862 and 1863, after you made this single-tube well for Copeland?

A. I made them about the same. All the difference — I changed my rod that I had of Mr. Mudge where I found a difficulty 5669 in getting it out and driving it where it was coupled together. I changed it for two rods—one about ten feet long and the other about fifteen—and I did away with the lever that I had on and used to use my gas tongs to turn the rod with instead of the lever.

Q. 84. Will you please describe now in a general way the process you used in constructing single-pipe wells during the years 1862 and 1863, after you constructed the single-pipe well in Copeland's cellar.

A. I first drove down a short rod. I withdrew it and then put a long one in if it was necessary. I then put in a pipe and drove that if it was necessary to drive it further than I drove the rod. I sometimes drove on the coupling on the pipe and kept the coupling as long as it would last, and then I took a new one if it was necessary. The pipe had a pointed end on it sometimes, the same as I 5670 described it in Copeland's cellar. Sometimes I used cast-iron points set in and resting on a shoulder, as I have described. Some had a wrought-iron point welded in the pipe. I had from seventy to eighty about quarter-inch holes in the pipe. Sometimes I had long holes or what we called slots cut in the pipe to let the water in more freely.

Q. 85. After you had got the pipe in how did you get the water?

A. I screwed a pump on and went to pumping.

Q. 86. In these wells was the earth compacted tightly about the pipe?

A. I should think it was as it would be about any pipe that was drove into the ground.

Q. 87. Where were your operations in making wells in 1862 and 1863 confined mostly—that is, in what places?

A. Mostly in Cortland and Homer.

Q. 88. Did your business in making wells require you to hire help?

A. I did some.

Q. 89. After you had tested this method of making a well
5671 by a single pipe, as practiced at Copeland's, did you make application for a patent?

A. I did.

Q. 90. Who acted as your advisers and solicitors in the matter of obtaining that patent?

A. Mr. Charles Foster and Mr. R. Holland Duell.

Q. 91. Do you remember when the application for it was completed or about the time and sent to the Patent Office at Washington?

A. I could not say that I doo—not within a few days; it was some time in the fall of 1863.

Q. 92. Do you remember the date of that patent?

A. I think I do.

Q. 93. What is it?

A. I think it is March 29th, 1864.

Q. 94. After obtaining that patent, did you continue to make single-tube wells for several years?

A. I did.

Q. 95. In the making of those wells after you obtained your patent will you please describe how you made them?

5672 A. I made them about the same as I have already described before.

Q. 96. After the issue of that patent, March 29th, 1864, did you have handbills struck off giving notice thereof?

A. I did.

Q. 97. Have you got one of these handbills?

A. I have.

Q. 98. Will you produce it?

A. I will.

(Witness produces handbill.)

Defendant's counsel here requests the notary to copy the handbill at length upon the record.

The following is a copy of the text of the handbill referred to:

> "*Bored Wells.*
>
> "The subscriber is now ready to make James Suggett's improved bored wells and put the same in use. He will dispose of town
> 5673 and county rights. Persons are cautioned against making or using his improvement without his permission.
>
> "Cortland, Sept. 4, 1884.
>
> "JAMES SUGGETT."

"We hereby certify that we have in use on our respective premises one of Mr. James Suggett's improved bored wells, and that it gives entire satisfaction. We cheerfully recommend it as the cheapest and best well in use and affording a constant supply of water.

"Cortland village, April 11, 1864.

"D. C. McGRAW, *Clerk of Cortland Co.*
"GARRISON & COLLINS, *Merchants.*
"L. DEXTER, *Restaurant Keeper.*
"HANIN & SHIRLEY, *Restaurant Keepers.*
"G. N. COPELAND, *Merchant.*
"F. E. KNIGHT, *Civil Engineer.*
"C. BROWN, *Inn Keeper.*
"THOS. ALLPORT, *Builder.*
"J. A. SCHERMERHORN,
"*Counsellor-at-Law,* (has 3 wells)."

Defendant's counsel here offers as an exhibit in evidence the original handbill, of which the foregoing is a copy.

5674 Original handbill received in evidence and marked "Defendant's Exhibit No. 6, Cortland, N. Y., November 18th, 1880, M. Stanley Bierce, notary public."

Q. 99. Did you post up and circulate generally through the village these handbills, one of which is shown by the exhibit next above referred to?

A. I did.

Q. 100. After you obtained your patent in what places mostly did you make wells?

A. Mostly in Cortland, Homer, Moravia and Elmira.

Cross-examination:

C. Q. 101. Prior to your coming to Cortland where did you live?

A. I lived in England.

5675 & 5676 C. Q. 102. Where?

A. At a place named Colton, near the city of York.

C. Q. 103. At the time you began to put down wells for Mudge, as you have described on your direct examination, what was your business?

A. I was a laborer, working at almost everything and anything.

C. Q. 104. Have you any sons?

A. I have.

C. Q. 105. How many?

A. One.

C. Q. 106. Is he married or single?

A. Single.

C. Q. 107. Where does he reside?

A. He resides in Cortland.

C. Q. 108. In whose family does he board?

A. He boards with me.

C. Q. 109. What is his age?

5677 A. About 27.

C. Q. 110. What is his name?

A. John William Suggett.

C. Q. 111. Is he the same John William Suggett who, as counsel for the defendant in this action, has examined you on your direct examination?

A. I should say he is.

C. Q. 112. Have you ever been sworn before as to the matters you have testified to on your direct examination?

A. I think I have on some of it.

C. Q. 113. In what cases?

A. In the case of Andrews *et al. vs.* Carman; also in the interference case between Mudge, Green, and myself.

C. Q. 114. When were you sworn in the interference case?

A. I could not tell without I looked it up some; I think probably it was in 1866.

C. Q. 115. When in the Carman case?

5678 A. Some seven or eight years ago; I know I was coming down with a fever then and was scarcely able to sit up.

C. Q. 116. Have you recently read over the testimony which you gave in either of those cases?

A. I have not.

C. Q. 117. Has it been read over to you?

A. I think some of it has—a very little.

C. Q. 118. When?

A. Some of it to-day.

C. Q. 119. Before your examination commenced or after?

A. Some before and some after.

C. Q. 120. Who read it to you?

A. My son John read some of it and my daughter read some.

C. Q. 121. Where were you when this was read to you?

5679–5683 A. I was at home when they read a part of it and in Shankland's office when the rest was read.

5684 MONDAY, *November 22nd,* 1880—9 o'clock a. m.

Convened pursuant to adjournment.

5685 Present: George L. Waters, Esq., for complainants; John W. Suggett, Esq., for defendant.

Cross-examination of JAMES SUGGETT resumed:

C. Q. 122. As I understand you, Mr. Suggett, the first knowledge that you had of tube wells was that derived from the unsuccessful attempt to make a well at Henry Woodruff's. Is that so?

A. It was not, for I had had knowledge before that of tube wells.

C. Q. 123. What knowledge had you had before that of tube wells?

A. I had knowledge, when I was digging a well, that if I could get a pipe down I could make a well without digging.

C. Q. 124. Did you ever make a well by putting a pipe down previous to that?

A. I did not.

C. Q. 125. Did you ever see one made previous to that?

A. I believe not.

C. Q. 126. Did you ever hear of one being made previous to that?

A. I do not know that I had, in this country.

C. Q. 127. Had you in any other country; and, if so, by whom and where?

5686 A. Well, I could not say whether I have or not; it is so long ago since I lived in England, but I have seen them pumping water up from the coal mines with pipes there.

C. Q. 128. Please describe the apparatus with which you saw them pumping water from the coal mines, so far as it was in any manner similar to tube wells.

A. Well, it was pumped by steam power, and I should think there were two pumps, worked up and down like a scale beam, and a great quantity of water was pumped out.

C. Q. 129. The pipes to which the pumps were attached did not extend into the earth, but simply into the excavation in the mines, did they?

A. I could not say. I was not down in the mine to see how they were fixed.

5687 C. Q. 130. Then, Mr. Suggett, do you wish to be understood that previously to the time of the attempt to make the well at Henry Woodruff's that while you had never seen nor heard of a tube well, yet you had a thought in your mind that a well might be made by means of a pipe extending into the earth, but had never put your thought to a test nor carried it into execution?

A. I had not, but I always meant to. I had had some experience in England in digging a large hole near the seashore. Myself and five or six others worked at digging a hole at a place named Redcar. It was dug for the purpose of laying the foundation for a turn-table to turn the engine and tender on. We dug it deeper than was necessary on account of water and sand, and filled it up with lime and gravel to make a foundation. There was a great deal of water came in this hole, and we had to have a wooden pump 5688 in to pump it night and day. I took my turn on the pumping, and I thought about that when I came to this country and commenced to dig wells. I thought some time or other I would try to make a well without digging.

5689 C. Q. 131. You have testified to the suggestion of your son, which I deem to be highiy improper, but if, after his suggestion thus made, you desire to make any further answer to the last question, please do so now.

A. All the further answer that I have to make — it that I always calculated to try this experiment; before the experiment at Woodruff's I had experimented some; I drew water through hollow reeds.

C. Q. 132. With what did you draw water through hollow reeds?

A. With my mouth.

C. Q. 133. Had you then, at the time of the attempt to make the Woodruff well, ever heard of the tube well made at the residence of Col. Nelson W. Green in Cortland or the one made on the fair grounds in the camp of the 76th regiment?

5690 A. I do not recollect that I had.

C. Q. 134. Previously to the attempted making of the Woodruff well had you not for years been engaged to a considerable extent in making wells in Cortland, and did you not make them in the ordinary manner of dug and stoned wells?

A. Well, yes; I had helped to dig and stone wells before that.

C. Q. 135. Did you not — one occasion, before trying to make a well at Woodruff's, see at the residence of Colonel Green in Cortland a frame-work, and were you not informed by Colonel Green's 5691 wife that that frame-work was used in sinking a tube well, or this in substance, and did you not then examine this frame-work?

A. I saw the frame-work from the road; I did not know what it was for; I went home and told my wife that I thought Mr. Green had got something like a gallows to hang men up if they did not act right; I was not informed by Mrs. Green as to the purpose of this frame-work; I have no recollection of ever speaking to her about it; I did not then examine this frame-work; I never went inside, off the road.

C. Q. 136. Who employed you to work on the attempted well at Woodruff's?

A. I could not state positively; to the best of my recollection, it was Mr. Mudge, but I think that Mr. Woodruff paid me.

C. Q. 137. Did you testify in the Carman case that Henry Woodruff employed you?

5692 A. I could not say whether I did or not, or whether Mr. Woodruff employed me or not.

C. Q. 138. Did you while thus at work at Woodruff's, in attempting to make this well, simply execute the orders of Mudge, or did you carry out your own ideas in the attempt to construct the well?

A. I tried to execute the orders of Mr. Mudge, but there might be some things that I carried out of my own idea, Mr. Mudge not being there all the time.

C. Q. 139. When was this Woodruff well attempted to be made?

A. I think it was some time in the fall of 1861, when the 76th regiment was on the fair ground here.

C. Q. 140. Can you not give the month?

A. I do not know that I could; I did not keep any record of it.

C. Q. 142. At this time was your employer, Byron Mudge, as you understood it, a subordinate officer under the command of Colonel Nelson W. Green in the 76th regiment?

5693 A. Well, he seemed to have soldier's clothes on, but I do not know what office he held, as I never asked him, and I do not know that he would have told me if I had asked him.

C. Q. 143. And was he then, as you understood it, a portion of the time performing the duties of a soldier in the 76th regiment?

A. Well, I should think he was up there backward and forward, but what duties he had I could not say nor what office he held.

C. Q. 144. How long after the attempt at Woodruff's before you made your application for a patent?

A. I should think it would be about two years, probably.

C. Q. 145. And how long was it after the putting down of the well in Copeland's cellar before you made your application for letters patent?

A. I should think about a year, probably; it might be more or it might be less.

C. Q. 146. Was your first application for letters patent refused?

5694 A. I think it was.

C. Q. 147. Do you know what your patent was entitled?

A. An improvement in pumps for bored wells; date, March 29th, 1864.

C. Q. 148. After you procured your patent did a controversy arise over the invention which resulted in the interference case between you, Byron Mudge, and Nelson W. Green, wherein, as you have here testified, you were once sworn?

A. It did.

Proceedings adjourned until 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

5695 Present: George L. Waters, Esq., for complainants; John W. Suggett, Esq., for defendant.

Cross-examination of JAMES SUGGETT resumed:

C. Q. 149. And was that interference case carried on until a decision therein was had by the United States court of last resort in interference cases?

A. I suppose it was carried on until a decision was obtained, as it is now, as far as it could be in an interference case.

C. Q. 150. And did you, on the trial of that interference case, testify, and were you represented in the case by able counsel?

A. I suppose I was so represented and did testify in the case.

C. Q. 151. In that interference case, as you understood, did 5696 the supreme court of the District of Columbia decide that Colonel Nelson W. Green first put into practice the conception of making a driven well, and that he is entitled to a patent for the broad claim for sinking wells by driving down a pump or a rod without removing the dirt upward?

A. I think they did, something similar to that; I could not say whether it was in the same words as that.

C. Q. 152. Was that the substance of the decision as you understood it?

A. Yes; I should think it was.

C. Q. 153. Will you please to give a list of all the wells that you put down prior to April 1st, 1864, and subsequent to the attempt at Henry Woodruff's, giving them in the order in which you put them down?

A. I do not believe I could.

C. Q. 154. Do it as nearly as you are able.

A. I cannot, without reflecting a good while.

5697 C. Q. 155. I will not wait for you to reflect at the present, but will ask you, Mr. Suggett, if you will, before you get through with your testimony, make and produce a list of all wells that you will swear positively that you made prior to April 1st, 1864. Will you do so?

A. I will do the best I can, but I cannot state that I will make a list of the whole of them.

C. Q. 156. Was the well at O. H. Seymour's, the well at Cornelius Brown's, and the well at James A. Schermerhorn's, each of which you have mentioned on your direct examination, the only tube wells which you put down before you put down the well in G. N. Copeland's cellar.

A. They are the only ones that I think of now, except the trial at Henry Woodruff's; that I put down or helped to put down.

C. Q. 157. Where was the well of O. H. Seymour located?

A. To the best of my recollection, it was in the southeast corner of what might be called the wood-house of his residence, on Railroad St.

5698 C. Q. 158. Was he at that time the Presbyterian clergyman located at Cortland?

A. I think he was, but could not be positive.

C. Q. 159. And does he now reside, as you understand, at Port Byron, Cayuga Co., N Y.?

A. I do not know where he resides any more than what Mr. Waters states now. I do not know as I have seen him since he left Cortland.

C. Q. 160. Was the well which you made in Seymour's woodhouse, or assisted in making, in sight from the street?

A. To the best of my recollection, it was not.

C. Q. 161. Was it a successful and permanent well?

A. I think not. I think I heard of its afterward failing or drying up.

C. Q. 162. How long were you at work there in assisting to make that well?

A. To the best of my recollection, we were but half a day.

C. Q. 163. Who aided you?

A. Mr. Mudge bossed it. I could not say whether Mr.
5699 Seymour helped any or not, but I think he was in and out and around there.

C. Q. 164. Where next did you assist in putting down a well?

A. To the best of my recollection, at Cornelius Brown's.

C. Q. 165. That was the place where you used the gas pipe, was it not?

A. That was the place where we used cast-iron pipe; I should think it was.

C. Q. 166. Did you ever have any personal knowledge of any successful well which was permanent made with the sheet-iron tubing?

A. I had not had any experience in making that kind of a well except this one at Seymour's, and that I thought would be a failure because we did not get it deep enough into the water; but I think that in soft ground, where the sheet-iron tubing can be got down, I can see no reason why it would not make a well as well as any other tubing as long as it would last.

5700 C. Q. 167. Question 166 repeated.

A. No; I did not know of any other at that time made with that kind of tubing.

C. Q. 168. Where was this well made for Cornelius Brown located?

A. It was under the floor in a room at the back part of his building. I should think it was pretty near the center of the room.

C. Q. 169. What was the room used for?

A. I could not say. The building was not done off. It might be the kitchen.

C. Q. 170. Was the well in sight from the street?

A. I should say not.

C. Q. 171. Where did you get the gas pipe there used?

A. I did not furnish the gas pipe. Mr. Brown got it.

C. Q. 172. Do you know where he got it?

A. I will not be positive. The best of my recollection is that he got it somewhere around the gas works.

C. Q. 173. How many sections did you use of the gas pipe?

A. The best of my recollection is that we used three. They were calculated to be about two feet long each. Some might have been more and some less.

5701 C. Q. 174. How far did you drive this gas pipe?

A. I think we drove it the length of it, probably. Whether we dug down any I cannot state; it is so long ago.

C. Q. 175. Were you at work for Mr. Mudge there, as you had been in the making of previous wells?

A. I believe not.

C. Q. 176. Had Mr. Mudge anything to do with the making of that well?

A. I think not. I do not recollect of seeing him around there at all.

C. Q. 177. Where did you get the pump and the inside pipe?

A. I did not get them. Mr. Brown got them. I think likely he got them of Mr. Mudge, but do not know. He got the sheet-iron pipe, and then he got this gas pipe afterwards.

C. Q. 178. Was the lead pipe fastened to the pump; and, if so, how?

A. I believe Mr. Brown had that fixed. I do not know that I could state now how it was fastened.

C. Q. 179. How was the lower end of the lead pipe prepared?

5702 A. I do not know that I could tell, for, as I stated, I believe Mr. Brown fixed that.

C. Q. 180. Was the well constructed under your directions or under Mr. Brown's?

A. I believe it was under mine; I think I took charge of it.

C. Q. 182. In the constructing of the three two-pipe wells which you made or assisted in making did the outer pipe extend farther into the earth than the inner pipe, or otherwise?

A. I could not state, as I do not know as I had anything to do with putting in the inside pipe, but I should think the outside pipe would have to extend as low as the inside pipe; if not, it would be apt to draw gravel and sand.

C. Q. 183. I do not ask you your theory, but I ask you if you know which did extend the farther into the earth, the outside or the inside pipe, in any of the wells you made or assisted in making?

A. I do not; in Seymour's or Brown's or Schermerhorn's.

5703 C. Q. 184. Were those three all the two-pipe wells which you made or assisted in making?

A. I think they were not.

C. Q. 185. What others did you make, and where and when?

A. Well, I think I put down a two-pipe well for Professor Carver, the then principal of the Cortland Academy, at his residence on Vinette St., in Cortland village, on the north side of the street, near the railroad; it may be that it was for Mr. Leonard Bradford; I think he owned the house.

C. Q. 186. When did you put that well in?

A. The best of my recollection is that it was after I put down the well in Copeland's cellar.

C. Q. 187. How long after?

A. I do not know whether it was one year or two after; it might be six months or it might be longer.

C. Q. 188. What material were the pipes made of that you used in the corner well?

5704 A. I think the outside pipe was of cast-iron and the inside pipe of wrought-iron gas pipe.

C. Q. 189. Which extended the further into the earth?

A. I should think both about the same.

C. Q. 190. Do you know positively?

A. The only way that I know is that I should be likely to put the inside pipe in as deep as the other in order to get all the water there was, and I probably measured it so as to put it in as deep as the outside pipe.

C. Q. 191. Have you now mentioned all the two-pipe wells which you made or assisted in making or had personal knowledge of being made?

A. I have not.

C. Q. 192. Name the others.

A. I assisted in making one for William Lang on Merrick St. I do not recollect of any more at present.

5705 C. Q. 193. When did you assist in making one for William Lang?

A. To the best of my recollection, it was after the Carver well last mentioned was made, but I do not know as I could state the time.

C. Q. 194. About how long after the Carver well was made was this Lang well made?

A. Well, it might be one year and it might be two.

C. Q. 195. Of what materials were the two pipes made which were used in the Lang well?

A. The same material as used in the Carver well.

C. Q. 196. How came you to put down these two two-pipe wells after you had made the Copeland single-pipe well?

A. I could not say. I think likely it was these men's notion for whom I put them in to have them so.

C. Q. 197. Returning now to the Cornelius Brown well, was
5706 there any plug put in the end of either the lead pipe or the
gas pipe?

A. I think not in the iron pipe; the lead pipe I did not have anything to do with.

C. Q. 198. Was there anything in the space between the two pipes at the upper end of the iron pipe?

A. I could not say, for I do not know that I saw it after it was fixed there.

C. Q. 199. Then you cannot testify, can you, Mr. Suggett, whether or not the air could pass freely between the two pipes from the surface to the water?

A. No; I could not on that.

C. Q. 200. The next well that you put down was for James A. Schermerhorn, was it not?

A. Yes.

C. Q. 201. How long was that after you put down the Brown well?

A. I think it was probably three or four months.

C. Q. 202. Of what material were the two pipes which you used there?

A. At Schermerhorn's the outer pipe was a common wrought-
iron gas pipe about three inches and a quarter bore. The
5707 inside pipe was inch-and-a-quarter galvanized wrought-iron
pipe, to the best of my recollection.

Proceedings adjourned until Tuesday, November 23d, 1880, at 9 o'clock a. m., at this place.

TUESDAY, *November 23d*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: George L. Waters, Esq., for complainants; John W. Suggett, Esq., for defendant.

Cross-examination of JAMES SUGGETT resumed:

C. Q. 203. How were they prepared at the lower end?

A. The best of my recollection is that the large pipe was open; I do not know that I saw how the other pipe was prepared; if I did I have no recollection of it now.

C. Q. 204. Were either of them pointed or perforated at the end?

5708 A. The large one I do not believe was, and the small
one, as I stated before, I do not recollect anything about.

C. Q. 205. What was the object of the outer pipe in that Schermerhorn well?

A. Well, I do not know as I could really state, but I suppose it was because we had made one somewhat like it at Mr. Brown's; Mr. Parker wanted one something like it and talked with me about it.

C. Q. 206. Did the outer pipe serve any useful purpose that you know of?

A. I think it did when we wanted to make a well of that kind, with two pipes.

C. Q. 207. What purpose, and what was its use?

A. The purpose was that it made it the same as a wall as it would in an open well; we could not have put the inside pipe down unless we had a place to put it in the other pipe when there was no point on the inside pipe, and I do not know that there was any point on it.

5709 C. Q. 208. You have testified that there was no point on the outside pipe; could you not have got down the inside pipe as easily as you could the outside pipe?

A. We could not.

C. Q. 209. Aside from the fact that the outside pipe served the same purpose of a wall in an open well, and aside from the fact that the outer pipe facilitated the getting down of the inner pipe, did the outer pipe serve any useful purpose in the well?

A. All I can state about that is that it made a place to put down the inner pipe; I do not think we could have got down an inch pipe without being pointed, unless we had put it inside of the other one; we had to drill inside of the outside pipe; I do not believe we could have got a rod down on the inside of an inch-and-a-quarter pipe sufficiently strong to couple it together as the other was.

C. Q. 210. What was the purpose of the inside pipe?

5710 A. I suppose the inside pipe was to draw the water.

C. Q. 211. Why did you not draw the water from the outside pipe?

A. We had not got as far along as that then; I think I was at work for Mr. Parker by the day; I thought that two pipes cost too much at that time and thought that I would reduce it to one and make the experiment at my own expense.

C. Q. 212. Have you now given all the reasons that you know of why you used two pipes?

A. All that I think of at present.

C. Q. 213. How much space was there between the two pipes in the Schermerhorn well?

A. I do not know as I can figure it out exactly; about three-quarters of an inch, if the inside pipe was placed in the center of the other, as near as I can calculate at the present time.

C. Q. 214. Was there anything placed in the space between
5711 the two pipes at the upper end?

A. I do not know that I could tell that; the well was outdoors at that time. I believe Mr. Parker had a ditch dug and elbowed it into the kitchen, and I do not recollect seeing it when it was fixed.

C. Q. 215. Do you mean that you never saw the well after it was completed?

A. I simply put down the outside pipe by the day. I afterwards pumped on the pump in the kitchen.

C. Q. 216. Then you do not know of your own knowledge whether this was a single-pipe well or a two-pipe well, do you?

A. We started it for a two-pipe well, but I was not there when it was completed. I understood Mr. Parker that he had put a pipe inside of this large one.

C. Q. 217. Question 216 repeated. Please to answer yes or no.

A. If I answer that question as I think I ought to I should
5712 say that I think it was a two-pipe well, but, as I stated, I was
not there when it was completed.

C. Q. 218. You have again evaded the question. What I want to know is, Do you know of your own personal knowledge that this was a two-pipe well?

A. I do not, for I was not there when it was completed.

C. Q. 219. Please to give the location of this well.

A. It was out of doors, near the northeast corner of Mr. Schermerhorn's house as it then was, as near as I can recollect.

C. Q. 220. Was it in sight from the street after it was completed?

A. I think not.

C. Q. 221. How long were you at work at it?

A. To the best of my recollection, some four or five days.

C. Q. 222. As I understand you, you were at work for Charles Parker, the agent of the Schermerhorn estate, by the day, and carried
out his orders in the constructing of this well; is this correct?

5713 A. I was at work for Mr. Parker by the day, but in con-
structing the well I think that Mr. Parker had me boss it.

C. Q. 223. Did you there put in practice any different plan, except as to the materials of the pipes used, than the plan you had previously followed when working under the instruction of Mudge?

A. We did, some.

C. Q. 224. What was it?

A. We drove on the pipe more than we did when working for Mr. Mudge. The pipe was heavier and would stand the driving better.

C. Q. 225. Is that all the difference?

A. That is all that I think of now.

C. Q. 226. Was the next well which you made the one in Copeland's cellar?

A. I believe it was.

C. Q. 227. How long was that after you made the Schermerhorn well?

A. I do not know that I could state exactly, but I should think it might be some three or four weeks.

Q. 228. Give the date of the making of the Copeland well as nearly
as you are able?

5714 A. To the best of my recollection it would be some time in
September or October of 1862. I have not got any dates with
me.

C. Q. 229. Who employed you to make the Copeland well?

A. Mr. Copeland.

C. Q. 230. How long before you began to make it were you employed?

A. The best of my recollection is that he spoke to me about it when I was at work at Schermerhorn's.

C. Q. 231. Did he employ you then; and, if not, when?

A. I could not state whether we completed the bargain then or not.

C. Q. 232. Please to locate the Copeland well.

A. It was down — cellar. I should think it was towards the east side of the cellar, near the stairway going down — cellar.

C. Q. 233. Was it the cellar under the Schermerhorn block, on the corner of Main and Court Sts., in Cortland?

A. It was in the cellar, but I could not state who owned it. It was the building on the corner of Main and Court Sts.

5715 C. Q. 234. Was the well back of the stairs which led into the cellar?

A. It was.

C. Q. 235. Could the well be seen by a person without going into the cellar?

A. I think not.

C. Q. 236. Where did you get the pump and the pipe for the Copeland well?

A. The best of my recollection is that I got the pipe of Mr. Mills, who used to keep a hardware store here. I think the pump was Mr. Copeland's. The pump, I think, was one which used to be in an open well near the southeast corner of the block.

C. Q. 237. How was the pipe prepared and by whom?

A. I had a wrought-iron point forged out which went up inside of the pipe probably about two inches; the pipe rested on a shoulder on the point which was riveted through the pipe. I had it fixed at the blacksmith shop of the foundry and machine shop in this village, on Port Watson St. I had about seventy or eighty holes about a quarter of an inch in diameter drilled in the pipe.

5716 C. Q. 238. What tools or implements, if any, did you there use which Mudge had formerly used in sinking wells?

A. I bought the tools of Mr. Mudge; I used a part of them, but I did not use them in exactly the same way as he had done.

C. Q. 239. In making the Copeland well did you carry into effect any different principle than that employed in making wells under the direction of Mudge, except in the use of a single instead of a double pipe?

A. I did.

C. Q. 240. What was it?

A. Instead of raising the bar up and down and turning it around by the handle the best of my recollection is that I drove it down and then turned it around by the handle. When I got it down I did not use the gravel or sand pump that I had of Mr. Mudge.
5717 I do not think of any further difference now.

Proceedings adjourned until 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: George L. Waters, Esq., for complainants; John W. Suggett, Esq., for defendant.

Cross-examination of JAMES SUGGETT resumed:

C. Q. 241. You have stated, Mr. Suggett, that you desired to add to your last answer. Please to do so now.

A. On reflection, I thought that there were a great many new principles involved in this way of making a well, more than I suggested in my former answer.

C. Q. 242. Please state what those new principles were.

5718–5721 A. In driving down a single-pointed pipe I could drive it further down into the water than a lead pipe. It was cheaper to have one pipe than it was to have two. In driving the rod for this well I could have the rod as large as I had a mind to, and before I had to have the rod smaller than the pipe in order to put it down on the inside. In putting down the rod inside of the sheet-iron pipe I had had trouble by reason of the thin pipe bending in and in trying to withdraw the rod had pulled the pipe up with it. This new way did away with that trouble. In using this iron pipe with the point on it, if the well should ever become dry, I could drive it down deeper without taking out any of the pipe.

5722 C. Q. 243. Have you now given all the new principles involved in the making of the single-pipe well?

A. I have all I think of at present.

C. Q. 244. So far as you have given, Mr. Suggett, what you have given seems to be mostly, if not all, as to the materials of the pipes and the manner of sinking the one pipe. Was not the idea of making a well by driving a rod into the ground carried into effect by you for Mr. Mudge previously to the making of the Copeland well and at the time you made the Seymour well?

A. It was not.

C. Q. 245. In making the Seymour well did not you drive a rod into the ground and insert a pipe through which water was drawn?

A. In making the Seymour well we did not drive the rod; 5723 we worked it down with the lever and chucked it up and down, working the rod and pipe down nearly together.

C. Q. 246. Then, do you mean that the difference in the idea of the two wells is in the manner of getting down the rod and pipe?

A. The idea means, as I suppose, in the different way of making them—that one is a drove one and the other is made by raising up the bar and chucking it down and turning it around with the lever.

5724 C. Q. 247. From whom did you derive your idea of driving a rod into the earth, withdrawing it, and inserting a pipe for the purpose of making a well?

A. I do not think of any one but myself.

5725 C. Q. 248. Did you not get the idea of so doing from your work under the direction of Mudge, at Woodruff's and Seymour's?

A. I believe that I did not.

C. Q. 249. Do you think that you would have ever put into practice the idea of driven wells but for your employment in making tube wells by Mudge?

A. I think I should; that was always my intention to try the experiment; but what kept me from trying it was because I was short of money; Mr. Mudge offered to sell me this drill and pump and wait on me for the money, so I bought them on time.

C. Q. 250. Was not the idea carried into effect by you under the direction of Mudge in obtaining water from the earth—the carrying out of the idea which you say you had had in mind for several years?

A. I think not; but it is possible that I brought it around sooner by getting a chance to buy these tools of Mr. Mudge.

5726 C. Q. 251. I do not think you understand my question, Mr. Suggett. What I mean is this—Mr. Mudge employed you and you, under his directions, constructed a well; did you not at once discover, when he told you what his method of obtaining water was, that he was putting into operation the thought that you had had in mind for years?

A. I do not recollect of telling him that language at all; I could see what it was without his telling me. I think I told him that we should never be able to make a well in that way without we had a very soft place. I think I spoke to him and tried to have him get some iron pipe, but it is so long ago that a great many things have probably slipped from my mind.

C. Q. 252. You still do not answer my question. Did you consider the idea which Mudge directed you to carry into effect in getting water the same idea which you had had in mind for years, as you have stated? Please notice the question carefully and answer it directly.

5727 A. It was very much like mine. I think I never should have used sheet-metal pipe.

C. Q. 253. Did you know the fact that Mudge prepared some iron gas pipe, with perforated end and iron point, to take with the 76th regiment into the army?

A. I did not know that he ever did it.

C. Q. 254. Did you, in the fall or winter of 1861, see any iron pipe prepared by Mudge for making wells or that which you understood to have been prepared under his directions?

A. I did not. I have no recollection of ever seeing any that Mudge had at that time.

C. Q. 255. Did you see some pipe in the barn of Albert Rollo, on Railroad St., on the premises now occupied by John Barnes?

A. I did not. I have no recollection of ever being in Mr. Rollo's barn.

C. Q. 256. After the making of the Copeland well you, as a rule, abandoned putting two pipes in a well, did you not? I mean the making of two-pipe wells.

5728 A. I did pretty much; all excepting one or two that I have spoken of at Mr. Carver's and at Mr. Lang's.

C. Q. 257. Do we get as much water from a two-pipe well as we do from a single-pipe well?

A. I think we do, if the outer pipe is well perforated so that the water can flow in freely; I used to think we could not, but my experience has changed my mind some on that; I have got wells on my premises, where I have got a pipe inside of another one, and where I have got a pipe drove down by the side of the other one; one I put down on my wife's premises has a three-quarter pipe attached to an inch-and-a-quarter pipe; both on one point; I have pumped from them both attached together; I have pumped from them separately; I have had the pump on the small one; I have now got the pump on the large one; I cannot see but what two pipes there work as well one.

5729 C. Q. 258. Did you not testify in the Carman case that you could not get as much water from a two-pipe well as from a single-pipe well, and did you not give as your reason there that it was "because" the air gets in between the two pipes and we have to wait for the water to run into the outer pipe?"

A. I believe I did.

C. Q. 259. How long since you changed your theory?

A. I should think some four or five years ago; I do not know that I could state the time exactly.

C. Q. 260. Was your change in theory occasioned by the experiment which you made upon your own premises and which you mentioned in your answer to question 257?

5730 A. About the time that I made these experiments at my place I made up my mind that I could get as much water out of a two-pipe well as any other if the outer pipe was properly perforated to allow the water to flow in freely.

C. Q. 261. Where was the next well made after the Copeland well?

A. To the best of my recollection it was at Avery Seaman's.

C. Q. 262. When?

A. Well, I think it was pretty soon after, but I do not remember the date.

C. Q. 263. Where?

A. On Merrick St., at his residence.

C. Q. 264. How was that made?

A. Pretty much similar to Mr. Copeland's; a single pipe.

C. Q. 265. State whether or not from 1861 to 1866 these driven wells were put down in saloons and stores in this village; and, if so, to what extent?

A. I think there were a considerable number put down in this village up to that time—1866; but I do not know that I
5731 should be able to state how many, for I have lost what account books I had, unless I can find them.

C. Q. 266. After you got your patent for the perforated pipe and point for sinking wells, and before the decision in favor of Green in the interference case, did you advertise your driven well extensively; and, if so, when did you commence?

A. I did advertise them extensively, and I commenced in 1864 to do so.

C. Q. 267. Through what medium?

A. Handbills; to the best of my recollection I had them posted up; some around town here in places where they were most likely to be seen; the handbills were about the character and size of "Defendant's Exhibit No. 6;" to the best of my recollection, I advertised in the Cortland papers and in other papers.

C. Q. 268. In what Cortland papers did you advertise?

5732 A. I could not say; it was in some of them.

C. Q. 269. Can you now produce any of your advertisements, except "Defendant's Exhibit No. 6?"

A. Do you mean in the newspapers?

C. Q. 270. I mean any advertisements of the well of any kind?

A. I do not know; I will look and see if I can find any at home.

C. Q. 271. In what places did you advertise?

A. The best of my recollection is that I had handbills put up at Elmira and at Cortland, and, I think, at Corry, Pa., and Springfield, Mass.

C. Q. 272. Wherever you went throughout the United States in selling territory did you, to the best of your ability, advertise your "bored well?"

A. I did; I do not recollect of any other places now but these I have spoken of; probably my agents advertised a good deal.

C. Q. 273. Did you and your agents travel extensively 5733 throughout the United States in selling territory?

A. Well, I did not travel a great deal; I sold a great deal by letter; I traveled some. The way that I advertised considerably, I think, was at Elmira when a great many soldiers were there from all parts of the United States; I think I put one or two on the campground. I had some agents in different parts of the country—not very many.

C. Q. 274. Did you ever hear of a one-pipe well before the well you constructed for G. N. Copeland?

A. I think not.

C. Q. 275. In all of your travels did you hear of any previously driven wells?

A. I believe not.

C. Q. 276. Did any one ever claim to you to have ever previously seen one?

A. I think not.

C. Q. 277. What is your belief, Mr. Suggett, as to whether 5734 or not driven wells were in use before 1861?

A. Well, I always thought that I made the first single-pipe driven well.

Proceedings adjourned until Wednesday, November 24th, 1880, at 9 o'clock a. m., at this place.

WEDNESDAY, *November 24th*, 1880—9 o'clock a. m.

Convened pursuant to adjournment.

Present: George L. Waters, Esq., for complainants; John W. Suggett, Esq., for defendant.

Cross-examination of JAMES SUGGETT resumed:

C. Q. 278. Have you, as requested, made out a list of the wells put down by you prior to April 1st, 1864?

5735 A. I have not.

C. Q. 279. Why not?

A. The books or diaries in which I had an account of them I cannot find.

C. Q. 280. Please to give a list of all the wells you can remember that you put down prior to April 1st, 1864, giving them as nearly as you can in the order in which you put them down, and also the date of each as nearly as you can give it.

A. Do you mean single-pipe wells?

C. Q. 281. I mean both single and double; but please to specify the double-pipe wells.

A. Well, the first one I put down on my own responsibility was
the Copeland well. Previous to that, in putting down wells, I had
worked by the day. That was a single-pipe well, and was put down
in the fall of 1862. The next one, I believe, was Avery Seaman's, to
the best of my recollection. That was a single-pipe well; it was
put down pretty soon after the Copeland well; I do not know that I
could give the exact date. The next one, I believe, was James Fos-
ter's well. That was a single-pipe well; the date I could not
5736 give; it was right away after the Seaman well; I think he
took the tools from Mr. Seaman's. The best of my recollec-
tion is that the next was John Samson's, but I cannot say when it
was. That was a single-pipe well; I think it might have been in
1862 or 1863; it would be likely to be in 1863; still, I could not fix
the date. That is all now that I can fix on or recollect, as I have
lost my books. I have not the least doubt but what there was a
number more, but I cannot find any record of them at present.

C. Q. 282. Then, as I understand you, you have mentioned in your last answer all the wells that you can now testify to having put down prior to April 1st, 1864, except the double-pipe wells, which you have already mentioned. Is that so?

A. I have, unless I should find my books or some record by which I could fix the dates.

C. Q. 283. Have you searched for your books since you have been put upon the stand?

A. I have.

5737 C. Q. 284. And have you been unable to find any memoranda which enables you to mention any more wells than you have already mentioned?

A. I have not found any yet. I think if I had time I could probably find some more wells by going to the parties, who might have some date showing where I put down wells for them.

C. Q. 285. In your early experience with these wells, in 1861, 1862 1863, and 1864, were not all driven wells, whether made by first driving down a bar or rod of iron and then putting in a pipe or by driving down a perforated iron tube without using a bar or rod of iron, called in this section of country "bored wells?"

A. I think about 1861 or 1862 Mr. Mudge used to call the wells which he made with two pipes "artesian wells" some, and sometimes I have called them "bored wells" and sometimes "drive wells."

5738 C. Q. 286. What did you call them in your advertisement and handbills?

A. I called them in my handbills "the best well in use," "bored wells," &c.

C. Q. 287. George F. Holmes has testified in this case that he at one time aided you in making a well, for fire purposes, in front of the engine-house in Cortland. How long was that well continued in use after it was put down?

A. I could not state that. I did not keep any track of it that I know of.

C. Q. 288. Was its use abandoned after a short time?

A. I could not say; I could not say whether it is in use now or not.

C. Q. 289. It is on Main St., in Cortland village, is it not?

A. It was.

C. Q. 290. You pass and repass the spot where it was very frequently, do you not, and have ever since it was made, it being between your house and the post office.

A. I do.

5739 C. Q. 291. And yet you cannot tell, can you, whether or not it is now in use or whether or not its use has been abandoned for years?

A. I could not tell; it may be covered over; they could perhaps uncover it, attach the hose to it, pump it out, and make a good well of it. I do not know what has become of it; I do not see why it cannot be made a good well, for, to the best of my recollection, I drove it ten feet into water.

C. Q. 292. State whether or not Byron Mudge ever made any offer to purchase a right of you?

A. He did; I do not know as I can state the day; it was just before Mr. Mudge went off to the war in 1864; he offered to give me a hundred dollars for an undivided half of the patent.

C. Q. 293. You refused that offer?

A. I did.

C. Q. 294. Had you previously offered to sell an interest in your patent to Byron Mudge?

5740 A. I had offered to sell him some of it before then; I do not know that I can state the time, but I have offered to sell him half of it for fifty dollars; it was after I got my patent.

C. Q. 295. Have you ever used wire gauze in connection with the perforated pipes?

A. I have had wire gauze around the pipe; I had holes drilled in the pipe and put this around the outside; I have a good, successful well; I have never used any since; it is unnecessary here except in some localities.

C. Q. 296. Did you make "good, successful wells" without using wire gauze or other strainers?

A. I did mostly; I might have had a failure once in awhile.

C. Q. 297. After you began to put wells down after your patent of 1864, did you put any mark on the pump that you used?

A. I believe not, on the pump.

C. Q. 298. Did you on the pipe?

5741 A. I believe I did; I believe I put a label on the pipe.

C. Q. 299. What was it?

A. I cannot give the words, but it was to show that I had a patent on it.

C. Q. 300. Was it written or printed?

A. I believe it was printed.

C. Q. 301. Whereabouts on the pipe did you put it?

A. Mostly at the upper end of the pipe near the pump.

C. Q. 302. How did you attach the label?

A. Mostly stuck it on with mucilage.

C. Q. 303. When did you first attach one of these labels to one of your pipes?

A. I do not know that I would be able to state when.

C. Q. 304. About when?

A. I do not know that I can give it any different than what I have done before.

C. Q. 305. Did you before April, 1864?

5742 A. I could not say; I do not think I should be likely to put any labels on the pipes before I got my patent, but still it is possible that I put some on the wells I made before; I could not state.

Redirect-examination:

R. D. Q. 306. Mr. Suggett, you have been asked by the complainants' counsel to produce some handbills, and you have done so. Have you those handbills with you now?

A. Here are two.

Defendant's counsel here offers the two handbills in evidence in this case.

Handbills received in evidence and marked, respectively, as follows: "Defendant's Exhibit No. 7, Cortland, N. Y., November 24th, 1880, M. Stanley Bierce, notary public," and "Defendant's Exhibit No. 8, Cortland, N. Y., November 24th, 1880, M. Stanley Bierce, notary public." 5743

R. D. Q. 307. Mr. Suggett, you have stated on your cross-examination that after you had made the single-pipe well at G. N. Copeland's you made two two-pipe wells, one for Mr. Carver or Mr. Bradford and the other for Mr. Lang; were these wells made in the bottom of the dug wells?

A. They were.

R. D. Q. 308. You have stated that you assisted Mr. Mudge in making a two-pipe well at O. H. Seymour's; did you get the outside sheet-iron pipe down there into the water?

A. I believe we did.

R. D. Q. 309. Was the Seymour two-pipe well the only two-pipe well that you ever assisted Mr. Mudge in making where the outside tubing was got down into water?

A. It was.

R. D. Q. 310. You have been asked on your cross-examina-
5744 tion in reference to the difference in principle between the
two-pipe well at Seymour's and the one-pipe well at Copeland's. Now, was not an important difference between the two kinds of wells, that whereas in the Seymour well two pipes had to be used, one as a curb and the other as a suction or draw-pipe inside of it, in the Copeland well the one pipe answered the purpose of a curb or lining to the well and as a suction or draw-pipe for the pump attached thereon by an air-tight connection, thus dispensing with one pipe?

A. That was an important difference; I dispensed with one pipe—the outer pipe—and the pipe that I put in answered for the curbing of the well and for a pipe to draw the water with the pump attached.

R. D. Q. 311. You have been asked on your cross-examination why you did not make use of a single pipe at Schermerhorn's the same as you did at Copeland's afterwards; was one of the causes
why you did not do so that you did not own the drill then,
5745 and therefore could not drive upon it, but had to use it inside
of the outer pipe by raising it up, chucking it down, and rotating it around with a lever?

A. It was.

R. D. Q. 312. You have been asked on your cross-examination questions from which the inference might be drawn that if you possessed or had in your mind at that time the idea of making a well with one pipe, as you afterwards did at Copeland's, why you did not do it there before that time. Will you now please explain whether or not you were at that time very poor, had a large family on your hands to support, and that it was necessary for you to be sure of your pay and not make experiments at your own expense?

A. I did at that time have a large family to support, and was very poor.

R. D. Q. 313. You have been asked on your cross-examina-
5746 tion whether or not when Mr. Mudge hired you to assist him
in making or attempting to make the two-pipe well at Woodruff's you discovered that his method was similar to the thoughts that you had entertained in reference to obtaining water. You answered, among other things, "It was very much like mine. I think I never should have used sheet-metal pipe." Do you mean that the idea of making a well which was then in your mind was to make it with one pipe, similar to what you afterwards did at Copeland's?

A. It was. I bought the drill and apparatus of Mr. Mudge for that purpose, so that I could drive on it and use it as I had a mind to.

R. D. Q. 314. Where was the last dug well—or about where—that you ever dug?

A. The best of my recollection is that, if I am not mistaken, it was in the spring of 1861, on North Church St., for Mr. Burst.

R. D. Q. 315. For about the last seven or eight years have you been sick, more or less?

A. I have.

5747 It is here conceded by counsel that the testimony of this witness is closed.

Proceedings adjourned until 1.30 o'clock p. m.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: George L. Waters, Esq., for complainants; John W. Suggett, Esq., for defendant.

The testimony, having been read over to the witness by the notary, is here signed by the witness.

JAMES SUGGETT.

Subscribed and sworn before me this 24th day of November, 1880.

[L. S.] M. STANLEY BIERCE,
Notary Public.

5748 SEPT. 9, 1880—10 o'clock a. m.

Case duly called pursuant to adjournment, and George L. Waters appears for complainants and Irving H. Palmer for def't; and JAMES O. FOSTER, called as a witness on part of def't and being first duly sworn, deposes and testifies as follows, viz:

5749 Q. 1. State your name, age, residence, and occupation.

A. James O. Foster; age, 56 y'rs; Cortland; mechanic.

Q. 2. How long have you resided in the village of Cortland?

A. Nearly 4 years.

Q. 3. How long have you resided in the town of Cortlandville?

A. 12 y'rs since I returned from Groton.

Q. 4. Did you reside in the town of Cortlandville previous to your removal to Groton?

A. Yes, sir.

Q. 5. When did you remove to Groton?

A. In April, in the year 1863.

Q. 6. How long had you resided in the town of Cortlandville previous to April, 1863? 5750

A. About 12 years, as near as I can recollect.

Q. 7. In what portion of the town of Cortlandville did you reside previous to April, 1863, with reference to the village of Cortland?

A. One mile west of Cortland village, near the brick schoolhouse.

Q. 8. Was your residence at that time on the direct road from the village of Cortland to Groton?

A. Yes, sir.

Q. 9. Did you have a driven well constructed on the premises owned and occupied by you near the brick school-house, in the town of Cortlandville, and on the direct road from the village of Cortland to Groton, as you have stated? And, if yes, give the date of its construction and the name of the person who constructed it.

5751 A. I cannot tell the day, but it was in fall of 1862—either September, in the latter part, or in October. I made no minute of the matter. It was constructed by Mr. James Suggett.

Q. 10. Where was this well made? Describe its location briefly.

A. At the first house east of the brick school-house, on the north side of the house—outside of the house.

Q. 11. About how far from the house?

A. I think about 4 feet from one corner of the house; about 4 to 6 feet northeast from the corner of the upright part of house; I think nearer to six feet.

Q. 12. Was it in plain view from the highway?

A. I should say it was.

5752 Q. 13. Were you present during the construction of the well by Mr. Suggett?

A. Yes, sir.

Q. 14. Please describe its construction briefly.

A. In the first place, we drove a round bar. After we drove the bar a sufficient depth we had an iron pipe ready and put that down.

Q. 15. Please describe the pipe used in the construction of this well, giving the material of which it was made and the manner of its preparation.

A. The pipe was gas pipe, I suppose; size, one inch and a quarter in diameter; common gas pipe, with holes drilled into the bottom or end, with a point or sharpened iron end. It was iron gas pipe.

Q. 16. What implements or tools were used in the construction of this well, and how was the pipe forced into the ground?

5753 A. The pipe was driven by an iron maul. Gas tongs to loosen it were used. I do not remember of any other tools.

Q. 17. How long a time was spent by Mr. Suggett in making this well?

A. From two to three hours. I could not tell exact, but not over three.

Q. 18. Did he have any assistance; and, if so, by whom?

A. By myself. I assisted him all the time.

Q. 19. Who was present during the time this well was being constructed?

A. I do not remember of any one being there except my wife occasionally.

Q. 20. Did this well yield a good supply of wholesome water after it was constructed?

A. It was while I owned it.

5754 Q. 21. What appliance or means was employed to obtain water from this well after it was made, as you have stated?

A. A pump—a cast-iron pitcher-spout pump.

Q. 22. For how long a period after its construction did you obtain water from this well, and when did you last see it?

A. I obtained water from it from the time it was driven until the next spring, in April. I saw it last this present summer.

Q. 23. Was it in a condition for use when you last saw it?

A. I could not say.

Q. 24. When did you last see water drawn from it?

A. I have seen water drawn from it since I left, but how long ago I cannot say.

5755 Q. 25. Have you seen water drawn from it since you left the place on more than one occesion?

A. I think I have.

Q. 26. Who now occupies the premises on which this well is situated?

A. Mr. John B. Buell.

Q. 27. To whom did you sell the premises upon which the well is located, and when did you sell the same?

A. To Sullivan Hatch, in March, 1863.

Q. 28. And was the well constructed in September or October previous to the sale to Hatch?

A. It was.

Q. 29. How was your attention called to the method of constructing driven wells?

5756 A. I was talking with some persons here in the village about digging a well, and they asked me why I did not get Mr. Suggett to drive one; they said he could drive me a well right down without digging; I said if that was so I would go and see him, and I made a bargain with him, or he said he could, at least, and I think I carried him up.

Q. 30. By whom were you told of this method of constructing a well by forcing an iron gas pipe, perforated and pointed at one end, into the water and earth, as you have described?

A. I do not remember; I have tried to think, but cannot.

Q. 31. How deep into the earth was this gas pipe sunk or driven?

A. Between 16 and 18 feet; I don't remember nearer than that; it might have been more.

5757 Q. 32. About how deep was the water inside the pipe?

A. From 4 to 5 feet, as near as I can remember.

Q. 33. How far up from the pointed end did the perforations in the pipe extend, and what was the purpose of these perforations?

A. I should think two feet, and they were for the purpose of letting water into the pipe.

Q. 34. After this well was completed, as you have described, was the earth compact around the pipe and in contact with it around the entire circumference of the pipe?

A. It was, at the top of the ground, and as far as I could see.

Q. 35. Was there an excavation made in the ground before the pipe was driven and into which it was driven?

5758 A. Yes, sir.

Q. 36. Was the earth replaced into this excavation after this pipe was driven and made compact about the pipe?

A. It was.

Q. 37. Please state how this was done.

A. It was shoveled back in and stamped down.

Q. 38. Was any secresy practiced or enjoined by yourself or Mr. Suggett in the making of this well?

A. No, sir; not any.

Q. 39. Did you tell any of your neighbors or acquaintances of the making of this well or describe the process by which it was made?

A. I presume I told my neighbors, but do not know as I told them the process. I might and might not.

5759 Q. 40. Did your neighbors and acquaintances and others see this well and see it in operation?

A. Yes, sir.

Q. 41. Did some of your neighbors procure water from this well occasionally?

A. I think they did, but cannot say to what extent.

Adjourned until 2 o'clock p. m., Sept. 9, 1880, at the law office of Wm. D. Tuttle, in Cortland village, N. Y.

August 9, 1880—2 o'clock p. m.

Called pursuant to adjournment and parties present as before.

Q. 42. Was the cast-iron pitcher-spout pump, by means of which water was drawn from this well as you have stated, attached to the pipe forming the well, described by you, by an air-tight connection; if so, how was it attached?

A. I do not know whether it was attached by a screw thread
5760 cut on the pipe or soldered on; it was air-tight.

Q. 43. Whom did you pay for this well?

A. James Suggett for the work of putting it down; I think I bought the materials at some hardware store; Mr. Suggett superintended the making of point and fitting of it, but I paid for it.

Q. 44. Was Nelson W. Green recognized in the transaction in any way?

A. No, sir; I did not know there was such a man at that time.

Direct examination closed and cross-examination here commenced by Geo. L. Waters, counsel for the complainants:

C. Q. 45. Your house, at which this well was located, was on the north side of the highway and fronted toward the south, did it not?

5761 A. The road does not run exactly east and west; it fronted southerly.

C. Q. 46. Which way does the road run?

A. By the house it runs southwest and northeast.

C. Q. 47. And does your house front toward this road?

A. Yes, sir.

C. Q. 48. Was there not an upright part to the house and a wing attached, the two forming, on the backside, an L?

A. Yes, sir.

C. Q. 49. And was not this well on the backside of the house directly within the angle of the L?

A. It stands about six feet outside the angle and about 12 feet from the corner.

5762 C. Q. 50. And was it directly behind the wing part of the house from the highway?

A. Yes, sir.

C. Q. 51. Would it not be with considerable difficulty and with very close observation that one would be able to see this well from this highway running in front of your house?

A. It would in front of the house, but going west when there was no other obstructions—which there was not at the time it was put down—by observing, it could be seen from the highway I will say 8 rods east side of the house.

C. Q. 52. It could not be seen at all in front of the house nor in that highway west of the house, could it?

A. No, sir.

C. Q. 53. Was there a box or curbing around this pipe?

5763 A. I think there was enough to set the pump on.

C. Q. 54. The pipe was not visible, was it?

A. No, sir.

C. Q. 55. One by looking at it could not tell whether it was a driven well, a dug well, or a cistern, could they?

A. No, sir.

Cross-examination closed and redirect examination by IRVING H. PALMER, counsel for def't:

R. Q. 55½. Was there not arch-shaped openings above the flange and below the cylinder of this pump through which the pipe to which it was attached might be seen?

A. Yes, sir.

R. Q. 56. Do you mean the pipe to which the pump was attached could not be seen through these openings in your answer to C. Q. 54?

5764 A. I did not mean that they could not; I had forgotten about the openings until my attention was called to it.

R. Q. 57. A person observing that this pump was attached to a gas pipe extending into the ground would readily discern that the well was a driven well, would they not?

A. I think not; I do not know how they could tell.

R. Q. 58. The highway which ran in front of your house took a direction a little south of west and a little north of east at that point, did it not?

5765 A. Yes, sir.

R. Q. 59. Was there another highway which intersected this highway a few rods west of your (then) residence?

A. Yes, sir.

R. Q. 60. What direction did that road take opposite your place?

A. A little east of north and a little west of south.

R. Q. 61. About how far west of your residence do these roads intersect?

A. I should think 15 rods or more.

R. Q. 62. Could this well be seen from the last-mentioned highway?

A. It could.

R. Q. 63. About what was the nearest distance from this last-mentioned highway to this well?

A. I think from about 8 to 10 rods.

5766 Redirect examination closed and cross-examination also closed.

JAMES O. FOSTER.

Subscribed and sworn to before me this 9 day of September, 1880.

[L. S.] WILLIAM D. TUTTLE,
Notary Public.

5767 Mr. JOHN S. SAMSON testifies as follows:

Q. 1. State your name, age, residence, and occupation.

A. John S. Sampson; 73 y'rs; Cortland, N. Y.; I have retired from business.

Q. 2. How long have you resided in Cortland village or vicinity?

A. I have lived in the vicinity 60 years; have lived in the corporation 30 years.

Q. 3. At one time did you have a driven well, so called, made on your premises in this village?

A. I did.

Q. 4. Who made that well?

A. James Suggett.

Q. 5. How did he make it? Please give a description of the tools he used and the process of its construction.

5768 A. He had a solid iron bar he drove first with an iron sledge; I think the bar was some 10 or 12 feet long; after he made the hole as deep as he could with that he drew it out and put in a gas pipe with a joint in the end, pipe perforated above the point; drove it down as far as I wanted it; when he got it down to the length he wanted it he put on a pump and set it to work.

Q. 6. What was the size of that gas pipe?

A. I think it was one inch and a half.

Q. 7. How did he fasten the pump on the pipe?

A. By having a screw cut on the gas pipe and screwed the pump on.

Q. 8. How deep did he drive the gas pipe into the ground from the surface of the earth?

A. I have no means of telling exactly, but my mind would be it was some 20 odd feet.

Q. 9. After screwing on the pump did he obtain water?

A. He did; we got abundance of nice water.

5769 Q. 10. How long did you continue to use this well?

A. I think I used it myself about two years; it has been in use ever since.

Q. 11. Can you fix the date when it was made by Suggett as you have testified?

A. I think we started the water April 10, 1863.

Q. 12. How do you fix this date?

A. From a diary that I kept at the time.

Q. 13. Then are you positive it was made in the year 1863?

A. I am.

Q. 14. Who did you pay for making this well?

A. James Suggett.

Q. 15. Did Mr. Suggett practice any secrecy or enjoin any on you in the making of this well?

5770 A. He did not. I knew he invited men there to see it and see it work.

Q. 16. Do you know the complainant, Nelson W. Green?

A. I know Nelson W. Green. I do not know whether he is complainant or not.

Q. 17. Did he live in this village at that time?

A. I think he did; his family were here at that time.

Q. 18. Was James Suggett making it a business to drive wells at the time he made yours?

A. He was.

Q. 19. Had you previously heard or known of his driving other wells?

A. I had.

5771 Q. 20. After James Suggett commenced to drive wells did not the driven wells become a common and general thing in the village?

A. It went into pretty general use.

Q. 21. Did you not frequently in the y'rs 1862 and '3 and up till March, 1864, meet Col. Nelson W. Green upon the streets and in the business places of the village?

A. All the time he lived here I used to meet him frequently, but do not know the date of the time that he moved here or the time that he left.

Q. 22. From the time that James Suggett commenced to make driven wells, made substantially as yours was, and up to March, 1864, did you not frequently see him or his workmen passing through the streets of Cortland village with their tools and implements for the purpose of making such driven wells?

A. I did.

5772 Q. 23. Did you not also see Byron Mudge engaged in making these driven wells in and about the village and passing through the streets with his tools and implements for making the same in this village?

A. Yes, sir; I should think I did.

Q. 24. And after James Suggett first commenced to make these wells, and during the said years, was it not publicly talked and discussed by the citizens generally that he had been lucky or had hit upon a good thing in having discovered or invented a method of making a well by means of a pointed and perforated gas pipe forced into the earth and into the water therein and having a pump attached to the said pipe? Please state generally what you then heard talked or discussed concerning the same.

5773 A. I do not know as I can answer all of the above by one answer. It was talked about at that time and called Suggett's well; there was a great deal of talk about it, but how generally I do not know.

Q. 25. Do you think it probable or even possible that a man living
in Cortland, as Col. Greene did, when Suggett first commenced to
make these driven wells, and up to 1864, could not have heard them
talked about or known of their existence in this village and vicin-
ity, taking into consideration when you make your answer that you
frequently met him on the streets and in the business places of the
village, and also the public notoriety of these driven wells at that
time and the state of the public mind in reference to them,
5774 and assuming that Col. Greene returned from the army in
the spring of the year 1862 and then lived in a house, then
owned by Daniel Bradford, on Main street, where the Masonic Hall
block now is, until the summer of 1863, and then moved to his place
near the carding-mill?

A. I should not think it hardly possible that a man could live here and not hear more or less of it.

Direct examination here closed and cross-examination by Geo. L. Waters, Esq., counsel for complainants:

C. Q. 26. How many years has it been since you retired from active business?

5775 A. Perhaps one or two. I have been in business all the time, more or less, up to within two years.

C. Q. 27. Will you here show to me the diary wherein you say you made an entry which enables you to fix the time of the putting down of the well as April, 1863?

A. I will if you will wait for me to go and get it at my house, or I will show it to you any time I am coming along here. I have not it with me.

C. Q. 28. Have you a copy of the entry which you made in the diary from which you refresh your memory as to the time?

A. I have.

C. Q. 29. Please to look at that copy and give the exact words of your entry in the diary of 1863, by which you say you know the date of the putting down of the well.

5776 A. Witness here reads: "Suggett drove well in 1863, the 10th of April."

C. Q. 30. And are those the exact words of that entry made in the diary under the date of April 10th?

A. It says in the diary, under the date April 10th, 1863, "Suggett drove well," just the same as it says here under that date.

C. Q. 31. Where was that well?

A. On North Church street, at the (then) back door of the place now owned by J. J. Pease, on the west side of the street.

C. Q. 32. That is not one of the business streets of the village, is it? I mean by this there are nothing but private residences on that street.

A. Private residences; pretty prominent street, but not a business street.

5777 C. Q. 33. Was the well itself in sight of the street?

A. You could see it from North Church street for a short distance, but you could not see it when in front or nearly in front of the house.

C. Q. 34. Have you any knowledge where Col. Green was in the years 1862, '63, and '64?

A. I know I met him in that time; where he kept himself generally I do not know.

C. Q. 35. Do you know how he was occupied during any of those years, so that you can now tell?

A. What time he was in the army I frequently saw him; after that I cannot tell what business he was in.

C. Q. 36. Were you somewhat intimately acquainted with him, so that you knew his general characteristics?

5778 A. I only had a passing acquaintance with him; I only knew him well when I met him.

C. Q. 37. Was he not, as you personally observed and as you knew by his reputation, a nervous, excitable, eccentric, vehement man?

A. I would not want to say that he was. I never had occasion to call him out where he would show these traits.

C. Q. 38. Were not the years of 1862, 1863, and 1864 years of great excitement in the village of Cortland, and was not the whole community during that time greatly absorbed and in a great state of excitement over the war of the "rebellion," which was then going on?

5779 C. Q. 39. Question repeated.

A. It was more or less during the war; not so much, however, but people attended to their business and knew what was going on here generally.

C. Q. 40. Was not the village of Cortland during the time also considerably excited over the shooting affair between Col. Nelson W. Greene and Andrew J. McNett, and was not Col. Greene one of the central figures around which this excitement gathered?

5780 A. I could not answer that question, inasmuch as I was more or less away and do not know to what extent, except by her*e*say.

C. Q. 41. How much of the time were you away during the years 1862, 1863, and 1864?

A. I could not tell without referring to my diary. I was in Washington some of the time in 1863 and 1864, and the rest of the time I could not say without referring to——

C. Q. 42. Give your opinion, stating, as near as you can, what portion of the time you was away during those years.

5781 A. I have no means of knowing here. It might have been half of the time and a little more or little less. I could tell to a day by going to my diary.

C. Q. 43. I do not wish to delay the examination, Mr. Sampson, for you to get your diary. In your opinion were you away from Cortland in those years one-half of the time?

A. I could not tell; it might of been just as I said—a little more or a little less.

C. Q. 44. Have you an opinion on the subject, or do you mean to state for your last answer that you were away about one-half of the time?

A. I should think in those years I might of been away half of the time; it might turn out that I was away 9 months in a year,
5782 and it might be 5 months in a year; I could tell by looking.

C. Q. 45. So that during those years there was a large part of the time when you had no personal knowledge of what was going on in Cortland, was there not?

A. All of the time I was away I knew only by hearsay.

Examination here closed, with the privilege of complainants recalling him for cross-examination.

J. S. SAMPSON.

Subscribed & sworn to before me this 20 day of August, A. D. 1880.

WILLIAM D. TUTTLE,
Notary Public.

Adjourned until 9 a. m., August 21, at same place.

5783 AUGUST 21, 1880—9 o'clock p. m.

Case duly called pursuant to adjournment, and same parties present, and case adjourned until one o'clock an- thirty minutes p. m., August 21, 1880, at same place.

AUGUST 21, 1880—1.30 a. m.

Case called pursuant to adjournment, and same parties present.

JOHN S. SAMPSON, recalled by the complainants and cross-examined by GEO. L. WATERS, Esq., testifies as follows:

C. Q. 46. Had you ever known of any driven wells previously to the time that yours was driven; if so, when and where?

A. I had; I went with Mr. Suggett to look at one or two, but I do not remember where; I think one was in Copeland's cellar, of the Schermerhorn block. I went to look at one or two before I concluded to have one made.

5784 C. Q. 47. Can you specify any well that you can positively say you saw before your well was driven?

A. No more than I have; I have not thought of that thing, but think it was somewhere under the bank, in Copeland's cellar; that is all I can specify now.

C. Q. 48. And was the only knowledge which you had of driven wells that which you obtained immediately previous to the putting down of your well, and was such knowledge obtained by your investigation made to determine whether or not you would have this well put down?

A. I had bought a place where there was no well; I wanted a well. I applied to Mr. Suggett, whom I had heard was putting down such wells, and after talking with him I concluded to try one myself; I knew nothing myself until that time, except what I had heard; I had never examined them myself until I wanted a well.

5785 C. Q. 49. You say you saw Mr. Suggett in the streets with his tools for putting down wells; when did you thus see him?

A. I cannot specify any particular day, but I saw him before and after the time I agreed with him to put one down for me.

C. Q. 50. How long after your well was put down did you first see him with tools?

A. That I cannot tell; have no means of knowing; it might have been a week, more or less; it was about that time.

C. Q. 57. What tools did he have that you now remember?

A. Well, it strikes me he had about the same he brought to my house; an iron bar or two, a sledge, and one or two pair of tongs.

5786 C. Q. 52. Will you swear positively that he had any one of these tools? If so, state any one of them that he had, and state when and where that you saw them.

A. You have mixed them up into so many questions I cannot answer them; I will not swear to any one of them positively, except when he came to my house he had one or two tongs and some chains and bars.

C. Q. 53. Aside from the time when he came to your house, will you swear positively that you ever saw him, during the y'rs 1862, 1863, and up to March, 1864, have a single tool for the purpose of putting down a driven well? If so, state what the tool was and when and where you saw it.

A. I remember of seeing him and talking with him after he put
one in for me, and he had his tools with him, but I cannot
5787 remember what they were nor where nor when it was; this
is all the occasion that I now remember.

C. Q. 54. You stated in answer to question 23 that you thought you had seen Byron Mudge passing through the streets with his tools and implements for making wells. Can you swear positively that you did see him thus passing with his tools?

A. I remember seeing him with his tools—Mudge and some other man, but I cannot tell when; I think it was after my well was put down.

C. Q. 55. Can you tell who the other man was, in what year it was, what tools they had, or where it was?

A. No; I met some man and he wanted to know if I
5788 wanted a well, and I told him I had one, and he claimed he
was putting down Mudge's patent or something of that kind.

C. Q. 56. And is that all you know about Mudge passing through the streets of Cortland with tools for making wells?

A. It is all I remember now.

C. Q. 57. In answer to question 24 you state that it was talked about at the time your well was put down that it was Suggett's well. Give the names of those who said that.

A. I cannot remember any names except Durell and Ellsworth. That is all I remember now.

C. Q. 58. Durell was Suggett's lawyer, and Ellsworth was a man who worked for Suggett; is that not so?

A. Yes; it is so.

5789 C. Q. 58½. Since you were examined have you looked at your diary to ascertain the time you was away from Cortland the y'rs 1862, '63, and '64?

A. Yes, sir.

C. Q. 59. What portion of the time were you away in the years 1862, 1863, and 1864?

A. About 3 months I think I was away. It might have been a little more or little less; in 1863 a little over 3 months, perhaps, and in 1864 half of the time—six months, or perhaps a little over.

C. Q. 60. In answer to question 25 you say that you should think it hardly possible that a man could live in Cortland at that time without hearing more or less in regard to the putting down of these wells. Can you testify that Col. Greene did know anything in regard to it?

5790 A. I do not know that he knew anything about it.

C. Q. 61. How many times, when, and where did you meet Col. Greene in Cortland in the year 1862?

A. Now, it is impossible for a man to answer such a question after the lapse of time that has passed since then.

C. Q. 62. Do you wish me to understand, then, Mr. Samson, that you cannot swear positively that you met him at all in the year 1862?

A. I cannot say positively what date it was; during his living here I met him occasionally; I knew him well, but when or where I met him I have no recollection now.

C. Q. 63. Do you mean the above answer to apply to the years 1863, 1864, as well as 1862?

A. Yes, sir.

5791 C. Q. 64. Do you know what business Col. Greene engaged his time in the years 1863, 1862, and 1864?

A. I do not know anything about it.

Cross-examination closed and redirect examination by JOHN W. SUGGETT, Esq., def't's counsel:

R. Q. 65. Col. Greene was a man of a large size, was he not?

A. Not very large, I should not think; about medium size.

R. Q. 66. He was a man of apparently good health and strong physical developement.

R. *C.* Q. 67. You say the well on your premises was in sight from a portion of North Church street; could a person from the street tell whether it was a dug well or a cistern or a driven well?

5792 A. Could not tell anything about it unless you examined; all you could see was the pump.

R. Q. 68. Supposing that a person who pretended to have invented or discovered a driven well should have seen that pipe with a pump on it sticking up back of your house, ought he to have known, in your judgment, it was a driven well (so called) or not?

A. It was a sort of force pump they made in 1861 and '2, and you could see the pump, but not the pipe.

5793 R. Q. 69. You state, in answer to cross-question 55, that a man claimed he was putting down Mudge's patent, or something of that kind; please state, as nearly as you can, how long this was after your well was put down.

5794 A. I could not tell anything about it; I have no means of knowing.

R. C.Q. 70. Can you tell within one or two years of the time?

5795 A. I do not know as I can.

J. S. SAMSON.

Subscribed & sworn to before me this 21st day of August, 1880.
[SEAL.] WM. D. TUTTLE,
Notary Public.

5796 7 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: George L. Waters, Esq., for complainants; John W. Suggett, Esq., and Irving H. Palmer, Esq., for defendant.

WILLIAM A. ANTHONY, being called for the defendant, and being apparently about the age of 46 years, and being by me first cautioned and sworn to testify the truth, the whole truth, and nothing but the truth in the above-entitled matter of controversy, and being by me carefully examined, did testify, depose, and say, in answer to the following interrogatories propounded by JOHN W. SUGGETT, Esq., of counsel for defendant, as follows:

Q. 1. What is your name, age, residence, and occupation?

A. William A. Anthony; 46; Ithaca, N. Y.; professor of physics in Cornell University.

5797 Q. 2. How long have you been professor of physics in Cornell University?

A. Nine years last November.

Q. 3. Have you been engaged, more or less, as such professor and otherwise in the study of hydraulics and other kindred sciences?

A. I have been engaged in the study of hydraulics for some twenty-five years.

Q. 4. Are you acquainted with and have you a knowledge of what is commonly known as the "driven well," usually constructed by two methods, viz: 1st, by driving or forcing a solid bar into the earth without removing the same upwards to and into the water-bearing stratum, and after it is so driven or forced withdrawing it and inserting in the aperture a tube, pointed at its lower end and perforated with a number of holes for a short distance above the point for the admission of water, and then attaching to the upper end of said pipe so inserted an ordinary suction pump by an air-tight connection, by the operation of which water is obtained;
5798 2d, by driving or forcing the pipe prepared as in the first method above described directly into the earth to and into the water-bearing stratum, dispensing with the use of the solid rod, and then attaching the pump by an air-tight connection to the upper end of said pipe, and by operating the same obtaining water, the earth being by both of these methods compacted around the tube as the result of the lateral displacement of the earth in the driving or forcing of the solid bar or tube?

A. I have seen many such wells and have known of their being constructed by the second method, viz., driving the pipe itself into the earth; I do not remember ever having seen one constructed by the first method.

Q. 5. In your opinion, does the fact that the earth is compacted about the pipe or tube, as stated in the last question, increase or diminish the productiveness of said well?

5799 A. The compacting of the earth about the pipe cannot in any way affect the productiveness of the well.

Q. 6. In your opinion, is a driven well more productive than an open well made in the same locality with the same conditions of soil and water-bearing strata, both wells being of the same depth and a tube being used in the open well of exactly the same internal diameter and pointed and perforated exactly similar to the said driven-well tube, the pumps used on each being of exactly the same construction, stroke, and capacity?

A. In my opinion, both wells would yield the same quantity of water under the conditions named.

5800 Q. 7. In your opinion, is it possible by the operation of a pump on a driven-well tube to create a partial vacuum in the water-bearing stratum contiguous to the lower portion of the driven-well tube and outside of the same, the well being a productive and practical well?

A. It would be impossible to produce a vacuum under such conditions, since the soil is more pervious to air than it is to water.

Q. 8. In your opinion, is there a partial relief from atmospheric pressure upon the surface of the water outside of and surrounding the lower portion of the driven-well tube whenever the pump works freely and there is a good yield of water?

A. In my opinion, there would be no sensible variation of the pressure upon the surface of the water whether the pump was worked or not.

Q. 9. In your opinion, if there is any partial relief from atmospheric pressure on the water outside of and surrounding the lower portion of the driven-well tube, would it increase or decrease the supply of water or tend so to do? 5801

A. Assuming, for the sake of answering the question, that such a decrease of atmospheric pressure may exist, there could be no increase in the flow of water, since the air in the surrounding earth has just as free access as the water to the space surrounding the pipe and would flow into it more freely and rapidly. Assuming the diminished pressure to exist, it could not affect the supply of water, either to increase or diminish it.

Q. 10. In your opinion, if an ordinary well, from which the water is drawn by a pump attached to a pipe, be filled up with dirt and the dirt packed tightly about the pipe, will the productiveness of the well be thereby increased, said pump being attached to said pipe by an air-tight connection?

5802 A. In my opinion, the productiveness of the well could not be increased by such treatment.

Q. 11. Will you now, in your own way, give any scientific or other reasons or explanations to account for the answers which you have made to the foregoing questions? In giving this answer you will consider yourself at liberty to enlarge upon the scientific questions so involved, if you so desire.

A. Well, first, in regard to the production of a vacuum in the vicinity of the pipe, the earth in which such wells are found available is filled with air above the water-bearing strata; air circulates through it more freely than water, and any space left by the lowering of the water about the pipe would be immediately filled with air, thereby preserving the atmospheric pressure upon the water in the vicinity of the pipe sensibly, the same as upon the surface of the water farther away; in order that the atmospheric press-
5803 ure may be made available to increase the productiveness of the well, as suggested in question 9, it is essential that the air should be shut out from the space about the pipe and that water only should gain access to the space left by the water in consequence of the working of the pump; in other words, it is essential that there should be something equivalent to a bell or an inverted tub or pail through which the pipe passes by an air-tight connection, the edge of such bell or tub extending below the surface of the water in the water-bearing stratum; under conditions like this, and under no other, the atmospheric pressure outside of the supposed bell might increase the flow of the water into the space immediately surrounding the pipe; there is nothing in the driven well that could serve the purpose of such a bell or tub; the earth near the pipe being equally permeable to air, with the earth at a dis-
5804 tance from the pipe, the compacting of the earth by the driving of the pipe only extends at most to a very few inches distance, and could in no way hinder the access of the air to the vicinity of the pipe near the surface of the water.

Direct examination closed.

8.40 O'CLOCK P. M.

Proceedings adjourned until Thursday, May 4th, 1882, at 9 o'clock a. m., at thisplace.

5805 Proceedings adjourned until Friday, May 5th, 1882, at 9 o'clock a. m., at this place.

FRIDAY, *May 5th*, 1882—9 o'clock a. m.

Convened pursuant to adjournment.

Present: William D. Andrews, Esq., and George L. Waters, Esq., for complainants, and John W. Suggett, Esq., and Irving H. Palmer, Esq., for defendant.

WILLIAM A. ANTHONY, produced for further examination; and the said WILLIAM A. ANTHONY did further testify, depose, and say, in answer to the following cross-interrogatories propounded by WILLIAM D. ANDREWS, Esq., for complainants, as follows:

C. Q. 12. Have you ever constructed or assisted in constructing a driven well?

5806 A. I never have.

C. Q. 13. Have you ever seen driven wells constructed and seen the operation of making from start to finish, including the procurement of water therefrom?

A. I never have.

C. Q. 14. Then is the testimony you have given in regard to driven wells upon your direct purely theoretical?

A. It is not purely theoretical, but based upon a knowledge derived from the general experiments connected with the manipulation of gases in the laboratory of the permeability of loose powders to gases. In the manipulation of gases they are often passed through drying tubes, which are usually glass tubes, say, from one-half inch diameter and from sixteen to twenty-four inches in length, filled with loose powders, such as chloride of calcium. It is not un-
common to pass the gas through six such tubes in succession,
5807 which would give a length of, say, eight to twelve feet; to cause
the flow of, say, one gallon every 5 minutes of gas through such a succession of tubes requires a pressure of only two or three inches of water. My answers have been based upon knowledge derived from a variety of such experiments as these.

C. Q. 15. Please explain how you apply the knowledge derived from such experiments to the driven well and its action and what connection you claim there is between these experiments and the action of a driven well.

A. My previous answer had reference especially to the questions relating to a relief of atmospheric pressure in the vicinity of the driven tube in consequence of the working of the pump and the assumed lowering of the water outside the tube thereby. The ease with which a gas permeates through a loose porous soil would pre-
vent any relief of pressure occurring, since if the surface of the
5808 water is lowered the air from the surrounding soil would take
its place so freely that there could be no sensible diminution.

C. Q. 16. Do you, then, mean to be understood as saying that the body of earth intervening between the surface of the earth and the surface of the water in the earth and the earth that intervenes between the surface of the water in the earth down to the openings in the lower end of a driven well forms no obstruction to the free passage of water through it, but that the water so flows as freely as if no earth intervened?

A. I have said nothing whatever in regard to the flow of water. I do mean to say that the earth above the surface of the water interferes so little with the flow of air that the pressure of the air upon the surface of the water near the driven tube when the pump is working will be sensibly the same as at a distance. The rise of the
water in the tube by the action of a pump placed on top of
5809 it is itself evidence of the free action of the atmospheric press-
ure upon the surface of the water outside. I do not mean to say that the water flows as freely through the soil as through a space devoid of earth.

C. Q. 17. What knowledge have you in regard to the making of open wells and the methods of procuring water from them? Please state as fully as may be.

A. I have had charge of the construction of three or four open wells, mostly in sandy or gravelly soil. One of these, in the State of Iowa, was undertaken for the purpose of obtaining a water supply for

the entire purposes of the State Agricultural College, including barns, farm-house, dormitories, boarding department for students, chemical laboratory, workshop, where a 20-horse engine was supplied with water, and also including the use of water for irrigation of flower-beds and garden. This well was made, as I remember it,
5810 about eight feet in diameter inside the brick walls. In the process of construction it was impossible to keep the water more than about thirty inches below its natural level by means of a ten-inch steam pump driven at its highest speed, and the effort to sink the well below that depth had to be abandoned. That well supplied all the wants of all the departments of the college, and from what I have heard from there lately is still being used in the same shape as when I left it. In none of the cases in which I have had special knowledge of the construction or use of open wells have I known the water to be lowered to any considerable extent by the ordinary drafts upon it. Open wells, so far as my knowledge goes, fail from the general lowering of the water in the soil during times of drouth, and not from a failure of the water to find its way into the well from the earth.

5811 C. Q. 18. You speak of a ten-inch pump being used to empty this well upon the State Agricultural College grounds. How much water did that pump throw per minute?

A. I can only answer that question roughly, but I should say the pump must have made at least fifty strokes per minute—probably much more—which would give about fifty cubic feet of water per minute, as the pump was new and in perfect order.

C. Q. 19. What was the size of the suction pipe of that pump and what the size of its discharge?

A. I think the suction pipe was four inch; it may have been larger. The discharge pipe, I think, was four inch also,
5812 but I am not certain as to that. I think it was a Blake steam pump.

C. Q. 20. When was this?

A. In the summer of 1871 or 1872.

Q. 21. Have you ever used a driven well?

A. I have never used one continuously; I mean by that that I have only used them occasionally.

C. Q. 22. How long did you ever use one at one time continuously?

A. Never more than a few minutes.

C. Q. 23. Did you ever pump a driven well dry?

A. No; I never pumped more than three or four pails of water at any one time that I remember.

C. Q. 24. Was there any driven well put down and used in the vicinity of the open well you speak of having made at the college grounds?

A. There was none.

C. Q. 25. Then you have no means of comparing the supply of a driven well with the supply from that open well, if I correctly understand you; is that so?

5813 A. I have no means from actual experience.

C. Q. 26. Suppose two pipes of the same size and construction of openings for the admission of water at the lower end have the same size of pump attached and operated the same, the one being inserted tightly into the earth as a driven well and the other inserted into free water in an open well; into which will the water pass the most freely and easily?

A. In actual practice I consider that the water would flow most freely and easily into the pipe in the open well, because the openings in the driven pipe must be more or less clogged by the gravel and other material outside.

C. Q. 27. Will the water flow as freely through the earth to the driven well as it will flow from the open well into the tube inserted therein without any regard to the clogging of the holes in the pipe by the earth, as you have stated?

5814 A. I think, after the well has been in use some time and the finer material which is drawn up with the water at first has been removed, that the water will flow almost, if not quite, as freely through the space in the vicinity of the pipe as in an open well.

C. Q. 28. What do you mean by the spase in the vicinity of the pipe of the driven well?

A. I mean the space from which the sand and finer materials have been removed by the action of the pump.

C. Q. 29. Please describe that space.

A. I suppose there must be a space surrounding the lower part of the pipe from which the sand and finer materials have been removed, since such materials always accompany the water when the well is first put in operation, and hence that it must be a space filled with smaller and larger pebbles from which such sand and finer materials is absent.

5815 C. Q. 30. I hand you a cut showing two driven wells inserted into the earth, which earth is shown in section, and immediately surrounding the openings into the lower end of the tube forming the driven well are shown particles of pebbles and gravel from which, as stated in the press matter beneath the cut, the sabulous particles have been withdrawn. I ask if that representation and description coincide with what you intended to describe in your last answer.

A. The cut represents what I should suppose would be the condition of things when the tube is driven in gravel.

Cut in question offered in evidence as exhibit from Cowing & Co.'s circular.

5816 Cut received in evidence and marked as follows:

"United States Circuit Court, District of Minnesota. In Equity.

"William D. Andrews, George H. Andrews, Nelson W. Green,
and Martin S. James, Complainants,

against

"Royal D. Cone, Defendant.

"Complainants' Exhibit Number One on Surrebuttal.
"Cortland, N. Y., May 5th, 1882.
"[L. S.] M. STANLEY BIERCE,
"Notary Public."

C. Q. 31. Whatever may be the substance or material into which the tube is driven, if it be a mixture of coarser and finer particles, the finer of which can pass through the openings into the driven well, and the coarser, being too large, will be excluded from
5817 passage into the well, would not the coarser particles, whatever they may be, form themselves around the openings in the manner as shown in the cut, which is as if the space should first be filled with bullets and then the intervening spaces be filled with fine shot as representing the finer and coarser particles, the fine shot being withdrawn would leave interstices between the bullets or coarser particles while the bullets still filled the space; would not this be a proper representation?

A. I should suppose something of that sort must be the condition at the bottom of the well under the conditions named.

C. Q. 32. What is the rule for calculation friction of water or other liquids passing at a given speed through tubes, openings, or passages of varying sizes or diameters?

A. The rule given would be a certain co-efficient multiplied
5818 into the quotient of the length divided by the cross-section of the tube and this multiplied by the square of the velocity. This would represent the loss of head due to the friction. There would be added to this a certain quantity obtained by multiplying a co-efficient into the square of the velocity to represent the loss of head at the entrance of the tube. The values of these co-efficients must be determined by experiment. Each bend or turn of the tube would also offer resistance, occasioning a loss of head, which would have to be determined separately.

C. Q. 33. In accordance with the rule you have given, is not the friction of water through small spaces greatly increased over what it would be in passing through large spaces; speed, shape, and straightness being the same in each instance?

5819 A. There is no doubt that the friction is greater through small spaces than through large ones. Whether it would be much greater depends upon the velocity—I mean whether the loss of head in consequence of the friction would be much greater depends upon the velocity. When the velocity is very small the loss of head is very small in either case.

C. Q. 34. Is not the increased friction through a small tube or space over that through a larger tube or space proportionately the same whether at a high or low velocity, the velocity being the same in each tube or space?

A. It is proportionately the same, but if the loss of head in one
case amounts to, say, one-tenth of an inch of water, and in the other
case is ten times as great, or one inch of water, the increase is only
nine-tenths of an inch, which I should call a small increase. If, on
the other hand, on account of a higher velocity the loss of head in
the first case was one foot of water, in the second case it
5820 would be ten feet of water, a difference of nine feet.

C. Q. 35. If a certain amount of water will pass through a given-sized opening under the pressure of a head of five feet, how much head will be required to pass the same amount of water through the same opening in half the time?

A. It will take a head of twenty feet.

C. Q. 36. What is the difference, generally speaking, between the friction of water or other liquids, whether passing through crooked and irregular passages or in passing through straight tubular passages?

A. The resistance through crooked and irregular passages is the greater.

C. Q. 37. What is the difference in the friction of water
5821 passing through a straight tube one foot long and one inch
in diameter, or the same tube joined in the center at right
angles, each angle being six inches?

A. I do not remember the exact relation; I should say it was more than twenty-five per cent.; but in this case, as in the answer to a former question, the absolute loss is of more consequence than the relative loss. With a small velocity the absolute loss from the introduction of the elbow would be very small.

C. Q. 38. Is not the proportion exactly the same whatever the head?

A. It is so, as I understand it.

C. Q. 39. Do you or do you not know that it is so absolutely?

A. I feel perfectly confident that I have given the correct answer.

C. Q. 40. You are being examined in this case, Professor, as an
expert who has made hydraulics a study for twenty-five
5822 years. I am asking you these questions with the under-
standing that you are thoroughly conversant with all the
matters concerning which you were examined on your direct and in regard to which I am now questioning you, and when you answer me a question as being "as you understand it," it is not satisfactory. I assume that you have the knowledge to answer my questions positively, and that if you have not you should so answer. Now, I ask what is the relative friction of water passing through two pipes of equal length at the same velocity, the inner surfaces of the pipes being the same, the one being one inch in diameter and the other being four inches in diameter?

A. The loss in the first would be sixteen times as great as in the last.

C. Q. 41. If a head of four feet were required with the four-inch pipe to overcome the friction, then how much head 5823 would be required with the one-inch pipe?

A. I understand the four feet to be the loss of head due to friction only in the four-inch pipe. The loss of head in the one-inch pipe for the same velocity of flow, and all other conditions the same, except the diameter, would be sixty-four feet.

C. Q. 42. Do I understand you to say that you have no practical experience with driven wells?

A. None.

C. Q. 43. Then so far as driven wells are concerned the opinions you have here given are founded entirely upon experiments made in the laboratory by passing gases through chloride of calcium, are they?

A. I did not so state. I gave the experiment only as an example of some of the experiments upon which my opinions are founded.

5824 & 5825 C. Q. 44. Was or was not your opinion solely based, as you have stated, upon experiments, connected with the manipulation of gases in the laboratory, of the permeability of loose powders to gases?

A. I stated that it was not purely theoretical. My opinions are based upon my general knowledge of the theory of the friction of fluids and the results of experiments by others, as well as upon my own experiments.

C. Q. 45. In answer to question 14 did you say anything about your general knowledge of the theory of the friction of fluids, and did you not state precisely, as in my question 44, that it was based upon a knowledge derived from the general experiments, connected with the manipulation of gases in the laboratory, of the permeability of loos- powders to gases?

5826 A. My answer implied, if it did not state explicitly, that my opinions were based upon theoretical as well as experimental knowledge.

12.15 o'clock p. m.—Proceedings adjourned until 1.30 o'clock p. m. at this place.

5827 1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of WILLIAM A. ANTHONY resumed by WILLIAM D. ANDREWS, Esq.:

C. Q. 46. In answer to direct question 10, which was as to whether the production of an open well would be increased by filling it up with dirt and packing it tightly about the pipe, you said, "In my opinion the productiveness of the well could not be increased by such treatment." Have you ever had any experience in so filling up a well to ascertain whether its productiveness would or would not be increased?

A. I never have.

5828 C. Q. 47. In answer to direct question 11 you say that the air circulates through the earth more freely than the water, and any space left by the lowering of the water about the pipe would be immediately filled with air. Do you know that any such lowering of the water about the pipe of a driven well actually occurs when the pump is operated?

A. Such a lowering of the water to a small extent, at least, must occur, since the place of this water which passes into the pipe cannot be instantaneously supplied from a distance.

C. Q. 48. Do you know from actual experience that such lowering does occur and where it occurs, in relation to the driven-well tube?

A. I do not.

C. Q. 49. Then your answers in regard to this matter of atmospheric pressure and the lowering of the water about the well tube are theoretical, are they not?

A. My answers are based upon a knowledge of the general laws of the flow of fluids.

C. Q. 50. Have you any practical experience in regard to the matters inquired of in connection with the driven well?

5829 A. I have no experience in connection with the driven well.

C. Q. 51. Is not the pressure of the atmosphere upon the surface of the water within the earth, whether within six inches or sixty feet of a driven well, the same at all points within the radius of sixty feet from such a well?

A. In my opinion, it is sensibly the same.

C. Q. 52. Is the atmospheric pressure upon the surface of the water in an open well the same as it is upon the surface of the water in the earth surrounding it?

A. It is the same.

C. Q. 53. And if the water is all pumped out of an open well does not the same pressure of the atmosphere that rested upon the surface of the water rest upon the bottom of the well, and press with equal force against the sides of the well?

A. It does.

C. Q. 54. What amount is that pressure?

A. About fourteen and seven-tenth pounds per square inch.

5830 C. Q. 55. Suppose a well three feet in diameter, having water in it three feet deep, should be pumped dry, what natural force would bring water into it again from the surrounding earth?

A. The force of gravity, which causes water always to seek its own level.

C. Q. 56. Is any other force operative in that case?

A. I can conceive of no other force that causes the water to flow into the well.

C. Q. 57. Suppose an air-tight partition should be made across that well six inches below the surface of the water, by which all air should be excluded from the water beneath it, and the suction pipe of a pump be inserted through this partition into the water below it, the pipe having an air-tight connection with said partition, and the pump be operated so as — remove water from beneath it, what force of nature would then be called into use to replenish and replace the water so removed?

5831 A. Gravity and the atmospheric pressure, if the pump was worked rapidly enough to produce a partial vacuum below the partition; in other words, if the water was removed more rapidly than it could flow into the space by gravity alone. In that case the atmospheric pressure would be operative until the water in the earth in the immediate vicinity of the edge of the partition was lowered so that the air could find its way under it, when the effect of the atmospheric pressure would cease.

C. Q. 58. Then so long as the air could not gain access into the well the pressure of the atmosphere would be added to the force of gravity to bring water into the well, would it not?

A. The pressure of the atmosphere to the extent of the partial vacuum produced is operative. The entire pressure of 14.7 pounds per square inch would be operative only in case a perfect vacuum was produced under the partition.

5832 C. Q. 59. If a pump of sufficient size was operated with sufficient rapidity to remove ten pounds of atmospheric pressure from the surface of the water in the well, how much pressure would be added to the force of gravity to force water from the earth into the well?

A. I understand the question to mean that if a vacuum gauge were connected with the space below the partition that gauge would indicate a vacuum of ten pounds. In that case ten pounds per square inch, equal to a column of water about twenty-two feet high, would be added to the force of gravity. If the water were entirely removed from the well the force of gravity to bring the water into the well would be equal to a column of water three feet high. The atmospheric pressure in that case would add about seven times the force of gravity.

5833 C. Q. 60. Now, suppose these conditions to be continued, how much more water would flow into the well from the surrounding earth in one minute of time than would flow into the well without this partition, excluding the atmosphere from the surface of the water in the well, by the force of gravity alone, as you have previously stated?

A. While the atmospheric pressure was operative about three times as much per minute, but that condition of things could not continue for any great length of time, because the water in the earth in the immediate vicinity of the edge of the supposed partition would very soon be lowered so as to admit air to the space below the partition and so destroy all the effect of the atmospheric pressure.

5834 C. Q. 61. Then so long as the water in the earth was not lowered so as to admit air to the well below the partition the water would flow into it three times as rapidly as it would without the partition, would it not?

A. With the pump working so as to maintain the vacuum specified, yes.

C. Q. 62. Now, suppose the well to have fifteen feet of water in it and the partition to be put as before, within two and a half feet of the bottom, being air-tight, and the sides of the well from the partition to the bottom of the well were also air-tight and connected to the partition air-tight, so that no water could enter the well except through its bottom, and the pump was worked to produce a vacuum, as shown by the gauge, of ten pounds per square inch, then what would be the united forces of the head of water and the vacuum to force water into the well?

A. A column of water thirty-seven feet high.

C. Q. 63. Now, suppose the well being open and the water
5835 pumped down three feet in the well, what would be the pro-
portionate difference in the amount of water that would flow
into the open well under these circumstances and the water that would flow into that part of the well under the partition air-tight and under the circumstances as stated in the previous question?

A. A little more than three and a half times as much per minute into the space under the partition.

C. Q. 64. And would or would not continuous pumping lower the water in the earth under these circumstances, there being fifteen feet head of water above the bottom of the well, where only the water could have access into the well so as to admit air into the well to destroy the vacuum there created?

A. Continuous pumping would lower the water under such cir-
cumstances until air was admitted, because the very suppo-
5836 sition that the pump is working rapidly enough to produce
a vacuum of ten pounds implies that the pump is drawing
water faster than the water can flow towards the well by gravity, and under the influence of atmospheric pressure water would be forced into the well from the nearest space until that space is exhausted; so far as bringing water to the well from a distance is concerned, it is only gravity that acts, unless the disc or partition or something equivalent to it extends to a great distance.

C. Q. 65. Have you ever tried such an experiment which enables you to say that only gravity is operative unless the disc extends out as you have described in answer to the last question?

A. I have never tried such an experiment, but the principle of flow of fluids settles it beyond a question in the case supposed, which is that of a well in earth which permits the water to flow with equal freedom into the well and through the earth around it.

C. Q. 66. In answer to cross-question 51 you say that the
5837 pressure of the atmosphere upon the surface of the water
within the earth, whether within six inches or sixty feet of a
driven well, is, in your opinion, sensibly the same at all points within a radius of sixty feet of a driven well. Is it or not also the same within the same radius around an open well?

A. It is.

C. Q. 67. In regard to the pressure of water, air, or other liquids or fluids, is not the side pressure under any given head the same as the downward pressure?

A. It is.

C. Q. 68. Then is not the side pressure upon the water in the earth surrounding a well the same as the perpendicular pressure at a given distance from the surface of the water?

A. It is.

C. Q. 69. Then what prevents the water at ten feet horizontal distance from a well as readily moving horizontally in response to the
vacuum created in the bottom of the dug well as we have
5838 been discussing as to move, as you suppose, perpendicularly
fifteen feet through the same kind of earth? Please explain.

A. The water will undoubtedly flow towards the vacuum in all directions so long as it flows with equal facility.

C. Q. 70. Is not the tendency of all fluids to seek a level?

A. Under the influence of gravity alone, yes.

C. Q. 71. What is the weight of a cubic foot of water?

A. About sixty-two and one-half pounds.

C. Q. 72. What is the weight of a cubic foot of air?

A. About seventy-seven thousandths of a pound.

C. Q. 73. If water and air are together in any vessel or in any position where they are not separated by an impervious partition which will keep top and which bottom?

A. The air will keep at the top.

C. Q. 74. Then the pressure of the atmosphere upon the water in the earth will at all times be above the water in the earth, will it
not?
5839 A. So long as both are in equilibrium it will be so.

Q. 75. Please explain what you mean by both being in equilibrium.

A. I mean that the forces acting are in equilibrium so that there is no motion in any direction.

C. Q. 76. Then will or will not the pressure of the atmosphere upon a body of water, whether in free space or in the earth at the same distance below the surface of the water, cause it to flow with equal speed either laterally or perpendicularly downward if the lateral or under counteracting pressure is relieved?

A. The pressure of the atmosphere, so far as it has any influence, will tend to produce motion toward the point from which water has been removed.

C. Q. 77. How much influence has the pressure of the atmosphere?

A. To cause water to flow into a perfect vacuum, a force equal to a column of water thirty-three feet high.

5840 C. Q. 78. Is not the air which we call the atmosphere a
fluid?

A. It is.

C. Q. 79. And its pressure, is it not equal in all directions, like all other fluids?

A. It is.

C. Q. 80. And its perpendicular pressure being, as you have stated, about fourteen and seven-tenths pounds per square inch, or, as you have said in answer to question 77, equal to a column of water thirty-three feet high, does it not have an influence to produce motion equal to those pressures as given?

A. When the pressure of the atmosphere is unbalanced, yes.

C. Q. 81. Then why did you qualify your answer to question 76 with the preface that "so far as it has any influence?"

A. I did not fully understand question 76. If the counteracting forces are removed air has the same tendency to produce lateral as
downward motion. I was thinking of the case of water at a
5841 distance from a well, where, in consequence of the friction
through the soil, the counteracting forces are not removed, or
at least very slightly so; hence there is nearly equilibrium.

C. Q. 82. What are the counteracting forces to which you refer?

A. The pressure of the water already in the soil, which presses equally in all directions, and the atmospheric pressure above it, which also presses equally in all directions. If the water is not in motion these forces will be in perfect equilibrium.

C. Q. 83. Please explain how the water in the soil, which presses equally in all directions, becomes a counteracting force to prevent the tendency of air to produce lateral as well as downward motion.

A. I have said that the tendency of the air is to produce lateral as well as downward motion.

C. Q. 84. Is that the only explanation you have to offer why the
water in the earth is a counteracting influence to the air?

5842 A. Assume a point ten feet horizontally from a well and ten
feet below the surface of the water in the earth; the pressure of the water at that point is equal in all directions; the pressure of the atmosphere upon the surface of the water also produces a pressure at that point which is equal in all directions; now, suppose water to be removed from the well in any way, and that no air can penetrate to the space to take the place of the water, water will move toward the well from all directions, and with a velocity which depends upon the distance and upon the resistances which it meets with in the soil; the point supposed being at a distance from the well, the downward pressure of the water and air between the well and it produces an outward pressure away from the well nearly equal to the pressure produced toward the well from without, notwithstanding the fact of the removal of the water from the well and
the consequent flow of water toward it; such a particle at
5843 such a distance is therefore acted upon by a very small un-
balanced force in the direction of the well; it is only where
the water enters the supposed cavity that the force of the atmosphere and gravity together is what has been stated.

C. Q. 85. You have given us as a basis of your knowledge concerning what you have been testifying of, the flow of gases through tubes filled with loose powders, such as chloride of calcium, and say that the flow is through eight to twelve feet of six-inch tubes, at the rate of, say, one gallon every five minutes, under a pressure of only two or three inches of water. Am I to understand this to be the rate of the flow of gas or of water, and are the tubes supposed to lie horizontal or otherwise?

A. It refers to the flow of gas, but I see that my former answer

was incomplete, for I had in mind a recent experiment of that sort,
in which the gas escaped after passing through these tubes from an
orifice much smaller than a cambric needle, and the pressure
5844 — produce the flow was probably almost entirely required
at that orifice, and the pressure required to force that amount
of gas through the tubes filled with powder would therefore be much less; as to the position of the tubes, they were in this case what are technically known as U tubes, with the branches vertical, but the resistance would be the same in any case.

C. Q. 86. Now, with all due deference, I wish to ask what earthly connection these U tubes, filled with powdered calcium and gas passing through them and escaping through a hole no larger than a cambric needle, under a pressure of two inches of water, have to do with the driven well?

A. Questions have been asked having reference to the effect of atmospheric pressure in moving the water from a distance toward the
driven-well tube; I claim that the atmospheric pressure can
5845 have no sensible influence in so bringing the water from a
distance, unless the atmospheric pressure near the tube is less
than it is further away; the ease with which air flows through porous substances would prevent any such difference of pressure; these tubes were referred to as an example of the ease with which air flows through porous substances.

C. Q. 87. How does the porous substance with which those tubes were filled compare with sand or earth, which usually surrounds a well, as to its porosity?

A. It is a much finer substance, being like air-slaked quicklime in its consistency.

C. Q. 88. Have you ever heard anybody dispute the porosity of the earth in which wells are usually made, or that air could pass through very considerable depths of such earth without any sensible diminution of atmospheric pressure?

A. I understood it to be claimed that there was such a dif-
5846 ference of pressure between points near the well and at a dis-
tance away in consequence of the removal of the water by
the pump.

C. Q. 89. From whom did you understand there was a claim of such a difference of pressure?

A. I do not know how I obtained the idea; I cannot conceive of any benefit from the atmospheric pressure unless there is such a difference—any benefit, I mean, towards bringing the water from a distance laterally.

C. Q. 90. Where did you understand the point of least pressure was claimed to be and where the point of most pressure?

A. The least pressure near the pipe. At any distance from the pipe there would be the natural atmospheric pressure.

C. Q. 91. And is it this erroneous idea, as you claim, that you have
been for two days combating?

5847 A. That idea is only one among many that have been
brought up. I do not remember that it has been brought up
to-day previous to this time in this examination.

C. Q. 92. Are you aware that there are large numbers of driven wells in this town, in the town of Ithaca, where you reside, and large numbers of them in various parts of the country?

A. I have seen a few such wells in Ithaca and here, and have heard that there are many in this and other sections of the country.

C. Q. 93. How many have you ever seen or had any knowledge of?

A. I cannot tell; possibly fifty; possibly not so many.

C. Q. 94. How many have you ever operated?

5848 & 5849 A. As I said once before, I never operated any except occasionally—that is, I never had one for my own use.

C. Q. 95. How many did you ever operate occasionally?

A. I cannot tell.

C. Q. 96. Did you ever operate as many as five?

A. Yes; I have operated more than that.

C. Q. 97. How many more?

A. That is a thing I cannot answer.

C. Q. 98. Did you ever operate a driven well for the purpose of ascertaining its qualities, capacities, or of comparing it with any other well?

A. I never did.

C. Q. 99. Now, do you consider yourself in any sense an expert upon driven wells?

5850 A. As has been stated in the objection, I was called as a scientific expert. As such I consider myself a good judge of the scientific principles involved and of what may or may not be done through the action of the laws of fluid pressure.

C. Q. 100. While you consider yourself an expert as to what may or may not be done, I ask you, Do you know what has been done in the way of driven wells, the results that have been obtained by their use as compared with the results obtained by the use of other kinds of wells heretofore in use?

5851 A. As I have already said, I have had no personal experience with driven wells.

C. Q. 101. Then you do not pretend to be an expert in driven wells in any sense of the word, do you?

5852 I decline to answer further, as I have already stated what I claim to be.

C. Q. 102. Do you know of any advantages which a driven well possesses over an open dug well?

A. Yes; a driven well may in many cases be more cheaply constructed; it may often be driven deeper into the water-bearing stratum, thereby rendering it less liable to fail.

C. Q. 103. Does not a driven well, for the reason that it may be driven deeper and much deeper than an open well can be dug at anything like the same expense, obtain a great advantage by reaching a lower, cooler, and purer stratum of water than is obtained by an open dug well which necessarily obtains its supply from the surface drainage and is liable to fouling and contaminations from which the driven well is free?

5853 A. There is a great advantage, no doubt, from the greater depth, but I do not admit that an open well obtains its supply necessarily from the surface drainage; neither do I admit that a driven well is necessarily free from contamination from this source.

C. Q. 104. You have said that the water supplied to a dug well came into it solely by the action of gravity. As you pump from a dug well is not the surface water first brought into the well, and as the water in the well is lowered does not the surface water continue to be the most readily available and to come into the open well in much larger quantity than the water lower down, no matter what may be the depth of the well?

A. This is not necessarily so. In an artesian well, for instance, the water may come from a depth of hundreds of feet with a force far exceeding any tendency of the surface water to flow in.

(6 o'clock p. m.)

5854 Proceedings adjourned until Saturday, May 6th, 1882, at 8.30 o'clock a. m., at this place.

SATURDAY, *May 6th*, 1882—8.30 oclock a. m.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of WILLIAM A. ANTHONY resumed by WILLIAM D. ANDREWS, Esq.:

C. Q. 105. Did you understand my last question to have any reference to artesian wells?

A. The question did have reference to artesian wells, since artesian wells do not differ from dug wells in principle.

5855 C. Q. 106. Are dug and artesian wells alike in their methods of making, their mode of operation, and the principles upon which water is procured from them?

A. In their methods of making they are unlike. Some dug wells are exactly like some artesian wells in their mode of operation and the principle upon which water is obtained; for that reason I used the artesian well as an illustration in my answer to question 104.

C. Q. 107. Are you acquainted with the history of well making, and have you read any special works upon the subject?

A. I am not specially acquainted with the history and have made no special attempt to look up the literature of the subject.

C. Q. 108. Do you or not know that in all publications upon the subject of well making, that among well makers and the public at large a decided distinction and difference is recognized between an open dug well and an artesian well?

5856–5863 A. I know a distinction is recognized as to the mode of construction. I know that in publications upon the subject it is distinctly recognized that dug wells of moderate depth may obtain their supply of water in exactly the same way as artesian wells. What the view of well makers and the public is I do not know. I would like to state that I do not see the connection of this matter with that upon which I was called as an expert to testify, and I would respectfully ask that the examination be confined to such matters.

5864 C. Q. 109. In answer to cross-question 104, which was as
to dug wells, and dug wells only, you replied that as to the effect about which you were asked in an artesian well, for instance, &c. Now, I ask, was this reference to artesian wells any explanation or did it have any connection with the subject inquired about, to wit, the running of surface water into open dug wells?

A. It was an explanation and did have a direct connection with the subject of the question, the artesian well being used as an example, as being an extreme case, and therefore showing
5865–5867 more forcibly the fact.

C. Q. 110. When you speak of the water from an artesian well coming from depths of hundreds of feet with a force far exceeding any tendency of the surface water to flow in, please give us an instance of such action and the particulars concerning it, how it is accomplished, &c.

5868 A. I cannot, at this moment, name a particular instance,
but it is well known that there are wells over a thousand feet in depth which deliver water continuously with great force above the surface of the earth. As to the way in which this is accomplished, it is simply a case of water seeking its own level by
5869 the force of gravity.

C. Q. 111. Is this the kind of artesian well you referred to in answer to question 104?

A. It is.

C. Q. 112. Did you ever see an open dug well in which the water by force of gravity was forced upward and out at the top, thereby excluding surface water from said open well?

A. I have never seen such a well, but I have read of cases where veins of water were struck which rose above the level of the surface water which had been passed through in digging.

C. Q. 113. Where were any such wells and in what work did you read of them?

A. I read of them in some of the scientific journals; the locality I do not remember.

C. Q. 114. Did you ever hear of such a well in the United States of America?

A. I think the account I referred to referred to wells in the United States.

C. Q. 115. How many wells were referred to, what was their depth, and how long since did you read this?

5870 A. I have read such accounts at two or three different times;
the last one that I remember may have been five or six years since; the depth I have no memory of, and each account referred to only one well.

C. Q. 116. And was the reading of these two or three accounts of single wells seven years since, of which you knew nothing except this reading, of which you cannot remember the depth or the locality where made, your only reason for answering question 104 in these words, "It is not necessarily so; in an artesian well, for instance, the water may come from depths of hundreds of feet with a force far exceeding any tendency of the surface water to flow in?"

A. It is not the only reason; from the reading of the accounts
and from statements that I have heard from different parties it was
my impression that it was not an uncommon thing to strike veins
of water in digging a well which would rise considerably
5871 above the level at which the vein was first struck; one such
instance is enough to warrant my answer that "it is not necessarily so."

C. Q. 117. Were these open wells, which flowed over the top or above the surface water surrounding them, sunk in earth or rock?

A. In one case I remember distinctly that the water rose after the digging had extended through a bed of clay.

C. Q. 118. Do the exceptions which you have testified of comprise the entire foundation and reason for the first sentence of your answer to question 104, to wit, "It is not necessarily so?"

A. The question is already answered in answer to question 116.

C. Q. 119. In what words is the question answered in answer to question 116?

A. "From the reading of the accounts and from statements that
I have heard from different parties it was my impression that
5872 it was not an uncommon thing to strike veins of water in
digging a well which would rise considerably above the level
at which the vein was first struck."

C. Q. 120. You are a college professor and supposed to understand the exact meaning of language. In question 118 I asked if the exceptions which you have testified of comprised the entire foundation and reason for the first sentence of your answer to question 104. Your reply was: The question is already answered in answer to question 116. In question 119 I asked you to give the words in your answer to question 116 which answered that question. Do you now mean to say that you have in the answer to question 119 stated whether or not the exceptions you have testified of comprise the entire foundation and reason for the first sentence of your answer to question 104?

A. I mean to say that the foundation and reason of my an-
5873 swer to question 104 are contained in my answer to question
116.

C. Q. 121. Is or is not the entire foundation and reason comprised in your previous answers?

A. It is.

C. Q. 122. Did you ever, you yourself, see an open dug well in which the water raised above the surface water in the earth surrounding it?

A. In answer to question 112 I said: "I have never seen such a well."

C. Q. 123. How many open dug wells did you ever see?

A. I don't know.

C. Q. 124. Give your best estimate.

A. I could not say whether five thousand or fifty thousand.

C. Q. 125. In any of the dug wells you have ever seen does or does not the surface water necessarily run into the well?

A. I have seen dug wells which I was sure were not contaminated with surface water from the vicinity of the well. All wells receive their supply from the surface in some way.

5874 C. Q. 126. My last question did not ask whether you had
seen wells that were not contaminated by surface water. I repeat the question; it is: In any other of the dug wells you have ever seen does or does not the surface water necessarily run into the well? Please answer the question directly.

A. I said I was sure that the surface water did not get into some wells I have seen. If that is not an answer to the question I am unable to answer it.

C. Q. 127. Did you before say that you had seen wells that surface water could not get into? Please answer the question directly, yes or no.

A. That was the meaning of my answer.

C. Q. 128. In relation to the dug well which you testified of yesterday at the Iowa State Agricultural College, situated, I believe, at
Ames, Stony county, Iowa, did you consider that an unusual
5875 well in any particular, either as regards the soil in which it
was situated or the supply of water received from it as being either more or less than is usual from wells of that size?

A. As to the soil there was nothing unusual. The well did give an unusual quantity of water.

C. Q. 129. What was the nature of the soil and how deep was the well from the surface of the ground?

A. I think the top was a sort of clayey loam. The bottom of the well was in quicksand. It was, as I remember, not more than eight feet deep—that is, about five feet to the surface of the water.

C. Q. 130. Please give your definition of what you mean by "quicksand?"

A. I mean a sand that flowed in freely with the water, in which there seemed to be no clay or anything to give it cohesion.

C. Q. 131. Did this quicksand extend upward from the bottom
of the well as high or higher than the surface of the
5876 water in the well?

A. As I remember it the water stood above the quicksand; I think the water stood above the bottom of the layer of clayey loam.

C. Q. 132. In making the well and pumping, as you have testified, some fifty cubic feet of water per minute, did you pump out any sand with the water; and, if so, how much?

A. Some sand was pumped out with the water, but the suction pipe was kept as high as possible in order to avoid drawing the sand through the pump; only a small quantity of sand was removed in that way.

C. Q. 133. Can you tell whether you pumped out as much as one bushel of sand?

A. There was certainly more than that.

C. Q. 134. Was there ten bushels?

A. I have no idea whether there was or not.

C. Q. 135. Was the well walled up; and, if so, how and with what materials?

5877 A. A wooden curb was constructed and a wall of brick or stone, I forget which, was started on that curb or platform, and the sand worked from under the curb so that the latter gradually settled down by the weight upon it as the sand was removed.

C. Q. 136. When this well was finished this curb and brick lining wall extended to the bottom of the well three feet into the water, did it not?

A. It did.

C. Q. 137. Was this brick or stone wall laid in cement on the curb or was it loosely laid and pervious to water?

—. It was laid in cement and was, as I remember it, about eighteen inches or two feet thick.

C. Q. 138. When and how did the water from the surrounding earth gain access to this well?

A. It came up through the bottom and under the wall at the sides.

C. Q. 139. What was the amount of surface through which the water had access to the well?

A. Over the entire bottom, which was about eight feet in diameter—say about fifty square feet.

12 o'clock m.

5878 Proceedings adjourned until 1.30 o'clock p. m., at this place.

1.30 O'CLOCK P. M.

Convened pursuant to adjournment.

Present: As before.

Cross-examination of WILLIAM A. ANTHONY resumed by WILLIAM D. ANDREWS, Esq.:

5879 C. Q. 140. Suppose this dug well had been extended down to sixteen feet in depth below the surface of the water in precisely the same kind of soil that existed at its bottom, and all the circumstances being the same in each case, with the exception of the difference in depth and the supply of water, being as you have estimated, about fifty cubic feet per minute; what would have been the supply if it had been extended downward as supposed by the question until there was sixteen feet of water standing in the well instead of three feet?

A. I doubt if in that case there would have been much difference; in my judgment and the judgment of others the supply was a stream of water which flowed so freely through the quicksand that we were obliged to pump out a quantity of water nearly equal to the entire flow in order to lower the well the eighteen inches or so that enabled the men to work.

C. Q. 141. Then, in your opinion, deepening that well would not have increased its supply; is that so?

A. I did not think it would have materially increased the supply.

C. Q. 142. Was this a common or an exceptional case?

A. I should say an exceptional case.

C. Q. 143. Suppose this well had been made to the same depth in the same manner in every respect, except that it should have been but four feet in diameter instead of eight feet; what difference would that have made in the supply of water to be obtained from it?

A. I think it would have made very little difference.

5880 C. Q. 144. Then do I understand you correctly as believing that under the same circumstances of head and porosity of soil it would make very little difference whether there was a surface of fifty square feet or a little less than thirteen square feet through which the water was free to enter the well?

A. I mean that in that case the supply of water was limited by the quantity of water that reached the well from a distance; if the supply of water from a distance had been unlimited I have no doubt a hundred times as much would have entered under the same circumstances; the quantity of water which came into that well would depend very little upon the size of the well as long as that was large enough to admit all that came to it.

C. Q. 145. What amount of water would one hundred times the amount which entered that well be in gallons per minute?

A. Say forty thousand gallons.

5881 C. Q. 146. What would be the speed of the water entering that well, if, say, forty thousand gallons per minute came in?

A. About a hundred feet per minute or one and two-thirds feet per second.

C. Q. 147. How much water would this amount to in twenty-four hours?

A. About fifty-seven million gallons.

C. Q. 148. As the Croton water supply of the city of New York is estimated at ninety-five millions of gallons daily, according to your statement of your opinion, two open wells of eight feet in diameter having an unlimited supply of water entering them under an extreme head of three feet, under any circumstances, and a mean head of but one-half that, and in practice a head of two feet as an extremes, for the reason that it would be necessary to leave that space below the end of the suction pipe to prevent the taking up of sand, would furnish a sufficient amount of water to supply the city of New York; is or is not my calculation based upon that statement correct?

A. It is a correct calculation; a head of six inches would
5882 force forty thousand gallons per minute into an eight-foot pipe; and I believe the Croton aquaduct which supplies New York city is not over eight feet, if it is so, much in diameter.

C. Q. 149. Is the bottom of a well eight feet in diameter, filled with quicksand, the equivalent of an open pipe of eight feet in diameter; and if you say it is not, how much difference will it make in the passage of water through an opening eight feet in diameter?

A. It is not the equivalent; how much difference there would be it is impossible to say; in the well spoken of it was my opinion that the quicksand offered but little resistance to the inflow of the water; I should judge that two or three feet head at most would do, with the quicksand, all that six inches would do without it.

C. Q. 150. How much more water will pass through a given space under a head of two or three feet, as given in your last answer, than would pass through the same space under a head of six inches?

5883 A. Nearly two and a half times as much.

C. Q. 151. What portion of the opening in the bottom of the well was actually occupied by the grains of quicksand, as you have described?

A. I have no idea and no means of judging; I only know that in the construction of the well the pump for the first few hours lowered the water but very little, though pumping, as I estimated, some four hundred gallons per minute; it was kept running continuously, and after the first day kept the water down so that when the digging was stopped the men were working in some eighteen inches of water; from the fact that the pump at first only lowered the water a very little we judged that there was very little obstruction to the entrance of water into the well.

C. Q. 152. In your judgment, when sand is packed into a box or into the bottom of a well, does it or does it not occupy two or three times the amount of space which is left open between the particles of sand?

5884 A. When packed into a box or into a well I have no doubt it does do so, but when the water begins to flow through it with rapidity the sand will be moved and the obstruction to the flow much lessened.

C. Q. 153. Where is the sand moved to?

A. If the flow of water is upward some of the sand will be raised and kept partly in suspension in the water.

C. Q. 154. What speed of water per minute will raise and carry twenty-five per cent. bulk of sand with the water?

A. That I do not remember.

C. Q. 155. Did you ever know?

A. I have seen the results of experiments on the carriage of material of different sizes, both by water and by air, but I do not remember those results.

C. Q. 156. Did you ever make such experiments yourself?

A. I never did.

C. Q. 157. Is not the friction of water through pipes of different diameters or through passages of similar shapes and different areas substantially in the inverse ratio of their respective diameters?

A. It is.

5885 C. Q. 158. And is not the friction of water through pipes or spaces of a given size largely increased if those pipes or spaces are crooked and irregular?

A. It is.

C. Q. 159. And does or does not each right-angle change of motion consume twenty-five per cent. more power in friction than would be consumed by straight passage?

A. I think it does.

C. Q. 160. Do the spaces between grains of sand form a continuous straight passage, or is the passage between them at continually recurring angles?

A. I suppose they would usually be crooked passages.

C. Q. 161. What do you estimate would be the average diameter of the passages or spaces between the grains of sand, such as were in the bottom of the dug well of which you have been testifying, in parts of an inch?

5886 A. I have no idea of their size. I know as the water was coming into the well it boiled up in places as though it were keeping openings through the sand two or three inches in diameter.

C. Q. 162. What, in your opinion, is the average diameter of the grains of sand in the bottom of that well in parts of an inch?

A. Perhaps one-twentieth of an inch—perhaps larger, and perhaps smaller. I cannot say.

C. Q. 163. How would the size of those grains of sand compare with the size of grains of sand used by builders as to being larger or smaller?

A. I don't know.

C. Q. 164. Do you know what sea sand is—such as is found upon the beaches along ocean shore?

A. I do.

C. Q. 165. How would the sand upon the seashore compare with the sand found in the bottom of this well as to its being larger or smaller, coarser or finer?

5887 A. I don't know.

C. Q. 166. Would you term such sea sand or such builders' sand, if in water, quicksand?

A. I should.

C. Q. 167. Now, suppose the well put down in that place had been one foot in diameter instead of eight feet, all the circumstances other than the diameter being the same; how much water would have been produced from that well one foot in diameter per minute?

A. It is a question that can only be answered by experiment.

C. Q. 168. You have stated that water went into a driven well simply by gravity. Have you ever experimented to prove that?

A. I never made such a statement.

C. Q. 169. Does or does not the pressure of the atmosphere upon the surface of the water in the earth surrounding a driven well add to and 'assist the force of gravity in supplying water to such a well?

5888 A. Since I understand by Mr. Andrews that the driven well is simply the tube in the earth, I answer it does.

C. Q. 170. How much would be added to the capacity of a driven well, the upper openings into which at the lower end were three feet under water, if it were driven down in the same kind of soil until the upper openings were twenty feet below the surface of the water?

A. It is a question that it is impossible to answer. In very many cases nothing would be added to its capacity.

C. Q. 171. In answer to questions I have asked you concerning the deepening of open wells, I think you have answered that the capacity in a given soil and stratum of water would be increased as the square root of the depth. Is that correct as regards an open well?

A. The velocity of inflow is in proportion to the square root of the head. The capacity of a well depends sometimes upon the velocity of inflow, sometimes upon the quantity of water present in the
earth. If the quantity of water present is unlimited in the
5889 case of the driven well there would be no advantage in put-
ting it deeper than was necessary to prevent the upper openings ever being uncovered.

C. Q. 172. Does or does not the same rule hold good in the open well?

A. It does not hold good in the open well unless the water flows into the open well so freely that no amount of pumping can ever draw it to the bottom.

C. Q. 173. Then do you mean to be understood as testifying that a different principle governs the operation of a driven well from what governs the operation of a dug well?

A. A different principle governs the flow of water into the driven-well tube.

C. Q. 174. And do I understand you correctly as saying that the same principle governs the flow of water into an artesian as into an open dug well?

A. I do say so, that it is the action of gravity in both cases.

C. Q. 175. Then I understand you as testifying that there is
5890 a different principle brought into use in operating a driven well
from what is brought into use in the open dug and artesian wells; am I correct in that understanding?

A. When a pump is applied to an open dug well the same principles are used as in the driven well.

C. Q. 176. Are they used in the same manner and with the same effect?

A. They are used in the same manner and with substantially the same effect, so far as my experience goes.

C. Q. 177. What experience have you had to base that upon?

A. The only experience I have had is in operating the pump from both wells. Water rises in the pump pipe in both cases by the atmospheric pressure.

C. Q. 178. Does not the operation of the pump in the open well draw the water directly from the body of the well itself, from the free water standing in the well?

A. I do not understand what is meant by "the body of the well itself." The water is drawn from the free water standing in the well.

5891 C. Q. 179. Is not the water pumped from a driven well drawn directly from the earth surrounding the well?

A. It is.

C. Q. 180. Suppose I have a tube six inches in diameter and six feet long, with a head in the bottom end, and air-tight from top to bottom, the upper end being open, and I fill the tube with sand

and then pour into the tube as much water as will saturate that sand—and for the sake of the argument we will suppose that the tube will hold eight gallons of water in addition to the sand; now suppose that I have a vessel that will hold five or six gallons, from which vessel I remove the air and form a perfect vacuum therein; then by means of an opening and a cock I attach this vessel in which I have formed the vacuum to the side of the upright tube near its bottom by an air-tight connection, and then open the
5892 cock, putting the upright tube and the vessel in which is
the vacuum in communication, having previously interposed straining material upon the inside of the upright tube which shall prevent the passage of sand from one vessel to the other, but that will permit the passage of water—will or will not the water flow from the upright tube into the vessel in which the vacuum has been created?

A. It will flow.

C. Q. 181. What forces of nature are brought into operation to cause that flow?

A. The force of gravity acting upon the column of water in the upright tube, added to the atmospheric pressure, and diminished by the resistance due to the friction of the water in the sand.

C. Q. 182. Suppose the point of attachment of the vessel to the upright tube should be five feet below the upper end of the tube, what amount of pressure per square inch will the united
5893 head of water and the pressure of the atmosphere exert upon
the water in the tube to force it into the vessel in which the vacuum has been produced?

A. About seventeen pounds per square inch.

C. Q. 183. Now, suppose I shut the cock, remove the vessel in which had been formed the vacuum, but which is now filled with water, refill the tube with water up to its top, and without attaching anything to the cock, open it directly into the atmosphere, will or will not the water in the tube run out through that cock into the atmosphere and discharge the water from the upright tube down to the level of the opening to which the cock is attached?

A. It will run out, except what adheres to the sand.

C. Q. 184. Now, what force of nature causes that water to flow out into the atmosphere from the upright tube?

5894 A. Gravity acting upon the column of water in the tube
equal to a little less than two and a half pounds per square inch when the tube is full.

C. Q. 185. Will you please give us your best opinion as to how much resistance the sand, which we have supposed the tube to be filled with, obstructs the passage of water or reduces the pressure between the surface and the opening five feet below the surface on the supposition that the sand with which it is filled is similar to and about the same as is used for masons' building sand? Please give your best estimate of the loss of pressure in pounds and parts of pounds.

A. I have no data at hand from which to form any opinion. The resistance would depend upon the velocity of water moving through the sand, and the velocity would depend upon the resistance. In the first case, when the water is flowing into the vacuum the 5895 loss from friction would be greater than in the second, because of the higher velocity.

C. Q. 186. In answer to direct question six you stated that, in your opinion, a driven and an open well, under the conditions named in the question, would yield the same quantity of water. Now, suppose the conditions were altered by driving down the driven-well tube ten feet below the bottom of the open well, what, in such case, in your opinion, would be the relative quantities of water produced, all other conditions of soil, operations, &c., remaining the same, the only difference being in the increased depth of the driven well?

A. Increasing the depth of the driven well is equivalent to increasing the depth of the reservoir from which the driven well draws its water; this might render the well inexhaustible, it might increase it in proportion to the depth, or it might not increase it at all. 5896 To answer the question implicitly one would have to know the nature of the supply.

C. Q. 187. Then, if I understand your opinion correctly, it does not necessarily or even generally follow that the increased supply of water from a driven well over the supply from an open dug well is in consequence of its greater depth. Do I correctly understand your opinion on the subject?

A. I have not intended to be so understood. I believe in cases where the driven well has a greater capacity than an open well, in the same situation, it is due to the greater depth.

C. Q. 188. Is it not one advantage of a driven well that it can be put down much below an open well at a very small portion of the expense that would be required to sink an open well to the same depth?

A. It is an advantage, as I have said before.

C. Q. 189. Is it not a fact that a driven well for domestic or family use driven down fifteen, twenty, or more feet into water obtains purer water, free from surface drainage and of a lower tem- 5897 perature, than the *the* water obtained from an open dug well used for the same purpose?

A. I should say this might be so in most cases.

C. Q. 190. Suppose a driven-well tube be put down into the ground and five feet into a water-bearing stratum the surface of which is twenty-five feet below the surface of the ground and a pump attached to the upper end of the tube, which pump will be twenty feet above the surface of the water in the earth; when that pump is operated and water is discharged from it what force of nature causes that water to flow from its natural level in the earth up to that pump standing twenty feet above it?

A. The atmospheric pressure.

C. Q. 191. Where is that atmospheric pressure exerted?

A. On the surface of the water in the earth.

C. Q. 192. Suppose I take a box three feet in length, two feet in width, three and a half feet deep, fill it with sand to the depth

5898 of three feet and then at six inches from one end insert a tube three feet in length, six inches in diameter, open at both ends and made of perforated brass, having openings punched into it to the number of two or three hundred to the square inch, of about one-fortieth of an inch — diameter each, down through the sand to the bottom of the box and then remove the sand entirely from within it, then pouring in water upon the sand and within this perforated brass tube until the water stands on a level with the surface of the sand, both in the sand and in the tube, forming of the tube a mineature open dug well six inches in diameter and three feet deep; and having done this I next take an iron tube of half inch diameter, air-tight throughout its length, and attach to its end and extending six inches beyond it a tube of the same diameter made of perforated brass of the same thickness, number and diameter of holes to the square inch, with its lower end closed by a pointed
5899 plug, and I insert this tube down into the sand until the point reaches the bottom of the box and attach a pump by an air-tight connection to its upper end some ten to twelve inches above the surface of the sand in the box, and then connect another tube of the same size, length, and having the same size and style of point, to the upper end of which I attach by an air-tight connection a pump precisely like the one I have previously attached to the tube I have forced down into the sand and attach the two pumps to a cross-piece over the top of the box and to a lever having a standard and fulcrum exactly midway between the two pipes and pumps, and attach the working valves of the two pumps to this lever on each side of the central fulcrum and at exactly equal distances from it so that when this lever is worked each pump will have the same action as the other and the same length of stroke whether
5900 the stroke be made longer or shorter. I then attach a six-inch solid ring to the top of the six-inch perforated brass tube by slipping it over the same, making a reasonably close joint between them, and extending upwards above the top of the pipe, say, an inch and a half, for the purpose of preventing any water that may be upon the surface of the sand from running into the tube or open well over its top, but compelling all the water that enters it to pass through the perforations in its sides, which are in close contact with the sand as are the openings into the point of the tube which is driven directly down into the sand at the other end of the box, and which thus becomes a miniature driven well, having openings into its lower end over a surface of six square inches, closely surrounded by sand; the openings in the tube placed in the open well
5901 being of the same size and number of the openings into the tube of the driven well, but having this advantage, that they are free to the access of water instead of being partially closed by the surrounding sand as are the openings into the tube of the driven well; the perforated surface attached to the two well tubes being nine square inches and the perforated surface of the tube forming the lining of the open well having six hundred square inches of perforated surface through which the water is free to run around its entire circumference and throughout its entire length, giving open-

ings for the admission of water to the open well seventy times greater than the openings into the driven well and into the suction pipe of the tube in the open well. Now when I commence to operate these pumps, which are about two inches in diameter and six-inch 5902 stroke, at the rate of, say, forty strokes per minute, delivering the water pumped directly back upon the surface of the sand in the box, what, in your opinion, after five minutes' pumping, would be the relative amounts of water delivered during that time from each pump, the one drawing its supply from the driven well inserted directly into the sand and the other from the open well as described ?

A. The conditions are too complicated to permit a very definite opinion ; with the sand packed equally about both the large and the small tube I should say the pump in the open well would deliver the most water.

C. Q. 193. Now, if you should find by the actual working of the pumps, as described, the driven well had discharged double the amount of water that had been discharged from the open well in five minutes' working, to what would you attribute the difference?

5903 A. I should say the perforations in the large tube had become clogged, for the difference of pressure possible would cause only about five or six times as much water to flow through the same area in the driven as in the open well, while the area of the perforations in the open well are seventy or eighty times as great.

C. Q. 194. What have you reference to as the difference of pressure possible?

A. The pressure to force the water into the open well is, on an average, one and a half feet of water less the friction in the sand. The pressure to force the water into the pump tube of the driven well is two and a half feet of water added to the atmospheric pressure, equal in all to about thirty-six feet of water less the friction in the sand.

6 o'clock p. m.—Cross-examination closed.

And the said WILLIAM A. ANTHONY did further depose, testify, and say in answer to the following redirect interrogatories pro- 5904 pounded by JOHN W. SUGGETT, Esq., of counsel for defendant, as follows:

R. D. Q. 195. Was the chloride of calcium mentioned by you less porous than ordinary earth, in you opinion?

A. It is less porous than ordinary earth.

R. D. Q. 196. When a pipe with a pump attached air-tight to its upper end is placed in an ordinary dug, open well and operated does not gravity and atmospheric pressure added force the water into the pipe in response to the partial vacuum created by the pump?

A. In that case it is atmospheric pressure alone that forces the water into the pipe, since the water in the pipe from the level of the water in the well downward balances the pressure of the water outside.

Examination of this witness closed.

WM. A. ANTHONY.

Subscribed and sworn before me this 6th day of May, 1880.

[L. S.] M. STANLEY BIERCE,
Notary Public.

5905 In the United States Supreme Court. October Term, 1887.
In Equity.

WM. D. ANDREWS *et al.*
vs. } No. 16.
GEORGE HOVEY.

It is hereby stipulated and agreed by and between the plaintiff and the defendant hereto that the clerk shall have the record printed in the above-entitled case as soon as practicable. After printing the bill of complaint and amendments and the answer and amendments and the replication he shall omit the affidavits, motions, and rulings of the court on the same for a temporary injunction. He shall omit the motion, affidavits, and rulings on the applications for more time to take testimony. He shall print the evidence of all the witnesses, both for complainants and defendants, and the exhibits on both sides in said case as sent up from the circuit court wheather the same be entitled in the name of these complainants *vs.* John Thee, Thomas Dobson, Geo. Leland, or Geo. W. Brown.

5906 In printing the testimony the clerk shall omit all the notices and services on the same, all objections to the evidence, and all statements of attorneys that were taken down by the notaries, and omit the certificates of the notaries, printing only the name of the witness, date of examination, and at the end the signature and jurat, so as to print the questions and the answers to the same.

In addition to the witnesses, exhibits, and the matters in the Hovey case the testimony of the following-named witnesses shall be taken from the records in the Cone case, No. 156, Oct. term, 1887, and printed in this case:

Witnesses examined by the complainants: Zachariah Smith, Martin S. James, H. C. Horine, and the following-named witnesses examined by the defendant: Prof. Wm. A. Anthony, James Suggett, Albert S. Rollo, James O. Foster, and Cornelius Brown and John S. Sampson, and this shall constitute the record on which the
5907 above-entitled cause shall be heard by the Supreme Court; to all of which both parties have hereby agreed upon the special statement of the clerk that he would be entitled to fees for supervising the record for only that portion of the Cone case that was transferred to this case.

If on the presentation of this stipulation the clerk demands fees for supervising more of the record in the Cone case than is transferred to this, then the whole of the evidence stipulated to come in from the Cone case is to be left out.

Washington, D. C., Aug. 3d, 1887.

J. C. CLAYTON,
Counsel of Record for Appellant.
JED. LAKE,
Counsel of Record for Appellee.

5908 [Endorsed:] Sup. Court U. S., 1887. Oct. Term. No. 16. Wm. D. Andrews *et al. vs.* George Hovey. Preliminary stipulation as to omissions in printing record, &c.

[Stamped:] Office Supreme Court U. S. Filed Aug. 4, 1887. James H. McKenney, clerk. Filed Aug. 4, 1887.

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We hereby stipulate and agree that the foregoing is a full & correct schedule of all the material pleadings and proofs contained in the original record and covered by our stipulation of Aug. 3d, 1887.

J. C. CLAYTON,
Counsel of Record for Appellants.

I agree to the foregoing with the addition set out in Exhibit "A," as agreed by myself & Mr. West, and which is hereto attached.
August 15, 1887.

J. M. LAKE,
Counsel of Record for Appellee.

5925

Exhibit A.

Marriage certifficate Jed. Lake to S. E. Meyer. Original pattent to N. W. Green, No. 13425; Hovey's patent No. 123,903; Feb'y 20th, 1872.

The abstract of these exhibits are shown in the printed pages attached hereto; and it is agreed that as to the exhibits, except the patent to Green, No. 73425, and to Hovey, No. 123,903, may be copied from these printed pages as numbered 237, 238, 239, and top part of 240 and page 243. These are to be added and printed as shown on these pages, it being agreed that the same are as used in the trial of the court below.

With this addition the index is agreed to.

JED. LAKE,
Counsel of Record.

I, A. R. West, counsel in the court below, and to whom this index was sent to have it signed by Mr. Lake, certify that I agree to the foregoing additions as the same were used in the trial in the circuit court.

A. R. WEST.

5926 In the Supreme Court of the United States.

WILLIAM D. ANDREWS *et al. vs.* GEORGE HOVEY.

In the index presented to me for signature I find that several exhibits are not set out in this index.

At the top of page XIV of index is the heading: Exhibits offered.

These should have been set out and are:

Extracts from Guardian, of date in July, 1861; two papers under the head of Guards Ready.

Roster Co. E, 5th Iowa Inf't'y.
Roster Co. C, 9th Iowa Inf't'y.
Roster Co. B, 4th Iowa Cavalry.
Mortgage, J. Sherwood to A. H. Trask.
Receipt C. T. Kimball to J. Sherwood.
Receipt, Hallam to Sherwood & Kimball.
Order, Tweedale to Ainsworth.
Deed, Cummings to Tyson.
Deed, Cummings to Ross.
Deed, Brown to Deering.
" Trexler to Kayes.

5927 EXHIBIT "B."

Be it known that I, Thomas Sherwood, of Buchanan county, State of Iowa, in consideration of the sum of fifty dollars in hand paid by A. H. Trask, of Buchanan county, State of Iowa, do hereby bargain and sell unto said A. H. Trask the following property, to wit: One two-horse black hack, formerly known as one of the People's Line, and the only one now in my possession—conditioned as follows: That the said Thomas Sherwood shall pay or cause to be paid unto the said Ami H. Trask, his heirs, administrators, or assigns, the sum of fifty dollars as follows, to wit: Fifty dollars on or before the 1st day of December, 1860, with 10 per cent. interest, according to the tenor of certain promissory notes of even date herewith, together with all costs of taking the property by virtue of this instrument and the keeping and sale thereof; then this instrument to be void; otherwise to be in full force.

And it is further agreed by the parties to the instrument that at any time the said Trask shall deem himself insecure it shall be lawful for the said Trask to enter upon the premises of the said Sherwood and to take, there or elsewhere, the said property and sell the same at public sale, returning the surplus to said Thomas Sherwood, deducting the indebtedness named herein and costs of taking, keeping, and selling the property.

Signed this 20th day of October, A. D. 1860.

THOMAS SHERWOOD.

STATE OF IOWA,
Buchanan County, } *ss:*

On this 20th day of October, A. D. 1860, before me, a notary public in and for said county, came Thomas Sherwood, to me personally known to be the identical person whose name is affixed to the above instrument, and acknowledged the same to be his voluntary act and deed.

JAMES JAMISON,
Notary Public.

EXHIBIT "C."

Received, Independence, April 20, 1861, of Sherwood & Kimball, their account in full of all demands.

J. K. HALLAM.

EXHIBIT "D."

$600.

INDEPENDENCE, *March* 2, 1861.

James Ainsworth:

Please pay the bearer, Sherwood & Kimball, six dollars, due on board, and oblige,

P. TWEEDDALE.

EXHIBIT "E."

Received, April 27, 1861, of Thomas Sherwood, $35.42, to apply on account.

CHARLES T. KIMBALL.

5928 *Abstract of Deed.*

(Book 14, page 284.)

Charles W. Cummings (guardian of George Cummings, James Cummings, and Henry Cummings), of Buchanan county, Iowa, to Timothy H. Tyson, of Buchanan county, Iowa, conveys lot five (5), in block two (2), in Stoughton & McClure's 2nd addition to Independence, formerly New Haven, in said county. Full warranty deed.

Signed the 14th day of October, 1859, by—

C. W. CUMMINGS.

In presence of—
STEPHEN J. W. TABOR.

Acknowledged by Charles W. Cummings the 14th day of October, 1859, before—

STEPHEN J. W. TABOR,
County Judge.

Approved this 14th day of October, 1859, by—
[L. S.] STEPHEN J. W. TABOR,
County Judge.

Abstract of Deed. Filed for Record August 5, 1861.

C. W. Cummings to E. Ross.

Charles W. Cummings, guardian of Henry, James, and George Cummings, of Buchanan county, Iowa, conveys to Edward Ross, of Buchanan county, Iowa, lot eight, block three, Stoughton & McClure's 2nd addition to Independence, Buchanan county, Iowa. Full warranty deed.

Signed April 20th, 1861.

C. W. CUMMINGS,
Guardian for Henry, James, and George Cummings.

In presence of—
STEPHEN J. W. TABOR.

Acknowledged April 26, 1861, before—
STEPHEN J. W. TABOR,
County Judge.

Approved August 5, 1861, by—
STEPHEN J. W. TABOR,
County Judge, Buchanan County, Iowa.

Abstract of Deed.

B. F. Brown and wife to E. H. Deering.

Book 19, page 21. Warr. deed. Filed Mar. 4, 1862, at 9 a. m.

Benjamin F. Brown, Elizabeth R. K. Brown, his wife, of Dane county, Wisconsin, to Emeline H. Deering, of Buchanan county, Iowa. Lot one, block seven, in Stoughton & McClure's 2nd addition to the village of Independence. Full warranty deed.

Signed by—
BENJAMIN F. BROWN. [L. S.]
ELIZABETH R. K. KRESS. [L. S.]

In presence of—
JAMES J. BROWN AND C. ABBOTT.

5929 Acknowledged by Benjamin F. Brown and Elizabeth R. K. Brown the 13th day of February, A. D. 1862, before—
[L. S.] CHAUNCEY ABBOTT,
Notary Public, Dane County, Wisconsin.

Abstract of Deed.

Anton Hageman and wife to Margaret A. Jordan.

Book 16, page 561. Warranty deed. Filed September 16, 1862.

Anton Hageman and Catharine Hageman, of Buchanan county, Iowa, to Margaret A. Jordan, of Buchanan county, Iowa. The north half of lots 5 and 6, in block 9, in Stoughton & McClure's addition to Independence, Iowa. Full warranty deed.

Signed September 16, 1862, by—

ANTON HAGEMAN.
her
CATHERINE x HAGEMAN.
mark.

In presence of—
JAMES JAMISON.

Acknowledged by Anton Hageman and Catherine Hageman the 16th day of September, 1862, before—

[L. S.]
JAMES JAMISON,
Notary Public, Buchanan County, Iowa.

Abstract of Deed.

J. E. and Valeria Trexler to James R. Kays.

Book 27, page 17. Filed December 12, 1865, at 5 p. m.

J. E. Trexler and Valeria Trexler, his wife, of Buchanan county, Iowa, to James R. Kays, of Buchanan county, Iowa, conveys lot 5 and 19 feet of the west side of lot 6, in block 22, in Stoughton & McClure's 2nd addition to Independence, Buchanan county, Iowa. Full warranty deed.

Signed December 12, 1865, by—

J. E. TREXLER.
VALERIA TREXLER.

In presence of—
D. D. HOLDRIDGE.

Acknowledged the 12th day of December, 1865, by J. E. Trexler and Valeria Trexler, before—

[L. S.]
D. D. HOLDRIDGE,
Notary Public, Buchanan County, Iowa.

Copy of Certificate of Marriage.

Jed. Lake to Sarah E. Myer.

5930 This certifies that on the 1st day of January, A. D. 1861, I, John Fulton, a minister of the Gospel, united Jed. Lake, aged 33 years, and Sarah E. Myer, aged 18 years, in the holy bonds of matrimony.

Witness my hand, at Buffalo Grove, this 1st day of January, A. D. 1861.

JOHN FULTON.

5931 *Roster of Co. "E," 5th Iowa Infantry.*

Adj. Gen'l's Report, made Jan. 1, 1863, vol. 1, page 186.

Name.	Age.	Residence.	Rank.	Date of going into quarters.	D'te of must'r into service.
Daniel S. Lee	42	Independence, Ia	Capt	July 1, 1861.	July 15, 1861
George C. Jordan	—	" "	1st l't	"	"
Alexander B. Lewis	24	" "	1st l't	"	Mar. 22, 1862
Wm. S. Marshall	29	" "	2d l't	"	July 13, 1861
Carlos L. White	29	" "	2d l't	"	Apr. 1, 1862
Carlos L. White	29	" "	1st ser	"	July 15. 1861
Thomas Blonden	26	" "	1st ser	"	Mar. 1, 1862
* * *	*	* *	*	*	*
Thomas Blonden	26	Independence, Ia	3d ser	July 1, 1861	July 15, 1861
Charles F. Putney	23	" "	3d ser	"	....
Alexander B. Lewis	24	" "	4th ser	"	July 15, 1861
* * *	*	* *	*	*	*
Charles F. Putney	23	" "	8th cor	"	July 15, 1861
* * *	*	* *	*	*	*
William Codling	28	Oran, Ia	Priv	"	"
* * *	*	* *	*	*	*
John A. Davis	29	Fairbank, Ia	Priv	"	"
* * *	*	* *	*	*	*
Almon I. Francis	32	Hazleton, "	"	"	"
* * *	*	* *	*	*	*
Richard Whait	34	Independence, Ia	"	"	"

Enrolled in the county of Buchanan, ordered into quarters by the Governor of the State June 29, 1861, and mustered into the service of the United States by Lieutenant Alexander Chambers, U. S. A., at Burlington, July 15, 1861, under the proclamation of the President of the United States, bearing date May 3, 1861. From place of enrollment to rendezvous, 300 miles.

Roster of Co. "C," 9th Iowa Infantry.

Adj't Gen'l's Report, made Jan. 1, 1863, vol. 1, page 336.

Name.	Age.	Residence.	Rank.	Date of going into quarters.	D'te of m'st'r into service.
Jared M. Hord	32	Independence, Ia	Capt	July 20, 1861	Sep. 2, 1861
* * *	*	* *	*	*	*
Edmund C. Little	18	" "	2d l't	Aug. 6, 1861	Sep. 24, 1861
* * *	*	* *	*	*	*
Julius Furcht	19	" "	Priv	Aug. 20, 1861	Sep. 24, 1861
* * *	*	* *	*	*	*
Nelson Hovey	18	" "	Priv	Aug. 12, 1861	Sep. 24, 1861

Ordered into quarters by the Governor of the State July 30, 1861, and mustered into the service of the U. S., at Dubuque, on the 24th of September, 1861. From place of enrollment to rendezvous, 75 miles.

Roster of Co. "B," 4th Cavalry.

Adj't Gen'l's Report, made Jan. 1, 1861, vol. 2, page 515.

Name.	Age.	Residence.	Rank.	Date of going into quarters.	Date of muster in service.
John H. Peter-........................	32	Delaware county, Ia...	Capt......	Sep. 2', 1861	
* * *	*	*	*	* [Joined	from Co. "L."
Martain F. Rust........................	21	Buchanan county, Ia..	Priv	Dec. 9, 1861	Jan. 1, 1862

Enrolled at Delaware and other counties, ordered into quarters by the Governor of the State ——, 1861, and mustered into the service of the U. S. at Mt. Pleasant, Iowa.

5932 [Endorsed:] Sup. Court U. S. Oct. term, 1887. No. 16. Wm. D. Andrews *et al.*, app'ts, *vs.* George Hovey. Supplemental stipulation in regard to printing and addition to record.

[Stamped:] Office Supreme Court U.S. Filed Aug. 22, 1887. James H. McKenney, clerk.

Endorsed on cover: S. Iowa C. C. U. S. No. 16. William D. Andrews, George H. Andrews, Nelson W. Green, and Noah J. Parsons, appellants, *vs.* George Hovey. Filed 29th October, 1883.

123-267

U. S. Supreme Court,

OCTOBER TERM, 1887.

No. 16.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS,
NELSON W. GREEN AND NOAH J. PARSONS,
Appellants,
vs.
GEORGE HOVEY,
Appellee.

Appeal from the Circuit Court of the United States for the Southern District of Iowa.

BRIEF FOR APPELLANTS.

JOSEPH C. CLAYTON,
ANTHONY Q. KEASBEY,
Of Counsel with Appellants.

Oct. 3, 1887.

NEW YORK:
JOHN POLHEMUS, Printer and Mf'g Stationer, 102 Nassau St.
1887.

APPELLANT'S BRIEF.

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U. S. Supreme Court,

OCTOBER TERM, 1887.

WILLIAM D. ANDREWS, GEORGE H. ANDREWS, NELSON W. GREEN and NOAH J. PARSONS, Appellants, *v.* GEORGE HOVEY. Appellee.	*No. 16. Appeal from the Circuit Court of the United States for the Southern District of Iowa.*

Brief for Appellants.

This is an appeal from a final decree of the Circuit Court of the United States for the Southern District of Iowa. That decree held that the patent generally known as the Green Driven Well Patent, reissue No. 4,372, was invalid. That patent had been previously sustained after vigorous contests in the following cases:

1. Andrews *v.* Carman, Judge Benedict, 13 Blatch., 307.

2. Andrews *v.* Wright, Judges Dillon and Nelson, 13 O. G., 969.

3. Hine *v.* Wahl, Judge Gresham, no opinion.

4. Andrews *v.* Cross, Judge Blatchford, 8 Fed. Rep., 269.

5. Green *v.* French, Judge Nixon, Fed. Rep., 591.

6. Andrews *v.* Creegan, Judge Wheeler, 7 Fed. Rep., 474.

7. Andrews *v.* Eames, Judge Shipman, 15 Fed. Rep., 109.

8. Hine *v.* Wahl, October Term, 1882, in the Supreme Court. In this case, the patent was sustained by a divided Court, no opinion being written.

The defenses in the case at Bar are identical with those in the voluminous cases heard and determined in Andrews *v.* Carman and Andrews *v.* Wright, by Judges Benedict and Blatchford, except as to two or three mythical alleged prior uses.

The issues and proofs relating to the history of the invention, its alleged dedication and abandonment, and Green's alleged knowledge of its public use for more than two years before his application, were the subjects of the depositions of the same witnesses, when facts were (in the Carman case) ten years fresher. And in all the prior cases (except Andrews *v.* Creegan) the reissue question was fully discussed.

9. The patent was also construed and sustained in accordance with the opinions of Judges Benedict and Blatchford by Judge McCrary in the case of Andrews *v.* Long, 12 Fed. Rep., 871, but the bill was dismissed because of non-infringement.

10 and 11. Andrews *v.* Hovey, and Andrews *v.* Cone. These two cases, the latter being from the District of Minnesota, were heard before Judges Shiras, Love and Nelson ; Judges Shiras and Love holding the patent invalid, and Judge Nelson dissenting and sustaining the patent. The proofs in these two latter cases, as to most of the witnesses, were substantially identical, with the main exception that in the Cone, or Minnesota case, a few witnesses were examined who were not examined in the Hovey or Iowa case. At the last term, an order was made concerning the printing of the record in the Hovey and Cone cases, and they were ordered

to be heard together. Recently the counsel for the respective parties in the Cone case have filed a stipulation to the effect that the Cone case shall abide the result of the Hovey case, and in this way the Court and counsel have been relieved of much labor, and the parties have been saved the great expense of printing the record in that case. By stipulation of the counsel in the Hovey case, portions of the proofs in the Cone case which were not taken in the Hovey case have been stipulated and printed in the record of the Hovey case, so that this Court now has before it substantially all of the evidence of any materiality that was submitted at the hearing below in both cases. The stipulations in regard to the printing of the record are found at pages 2,143 and 2,144.

12 and 13. These were the cases of Eames *v.* Andrews, and Beedle *v.* Bennett, in which elaborate opinions were filed in this Court, construing and sustaining the patent in question, last term, and of course are regarded as conclusively settling all points referred to in said opinions, especially the questions of reissue, abandonment, two years' use before application and origin of invention.

Assignment of Errors.

As Judges Shiras and Love each filed an opinion, the Assignment of Errors will be addressed to the findings contained in both of these opinions.

These appellants assign as error in the findings of the Court below:

1. For, that the Court erred in finding that the patentee dedicated or abandoned his invention to the public prior to applying for a patent therefor, which finding is contrary to the evidence and the weight of evidence.

2. For, that the Court erred in finding that the invention of Nelson W. Green was in open and public use, with his knowledge and acquiescence, for more than two years before he applied for a patent therefor, which finding is contrary to the evidence and the weight of evidence.

3. For, that the Court erred in finding upon the conclusions of fact, as to the dedication or abandonment and public use, with acquiescence, that the reissued Letters Patent No. 4,372 were invalid and void, which finding is contrary to the evidence and the law.

4. For, that the Court erred in finding that the said reissue No. 4,372, is void, because it embraces that which was not covered by the original invention of the patentee, and because the said reissue departs widely from the original, which findings are contrary to the evidence and the law.

5. For, that the Court erred in finding "that in the early part of the Summer of 1861, there was constructed at Independence, Iowa, a driven well which proved a success." "That this well was constructed by driving a tube down into a water bearing stratum and by attaching to the tube a pump by which the water was drawn through the tube in apparently inexhaustible quantities," which findings are contrary to the evidence and the weight of evidence.

6. For, that the Court erred in finding that E. W. Purdy, long prior to N. W. Green's invention, made at Milwaukee a number of wells, by and according to a method substantially identical with that described and claimed in the patent of N. W. Green, which finding is contrary to the evidence and the weight of evidence.

7. For, that the Court erred in finding that the defense of want of novelty was sustained, which finding was contrary to the evidence and the weight of evidence.

8. For, that the Court erred, as matter of law, in finding that there was a preponderance in favor of the defendant concerning the construction and date of the Independence well, and in holding that the mere preponderance of evidence in favor of the defendant is sufficient to overcome the *prima facie* validity of the patent, which finding is against the evidence and the law.

9. For, that the Court erred in holding that Nelson W. Green had knowledge of the public use of his invention for more than two years before his application for the patent, which finding is contrary to the evidence and the weight of evidence.

10. For, that the Court erred in accepting presumptive evidence concerning such knowledge by Nelson W. Green, against his distinct and positive testimony that he had not such knowledge, which finding was contrary to the law.

11. For, that the Court erred as matter of law in finding that the 7th section of the Act of 1839 should be construed as meaning that two years' public use of an invention prior to the application for the patent was a bar to the grant of the patent, and that a patent so granted would be invalid, even though the inventor did not know of, assent to, or allow such public use—which finding is contrary to the meaning of said statute and contrary to law.

12. For, that the Court erred in *not* finding that the reissue No. 4,372 was good and valid in law.

13. For, that the Court erred in not finding that the title of said patent was vested in the complainants, as charged in the bill.

14. For, that the Court erred in not finding that the defendant had infringed upon the rights of the complainants under said reissue No. 4,372.

15. For, that the Court erred in finding in favor of the defendant, whereas the Court should have found, upon all points, in favor of the complainants.

The Defenses.

The following defenses were urged in the answer and proofs. Some of them were not urged at the hearing below:

1. Reissue question.
2. Non-infringement.
3. Prior publication and patents.
4. Dedication and abandonment.
5. Prior public use by others in this country. Under this defense the answer and proofs relate to several alleged prior wells.

    a. The so-called Purdy or Milwaukee well.
    b. The so-called Independence well.
    c. The so called Preble or Tallman well.
    d. The so-called Buxton or Warsaw well.
    e. The so called Naperville well.

We have been favored with a copy of the brief prepared by counsel for the appellee in this case, which was to have been submitted to this Court at the last term, at the time that this case was expected to be argued. In this brief no stress is laid upon any of these alleged prior wells, except the Independence well. We may fairly claim that the appellee had decided, in his own mind, that no importance was to be attached to the Milwaukee, Preble or Tallman, and Buxton or Warsaw wells or the so called Naperville well. The Court below in its opinion referred only to the Independence and Milwaukee alleged wells, so that we may fairly claim that the Court attached no importance to the Preble, Warsaw and Naperville alleged wells. The answer enumerates sixteen prior publications, but the record contains, under the stipulation above referred to, only three of the many enumerated in the answer. One of these three, the one printed on page 1,570 of the record, was considered and overruled by this Court in the late case of Eames against Andrews. The publication referred to, opposite page 1,609 of the printed record, does not appear to describe the construction or operation of the tools indicated in the said drawing, and we cannot determine what it relates to, except that it is said to be a drawing found in Reese's Cyclopædia, and we find that two publications from Reese's Cyclopædia were considered and overruled in this Court in the case of Eames against Andrews. So that we are left to consider, at a later stage in our brief, only the single publication printed on page 1,571 of the record. The answer also sets up the names of 130 persons who are alleged to have had prior knowledge of the use of this invention in this country. The answer also avers that these 130 witnesses had (or some of them), knowledge of prior use at *many other* places than Independence, Milwaukee, Preble, Warsaw and Naperville, but no proof of any kind is produced except as to the alleged use at the four places just named. But one witness is called as to the Milwaukee well, which ist he only well distinctly held in the opinion of the Court below to have been an anticipation of Green's invention. We will clearly show that this Milwaukee well was an old fashioned Artesian well, entirely different in construction and operation from Green's invention. The answer also sets up several prior patents alleged to have been granted before Green's invention, none of which are in evidence. We will consider these various defenses somewhat in detail.

The Reissue Question.

In the case of Eames against Andrews, decided at the last term in a very careful and elaborate opinion, this Court held that the reissue was good and valid in law. Also so held in Beedle *v.* Bennett at the same term. It is, therefore, needless to occupy any time upon this defense, and we therefore pass it without argument. The construction of the patent was also definitely settled in the opinions just referred to, and upon that construction we rely. In those opinions the Court quoted with approval the construction of the patent given by Judge Benedict in Andrews *v.* Carman, 13 Blatch , 307, who used the following words: "I therefore understand this patent to be a patent for a process, and that the element of novelty in this process consists in the driving of a tube tightly into the earth, without removing the earth upwards, to serve as a well pit, and attaching thereto a pump, which process puts to practical use the new principle of forcing the water in the water bearing stratum of the earth, from the earth into a well pit, by the use of artificial power, applied to create a vacuum in the manner described."

In the two opinions of this Court above referred to, the Court accepted and approved the opinions and findings of Judges Benedict and Blatchford.

So that we may rest our case as having been previously decided on all important points in the four following cases:

1. Andrews *v.* Carman, Judge Benedict.

2. Andrews *v.* Cross, Judge Blatchford.

3. Eames *v.* Andrews, Supreme Court.

4. Beedle *v.* Bennett, Supreme Court.

Should the Court care to refresh itself concerning any point relating to the nature, character and origin of the invention, the patent and its construction, or any points relating to the question of reissue, it is respectfully referred to the very carefully prepared brief by Mr. Clayton in the case of Eames *v.* Andrews above referred to, copies of which brief are bound at the end of this brief as a part thereof; but, as this case has been twice orally and fully argued in this Court in all its substantial points, save only the alleged prior wells, once in 1882 and once last term, it would seem needless to refer to any of the points raised in either of these cases. The only points, therefore, that we have to consider are the following, and we will dwell upon them in their order:

1. The invention and its character; the patents and its construction.

2. Infringement.

3. The Purdy or Milwaukee Well.

4. The Independence Well.

5. The Warsaw Well.

6. The Tallman or Preble Well.

7. The so called Naperville Well.

8. Prior patents and printed publications.

9. Dedication or Abandonment, whether or not Green had knowledge of the public use of his invention for more than two years before he made his application, and the construction of the statute governing this question of the prior knowledge.

It may be said generally that the Independence Well was the subject of the testimony of a great many witnesses, indeed, all of the material witnesses who appear in this case, and that their testimony was considered and overruled by Judge Blatchford in the case of Andrews against Cross.

The material parts of the same evidence were also introduced in the case of Green against French before Judge Nixon, but was not even referred to at the hearing. The same witnesses in this case, and others in addition, testified concerning the Warsaw well in the case of Green against French, which was decided in favor of complainant by Judge Nixon. The Milwaukee well has not been presented to any Court, except in this case. The testimony concerning the Preble well was before Judge Blatchford in Andrews *v.* Cross, and was overruled; and there are a few additional cumulative witnesses in this case. All the material testimony in this case relating to delaying the application, dedication and abandonment, and date of the invention, its nature and character, were contained in the case of Andrews *against* Carman, and were overruled by Judge Benedict, and the sum of this evidence was fairly stated in the agreed case as to facts, of Beedle *against* Bennett and overruled at the last term of this Court, and that statement was substantially taken from the finding of Judge Benedict in the case of Andrews *against* Carman.

I.—*The Invention, its Character, the Patent and its Construction.*

These subjects have been so fully considered and determined by judicial construction in all of the numerous cases before referred to, that it is not necessary here to dwell upon the subject other than to say that the proofs here, as in nearly all of the previous cases, clearly show that Colonel N. W. Green conceived of the invention and reduced it to practice in the Fall of 1861, and this has been judicially determined many times.

We respectfully refer the Court, touching all of these points, to the brief filed by appellants in the case of Andrews *v.* Eames, decided at the last term of this Court, and adopt that brief upon these points. A copy of it is appended at the end of this brief.

The following is a summary of the evidence as to the origin of the invention, and Col. Nelson W. Green's right to the patent :

What is the Invention?

(1) The invention consists in driving or forcing by a puncturing process down into the water bearing strata (with or without the aid of a preparatory rod) a tube, open or perforated at or near its lower end, to receive the water, so as by that process and means to form a well, through using the tube so driven as the lining ; and to this lining tube (unless it be a flowing well) attaching a pump by an air tight connection, so that by the operation of the pump and atmospheric pressure combined water is forced directly from the surrounding earth into the well.

Wm. D. Andrews, p. 236, Q. 5; Q. 11, 12; xQ. 21, 22; xQ. 46, 49; xQ. 50; xQ. 53–55; xQ. 56–58; xQ. 59, 60; xQ. 64.

Thos. C. Theaker, p. 251, Q. 1–3; Q. 4–7; Q. 8, 9.

Hovey's Method and Use of the Auger the Equivalent of Green's.

(*a*) There is no dispute but that the defendant, in making his wells, used the tube and driving process; and though he used the earth auger also, in most but not in all cases (G. Hovey, D. Q. 82), as he himself states, it was only when starting —boring only *to* water (G. Hovey, D. Q. 47–54), then laying the auger aside and for the rest of the way driving or forcing a tube or hollow driving rod (G. Hovey, D. Q. 9, xQ. 2) down four or five feet (G. Hovey, D. Q. 81, 93, 148, 160), might drive eight feet (G. Hovey, D. Q. 149, 291, 295, R. D. Q. 39) into the water bearing stratum, then withdrawing this tube, or hollow driving rod, substituting and forcing down in its place (G. Hovey, D. Q. 204) another tube, which is in its turn forced into the water bearing stratum (G. Hovey, D. Q. 96–166, xQ. 1, 12, R. D. Q. 54), and a pump being attached to it by an air tight connection (G. Hovey, xQ. 1, 33), this latter tube then becomes the lining of and constitutes the body of the well, which well is then in every sense and particular not only substantially but absolutely the same in its characteristics and operation as the well described in and covered by the patent at issue.

(*b*) Defendant Hovey's use of an auger to make a hole down to the water is but a convenient preliminary operation in general use previous to the issuing of Hovey's patent, is neither claimed, named or even alluded to in his Letters Patent, which are entitled an "Improvement in the formation of Drive Wells," and is in no way an *essential* element in the making of a Driven Well. When he reaches the water bearing stratum he commences the driving of the tube to which his pump is to be attached; such tube becomes the lining of his well, and the driving of said tube from the point where water is found, leaving and using it in contact with the saturated earth surrounding it and drawing water directly therefrom, constitutes him an infringer of Green's patent as *fully* as if he had driven the tube the entire distance from the surface of the ground, without the preliminary use of an auger.

Several of Hovey's wells were made exactly like the wells of Harris Eames, held to infringe Green's patent, in the case of Eames v. *Andrews, at the last term of this Court.*

Even had defendant first made an open, dug and walled up well, in the usual manner, containing several feet of water, sufficient for practical use, driven a pointed tube, perforated for the admission of water, into the bottom of such well until all the perforations were below its bottom, so that upon operating a pump attached to the upper end of said tube, water would enter the tube directly from the earth surrounding it, instead of from the open body of water in the dug well above, he would have made as perfect a Driven Well and as fully infringed Green's patent as if he had driven a tube from the surface of the ground. And defendent Hovey *did* make a Driven Well precisely in this way in the bottom of an open dug well.

Geo. Hovey, p. 59, Q. 47; Q. 79–82, 84, 85, 87; Q. 92–94, 96, 99; Q. 148, 149; Q. 160, 166; Q. 204; Q. 291, 295; xQ. 1, 2; xQ. 12; xQ. 38; R. D. Q. 39; R. D. Q. 54.

Thos. C. Theaker, page 251, Q. 10, 11; p. 232, Q. 12–15, 16–20; page 253, Q. 21, xQ. 25, 26; p. 235, xQ. 27–30; xQ. 31–33; page 256, xQ. 37, 38; R. D. Q. 39, 40, 41.

Wm. D. Andrews, page 236, Q. 6; Q. 7; Q. 8; Q. 9.

Col. N. W. Green, page 595, R. D. 24; R. D. 25, 26; p. 60, R. C. 1–4; R. D. 8; R. C. 11; R. C. 16; R. C. 17; R C. 27; 2d R. D. 1, 2; 3d R. C. 6, 7; 5th R. D. 1; th R. D. 2, 3; R. C. 1, 2.

The Great Utility and Simplicity and the Extended Use of the Invention.

And he says if the dug well had then caved in he thinks it would not have affected the flow of the water through the pipe (G. Hovey, D. Q. 102, 103).

I.—The importance of the invention must be conceded.

(1) It was made at Cortland, New York, in the latter part of 1861, as is fully established by the proofs in this case ; the invention is so simple, practical and eminently useful, and its capabilities, when once its principles were fairly understood, were so apparent that when before the Board of Examiners-in-Chief of the *U. S. Patent Office*, they pronounced it "*one of the important improvements of the day*." (See Report on Interference Case, Dec. 26, 1867, signed

by Elisha Foote, S. H. Hodges and Samuel C. Fessenden, Examiners-in-Chief.)

The great utility, combined with extreme simplicity, has caused its use to spread from the locality of its origin within the few years since its conception, not only over our entire country (in which it has become the foundation of over one hundred and fifty separate and distinct tributary patents) but into every quarter of the globe; in Great Britain and in France patents were granted upon it as an acknowledged "*American Invention.*"

Geo. Hovey, page 66, Q. 102, 103.
Stephen Brewer, page 894, Q. 14–17; Q. 24, 25; Q. 26–28; Q. 29–36; Q. 37–41; Q. 42–45; Q. 46–48; Q. 49–56; Q. 57–59.

And yet, simple as it was, and founded as it is upon a well known and acknowledged law of nature, until this discovery was made and utilized by Col. Green no record exists in the world's annals of any utilization of the pressure of the atmosphere to force the water directly from saturated earth into a vacuum produced within an air-tight well inserted therein. While abstractly it was known that air permeated the earth, the reason why this simple application of that natural law remained so long undiscovered was that it seems never to have occurred to any one that compact sand and gravel could contain a sufficient quanity of water to enable that pressure to force through and from it any considerable, much less a continuous, inexhaustible supply.

And so unreasonable was Green's theory deemed, that when he first asserted it, it was universally combated, derided and denied; and for years afterwards, not only the general public, but a large majority of inventors and scientists disputed and disbelieved its practicability until compelled by actual demonstration to acknowledge it.

Soon after being patented in *England* it was by the British army introduced into practical use in Abyssinia, and was there, by the army reports to the British Parliament, as it previously had been in

England, accredited as a recent "*American* invention.

We quote from *Harper's Magazine*, August, 1868, page 348, article,

ABYSSINIA.

> "It was a picturesque campaign—this of General Napier in Abyssinia—'in which,' said the *Spectator*, 'a passage of the Alps is a daily incident; in which the organization of the army, though not its courage, has been tested to the utmost; in which they are employing and harmonizing the military systems of two empires and two ages, of the East and the West, of Count von Moltke and of Pyrrhus, laying down railways with the help of camels, carrying the newest devices in scientific gunnery upon elephants, using theodolites to clear the way for bearded old Mussulman sabreurs, *and compelling a lofty African desert to yield water by an American device not yet a twelve month old.*'"

(2) It was an invention, as we have seen, comprising the discovery that intervening earth neither excludes, suspends, or limits the pressure of the atmosphere upon the surface of the water which fills the interstices of the earth below and with which it is saturated, but, that it acts thereon just as forcibly as it does upon the surface of open water in a lake, pond, reservoir or open well.

An ordinary, open, dug well, fills to the level of the water in the earth surrounding it, by percolation, under the action of gravity alone; and the free water within it being supplied to the pump by atmospheric pressure, is soon exhausted, and when so exhausted the pump becomes inoperative until the well is again supplied with water by the slow action of gravitation.

While by and through the Driven Well, which is in actual contact with the saturated earth, the pump is "by atmospheric pressure," supplied with water directly from the earth itself, which thus places at command of the pump all the water contained in the surrounding earth, that lies above the level of the uppermost openings into the well, without limit as to distance, just so far as the earth continues to be pervious to water ; such direct connection with, and command of the water in the earth, frequently extending uninterruptedly for miles in all directions, as on Long Island, New Jersey, along the Eastern Sea Coast for many miles inland, in river valleys and on plains generally.

NOTE.—These observations are not founded upon mere theories but are substantiated by from two to four years practical use of six hundred two-inch tubes, supplying the City of Brooklyn, each 24 hours during that time, from 15 to 27 million gallons of water daily without cessation or diminution of supply.

(3) This process of well-making also enables us, cheaply and successfully, to penetrate through and exclude the upper and less pure strata, thereby opening to use the lower lying fountains of cooler and purer filtered water, hitherto unattainable through any ordinary, practical method of well-making ; the water in the lowest stratum thus reached, always rising to fill the tube up to the level of the highest stratum of water in the earth where it is driven.

Summary of Results.

(4) This, then, being the grand result of the invention, on the score of its scope and utility, that it enables us easily and with trifling expense, to construct an enduring, inexhaustible, and practically indestructible well, that reaches and appropriates the purest and best of water, treasured up in the depths of earth for our use, freed from all surface contaminations, filtered and purified by nature's own medium in its passage through the earth to the well, with no more labor at the pump in raising it

than is required to obtain that less palatable and less pure, from often-failing and unreliable upper strata.

Who was the Inventor?

II.—The main question in the case is: Is or is not Nelson W. Green the first inventor of the "*American Driven Well?*"

This question has been answered in the affirmative after thorough and exhaustive investigations (1) by the U. S. Patent Office, (2) by Judge Fisher in reviewing the decision of the Commissioner of Patents, and by the various judicial decisions given at opening of this brief, and yet this Court is here called upon by these defendants again to render a decision mainly upon a presentation by the same witnesses of the same facts heretofore passed upon this very court, as well as by the numerous other courts of concurrent jurisdiction.

Fallacy of Mudge's Claim, and Recognition of the Invention as Green's.

We confidently rely upon these numerous decisions as governing the action of this court, except so far as new matters and new evidence may be here introduced. We nevertheless shall cite the testimony taken in support of the claims passed upon and sustained by these decisions, trusting, however, that we shall not be expected to enlarge upon or argue concerning matters which have already been so frequently decided.

III.—And further we premise:

(1) Not only did Green's rival claimants who sought to pirate the invention from him reside in his own village (Cortland, N. Y.) at the time of his invention, but their patents were all obtained considerably *subsequent* to the date of his invention (1861), and prior to his own application for a patent,

which (for reasons to appear) was for some time prevented ; Suggett's having been obtained in 1864 ; Mudge's and Hunter's in 1865.

(2) At the very time of the invention Mudge was in Green's counsels ; having, under Green's directions, actually made his (Green's) experiments, being present to witness their success ; and the facts show unquestionably that Mudge, a mechanic, not an *inventor*, derived all his ideas relating to the invention from Green, as Suggett in turn derived his from Mudge. Mudge at first objecting to Green's plans and even ridiculing his proposed method, while at the time fully accrediting it as his (Green's) invention, and always afterward conceding it to be Green's *suggestion*. It was also at the time talked of by officers and men of the regiment and the townspeople, and accredited as Green's invention.

Defendant's witness Bryon Mudge, page 1849.
Clinton D. Bouton, page 410, xQ. 39.
Col. N. W. Green. page 559, Q. 3.
Mrs. Julia A. Green, page 353, Q. 5.
Dr. J. A. Todd, page 611, Q. 11, 12 ; Q. 22.
Judge A. P. Smith, page 833, Q. 31–33 ; Q. 39 ; Q. 48.
Judge Hiram Crandall, page 682, Q. 21 ; Q. 28, 29 ; Q. 242.
Jos. L. Galt, page 606, Q. 20–23 ; xQ. 17.
Heman F. Robinson, page 334, Q. 21 ; Q. 29 ; Q. 62, 63.
Jas. S. Squires, page 750, Q. 33-35, 37-39.
DeWitt C. McGregor, page 886, Q. 43 to 48.
Stephen D. Freer, page 931, Q. 29-31.

Decision of Judge Fisher on Mudge's Appeal from the Decision of the Commissioner of Patents.

IV.

Then neither Hunter, Suggett or Mudge, being the inventor, who is ? This brings us to the complainants proofs, showing that Green is the inventor.

(1) And here what do we find? An invention without motive or cause? Preceded by neither conviction or thought? Or through Green will it have a consistent and reasonable history? Shall we find it preceded by actual thought, reflection and conviction; an invention developed by adequate occasion, distinctly and openly announced to surrounding friends; attested by experiment, with instrumentalities naturally sought for and obtained; and an invention, when once made, continuing thereafter to have a practical, recognized existence?

Green's Education at West Point, connection with the 76th Regiment and Loyalty.

(2) Again we appeal to the proofs, which show the real inventor to be a man, who, having been partially educated at West Point, was well informed, intensely loyal, energetic, self-confident, original, intuitive—therefore, occasion prompting, one likely to invent.

Jas. S. Squires, page 764, R. D. 205.
Chas. M. Newcomb, page 1022, Q, 23, 24.
Judge A. P. Smith, page 833, Q. 7–17; Q. 61; page 871, xQ. 382, 383.
Wm. O. Barnard, page 298, Q. 4–6; Q. 11; Q. 21, 22.
Gen. Abner Doubleday, page 300, Q. 3–5.
Heman F. Robinson, page 332, Q. 3, 4; Q. 11, 12; Q. 16.
Col. N. W. Green, page 559, Q. 1, 2; Q. 30.
Judge Hiram Crandall, page 684, Q. 8–10; page 358, R. D. 358.
Chas. C. Taylor, page 874, Q. 22–25.
M. M. Waters, page 890, Q. 12–14.

Need of and Occasion Prompting the Invention.

(3) The proofs show also there *was* that occasion prompting in the prevalent apprehension of *well poisoning* and failure of water under siege, such as compelled Mulligan's surrender (Sept., 1861)—perils which intensely occupied the mind of Green, then with his regiment, about to enter the field to encounter them, and naturally incited and aroused

whatever inventive powers he possessed to devise some effectual, ready means of protection against them. The proofs abundantly show that these perils *did* thus occupy Green's mind, and that it *was* to provide against them that his invention was conceived and perfected.

Wm. O. Barnard, page 299, Q. 12.
Dr. J. A. Todd, page 611, Q. 9, 10.
Judge A. P. Smith, page 836, Q. 29.
Judge Hiram Crandall, page 685, Q. 18.
Eustace D. Dibble, page 778, Q. 25.
Chas. C. Taylor, page 873, Q. 7–9.
Col. N. W. Green, page 559, Q. 3.

The Invention was Progressive.

(4) The proofs also show that the invention was progressive with him, from dawning impression to actual conception, then practical demonstration through experiment.

Heman F. Robinson, p. 333, Q. 20.

Green's Perfect Conception before Experiments.

(5) And that, before experiment, he had reached a full conception of the invention, explaining it, with his ideas of atmospheric pressure on subterranean water-strata, to men and officers of his regiment, and to citizens of Cortland, so fully and clearly that, assuming the practicability of his ideas, they could, as they say, then have made successful wells simply by following his description of the process.

Wm. O. Barnard, page 299, Q. 12; Q. 15–19; Q. 23.
Heman F. Robinson, p. 333, Q. 19, 20; Q. 22–25, 27, 28.

Green's Description and Faith in his Invention before Experiments. No one but himself deeming it Practicable.

Col. N. W. Green, page 559, Q. 3; page 564, Q. 30, 31; Q. 39, 40; page 592, R.D. 8.
Mrs. Julia A. Green, page 353, Q. 4.
Jos. S. Galt, page 606, Q. 10–12.

Dr. J. A. Todd, page 611, Q. 7, 8 ; Q. 10; Q. 13 ; Q. 19, 20.
Judge A. P. Smith, page 826, Q. 29 ; page 860, xQ. 272–274.
Judge Hiram Crandall, page 685, Q. 17–19 ; page 701, Q. 118, 119 ; page 707, Q. 170.
Eustace D. Dibble, page 778, Q. 25–28.
Chas. C. Taylor, page 873, Q. 7–10.
Chas. M. Newcomb, page 1019, Q. 4–11 ; Q. 12.
Wm. S. Copeland, page 934, Q. 20.

Novelty and Practicability of the Invention.

(6) And that, though himself thoroughly convinced of the practicability of his process, *all* to whom he communicated it, rejected and declared it wholly impracticable, Mudge among the rest. And all testify that they never before knew or heard of such a well.

Heman F. Robinson, page 334, Q. 21.
Col. N. W. Green, page 559, Q. 3 ; Q. 5, 6 ; page 601, R. C. 30, 31.
Jos. L. Galt, page 606, Q. 12.
Dr. J. A. Todd, page 611, Q. 10–13.
Judge A. P. Smith, page 836, Q. 29, 30 ; Q. 34.
Judge Hiram Crandall, page 687, Q. 30.
Mrs. Julia A. Green, page 357, Q. 29–31.
Chas. C. Taylor, page 873, Q. 15.
Clinton D. Bouton, page 408, Q. 15–17.
John Wheeler, page 878, Q. 10.
D. C. McGregor, page 886, Q. 41, 42.
Chas. M. Newcomb, page 1021, Q. 15–20.
Wm. S. Copeland, page 933, Q. 18, 19.

The Experimental Well at Green's House.

(7) The making of his first experimental well at his house, early in October, proved the feasibility of his invention.

It was made by his personal directions, through his military subordinates, Robinson, Mudge and Carmichael, upon low ground on his own premises, he directing the time and specifying the means to be used in making the experiment, being present and directing; also, there present to witness and recognize its entire success.

Heman F. Robinson, page 335, Q. 28, 30–33; Q. 36–40; Q. 43, 52; page 338, Q. 64, 65.
W. O. Barnard, page 300, Q. 16, 17.
Dr. J. A. Todd, page 612, Q. 14, 15.
Mrs. Julia A. Green, page 354, Q. 7; page 357, Q. 25.
Col. N. W. Green, page 559, Q. 3, 14; page 563, Q. 25; page 569, Q. 59; page 576, Q. 99, 100; xQ. 102; page 581, Q. 111, 112, 114.
Chas. C. Taylor, 873, Q. 11, 12.
Jos. L. Galt, page 606, Q. 13, 14.
Chas. M. Newcomb, page 1022, Q. 21, 22.
Horace Dibble, page 659, 661, Q. 14–39.
Judge A. P. Smith, page 835, Q. 20–23; page 837, Q. 36, 40–42; page 839, Q. 54; page 865, R. D. 330, 331.
Judge Hiram Crandall, page 684, Q. 13–17; page 706, Q. 150; Q. 155, 156.
Jas. S. Squires, page 747, Q. 5; page 777, Q. 8.
Eustace D. Dibble, page 777, Q. 6, 10-18; page 786, xQ. 100, 101, 105, 106, 108, 109; page 789, xQ. 138, 139, 146-148; page 795, xQ. 218, 220.
DeWitt C. McGregor, page 886, Q. 41.
Geo. W. Lason, page 1101, Q. 6-15, Q. 17; page 1106, xQ. 53, 55; xQ. 62, 67 81; xQ. 83.

Nature of Soil, size of Bar, Method of Using it, and size of the Well.

Note.—The nature of the soil was a sandy loam, the bar used for driving, about an inch and a half in diameter, pointed, and the hole was made by raising and dropping the bar, and by a churning process with the hands. The hole being a true cylinder the size of the bar, and after the pump was put in, the earth was tramped tightly about it.

Heman F. Robinson, page 335, Q. 34, 35; Q. 53.
Eustace D. Dibble, page 786, xQ. 102-104, 107.
Col. N. W. Green, pages 559 561, Q. 3-8.

The Fair Ground Well in Camp of Seventy-sixth Regiment.

(8) The second experiment was made within the camp of the Seventy-sixth Regiment, by Col.

Green's direction, Lieut. Mudge superintending, and soldiers of the regiment being detailed by Col. Green's orders to perform the labor; the same rod and the same process being used as at the House Well, and it was, as appears, for the double purpose of *experiment* and for supplying the regiment with water, which the two dug wells within the camp, with such aid as could be derived from several neighboring wells, had failed to do. As an *experiment*, designed to test the wider adaptability of the process, by proving its practicability on higher and dryer ground; for there within the camp, the distance down to water is shown to have been from ten to fourteen feet; in which respect the experiment proved to be as fully successful as upon lower ground; the two experiments fully and satisfactorily demonstrated the general practicability of the process where no rock intervenes; the well upon the Fair ground proving also a most perfect success as a *practical* well; for the proofs show that it at once took the place of the wells previously resorted to for supplying the regiment, and furnished all the water that was required for its use, and was still talked about as, and acknowledged to be, Col. Green's invention.

Heman F. Robinson, page 337, Q. 54, 56–61; page 338, Q. 69.
Clinton D. Bouton, page 407, Q. 10–12.
Dr. J. A. Todd, page 612, Q. 16, 17; Q. 22; page 617, R. D. 4.
Wm. O. Barnard, page 301, xQ. 5–7.
Col. N. W. Green, page 562, Q. 17–24; page 575, Q. 92, 93.
D. C. McGregor, page 886, Q. 36–40.
Jos. L. Galt, page 606, Q. 15–19.
Oscar C. Fox, page 328, Q. 1–7.
Judge A. P. Smith, page 837, Q. 37, 40; page 861, xQ. 291.
Judge Hiram Crandall, page 702, xQ. 126; page 725, R. D. 305–308; R. C. 326.
Chas. C. Taylor, page 874, Q. 17–19.
John Wheeler, page 879, Q. 12, 13; Q. 26–32· page 882, Q. 43–45.

Dr. Judson C. Nelson, page 361, Q. 14; Q. 16; page 366, xQ. 47.
Stephen D. Freer, page 929, Q. 1–17.
Geo. W. Lason, page 1102, Q. 16, 18; Q. 31.

Process and Means Used in Making the Fair Ground Well.

(9) An attempt has been made by defense to show that the Fair Ground well was made by Mudge alone, and that it was a two-pipe well, with an open space between the two pipes down to water, forming a reservoir open to the atmosphere, and the pump drawing its water therefrom instead of directly from the earth in contact with the tube which formed the lining of, and the body of, the well itself. Inferences only have been produced in support of such claim, but the proofs are ample to show that while for the reason that no air tight iron pipe was at hand for the purpose, lead pipe having to be substituted, Mudge deemed it necessary to partially support the earth with a sheet iron pipe a portion of the distance down to water, until he had got the pipe down to place, but that *then*, even so far down as the outer sheet iron pipe extended, the space between the two pipes was filled with earth (compacted by pouring water upon it) to prevent the possibility of the existence of any open reservoir of water between them. Even had the outer pipe extended down to and into the water, which the proofs show that it did not, but that at most it extended down but some 3 to 5 feet from the surface, while to water it was from 8 to 12 feet, and the lead pipe used was 12 to 14 feet long.

D. C. McGregor, page 882, Q. 1–35; page 886, Q. 47, 48.
John Wheeler, page 878, Q. 1, 2; Q. 11; Q. 14–25; page 881, Q. 33–39; page 882, Q. 43–45.
Col. N. W. Green, page 594, R. D. 16–20.
Heman F. Robinson, page 337, Q. 54–56, 58.
Wm. S. Copeland, page 932, Q. 1–17.

Thus both the *novelty* and *practicability*, as also the *general utility* of the invention were conclusively established.

(*a*) Note, as to the experiment first made, Green's careful attention to see that the earth was closely compacted about the tube when inserted, as important with reference to testing his ideas of atmospheric pressure.

(*b*) And as to the second, the attempt on the part of the defense to sever Green's connection with it, through the testimony of Graham.

(*c*) Which, however, was fully answered, and his connection with that experiment fully established; as was also the fact that Green directed it made by Mudge, and detailed soldiers of his regiment to assist him.

(*d*) Note still further, that although *all* were in the start wholly incredulous, as has appeared, yet after these experiments incredulity ceased, and the *Driven Well* became a successful, acknowledged reality.

(10) This leads to the important and more general consideration that, prior to October, 1861, neither in Cortland (as the testimony abundantly shows) nor elsewhere throughout the whole previous history of human invention, had there ever been any such thing as a Driven Well known, a fact which stands accepted upon common intelligence, every witness declaring it to be new to him, and to all with whom he conversed on the subject.

Origin of the Driven Well.

(11) And yet, upon the invention by Green, the Driven Well became, as fully appears, an acknowledged reality; spreading thence abroad to other States and countries, and, as early as 1868, reaching, as we have already said, even the wilds of Abyssinia, where, not only was it accredited as an American invention, but its wide range of utility was still further attested by its compelling a lofty African desert to yield water for the sustenance of

the then invading English army, rendering the progress of that army a possibility and a success.

(12) If, then, to be the first to conceive and to suggest, first to mature and accurately describe, and first also to attest, by actual demonstration, a process for obtaining a practical, widely beneficial and better result by means cheaper than ever before known, constitute an *original inventor*, then, from the citations to proofs, which we have now made, we feel at liberty most confidently to affirm that Nelson W. Green *is entitled to be, and will be*, recognized as the inventor of

"THE AMERICAN DRIVEN WELL."

(13) Indeed, so amply and conclusively is he shown to be that we hazard nothing. We think, in the further assertion, that, could Green, in the Fall of 1861, at once have asserted his rights as such inventor by application for a patent therefor (as but for ample reasons hereafter appearing, he might, and certainly would have done), his right thereto would never have been questioned either by the men who have pirated from him or those otherwise interested against him, and the occasion for this action would never have arisen.

The defendant denies the *novelty* of the invention. He says that the Driven Well is not of *modern discovery* at all, but an old, familiar process of device, known and in use, and described in books long prior to 1861; so that it was wholly impossible for Green, by virtue of any discovery or invention of the Driven Wells he *then* may have made, to appropriate it to himself, through obtaining Letters Patent therefor, as an invention of his own, as, however newly discovered by *him*, it was not *then* patentable.

[A] Note, that from the simplicity of the process, also of the instrumentalities necessary to effect it, and from its supplying the best of water at a vastly diminished expense from other methods of well making, when once the *idea* of the Driven Well was actually, practically reached, not only could it never have been lost, but, substituting other methods wells by that process must at once have rapidly increased; so *did* they, as we have seen, when it *was* reached, under the invention by Green in 1861.

Equally so must they have increased earlier, had the invention been earlier made. Indeed, it is altogether too easy, too convenient, too handy and cheap, as well as too *valuable* a well-making process (whenever discovered), not to have perpetuated itself and come into *general* use. Therefore, if there be *any* truth whatever in this defense it must be easily susceptible of *perfect proof* in the greatest abundance. For if, years before Green's invention, as has been claimed, there ever was *one* Driven Well, *thousands* must then have existed, and it must be easy to prove their existence to any desirable number or extent; and the absence of proof of such *general* use, must, we submit, be *conclusive* against *any* previous use or knowledge.

[B] But, though there have been employed sufficient industry and ability on the part of the defense —though books, encyclopedias, magazines—all the receptacles of knowledge have been ransacked in search of some possible pre-existing description that might be identified with the process of the Driven Well; though the country has been explored and rummaged in all quarters to find, if possible, *somewhere* a pre-existing well made, or which *witnesses could be got to testify was made* by that process; though in this search proofs have been taken as to everything having the slightest *apparent resemblance* to that process, however, *in fact, totally dissimilar* in all material points; and, though actually exhausting months in the taking of testimony upon this branch of the defense, what, after all, is the result?

Any pre-existing description in any book of the Driven Well process of well-making? A single pre-existing Driven Well anywhere actually proved?

And here the rule is, that *the pre-existing description, to render invention unpatentable for want of novelty, must be so full and clear as to enable the reader versed in the art, to make the thing described, solely from reading, and following the description itself, without the exercise of any inventive faculty.*

Let us then consider:

[C] *As to pre existing descriptions in books;* those relied on are from four sources; one, *McKenzie's 5,000 Receipts*, the American edition, published in 1820; another, *Rees' Encyclopedia*, an old, well known English work, republished in this country about 1817; the other, the *Transactions of the N. Y. State Agricultural Society for 1859.*

I.—The description contained in *McKenzie's 5,000 Receipts* (page 388) may at once dismiss as failing entirely to supply the requisite fullness and clearness of detail as to *any* process of well-making whatever; certainly so as to that of the Driven Well.

(1) This is manifest from the description itself. (See D. Ev. "*To raise water in all situations.*")

II.—To the descriptions given in *Rees' Encyclopedia* the same answer applies with equal force and propriety.

(1) Of the "*Borer on Rural Economy, an implement invented for the purpose of searching and exploring the nature of soils,*" and

(2) Of the "*Spring Draining Pump, an instrument devised for the purpose of detecting and ascertaining the situation and direction of underground springs, and in some measure the nature and position of the different sub.strata in land.*"

That it does so apply is fully shown by the descriptions of these implements and their uses; in what they are designed to accomplish, and in their manner of operating, neither is, either in its *purpose* or *process of acting*, at all like the *Driven Well*, as a perusal of the descriptions themselves, will amply verify; showing also as it will the entire propriety and correctness of those conclusions.

III.—The description of the "*manner of drilling* and *tubing a salt well* (*at Syracuse Salt Works*), from the '*Transactions* of the *N. Y. State Agricultural Society*, *1859*.'"

(1) And here let us pause to consider what are the now well known processes of well making. They are three only; two are old—*digging or sinking and boring or drilling*, to which is now to be added the modern driven tube process.

(*a*) What that driving process is, we have already seen; it makes its way into a water bearing stratum of the earth, by displacing laterally the earth occupying the opening made, and compacting it about the instrument making the opening, thus utilizing Green's discovery that the water may be forced by atmospheric pressure directly from the earth into a well without the intervention of an open reservoir. Both the others, while differing from each other in process of making and in the mechanical instrumentalities used, agree in *this*, that they *equally* differ from the driven process in that they *both* remove the earth occupying the opening made down into the water bearing stratum upward to the surface, and obtain a supply of water from the surrounding earth by the action of gravity only.

(2) The old digging process we are familiar with; we know by what instruments the opening is made, and how the well is usually lined—by planking, or a wall of stone or brick.

(3) The boring or drilling—the so called Artesian, process is less familiar, yet, well known ; it uses in making the opening, and also for lining the well when finished, a tube, with drills of different forms, worked within it for comminuting the earth, and a sand pump for raising it when so comminuted and intermixed with water (either from above or below), thence upward through the tube, to the surface, to form that opening ; water being necessarily used to aid that action of the sand pump.

(*a*) An earth auger is sometimes used where rock is not encountered, as a combined substitute for both drill and sand pump. Either that, or the drill and sand pump, or its equivalent, are the implements *necessary* to this process, and wherever the drills are used the sand pump *must* be, as the one is the necessary mechanical counterpart of the other in the process.

(*b*) This, the drilling or boring—the old Artesian process is a well known specific method of well making—through the use of drills, etc., for the purposes stated, as in digging another ; both entirely different, mechanically and otherwise, from the process used in making the Driven Well.

(*c*) But the most radical difference between the Dug and the Artesian wells on the one hand, and the Driven well upon the other, is the fact that the Dug and the Artesian wells in common with each other are dependent for their supply solely upon the force of gravitation, while the Driven Well, by utilizing the pressure of the atmosphere, compels the entire body of water with which the earth surrounding it is saturated to become directly, absolutely and continuously tributary to its supply so long as any water remains.

Returning, then, to this description of "*The Manner of Drilling and Tubing a Salt Well,*" furnished from the published "*Transactions of the N. Y. State Agricultural Society for 1859.*"

(4) We answer that the extract itself which contains that description is one simply of the ordinary Artesian drilling process both of making and operating a well, somewhat modified to accommodate itself to the exceptional soil, peculiar to the limited locality where these salt wells are constructed. The modifications do not change its essential mechanical character—it is still but the same old Artesian process, employing all its usual well-known instrumentalities; with its tube, and that so constructed as not only to cut its way down, but also to receive and to *concentrate* and *compact* within its bore the earth displaced in its descent; with also its drills or chisels (having steam power to work them), to disintegrate or comminute that earth, and sand-pumps to raise it upward through the bore to the surface, and is operated "to procure water from the earth" by a pump attached to a separate tube inserted within it and extending down into the water, leaving an open space between the two tubes for the free passage of air to the surface of the water in the well between the outer and inner tubes.

(5) Therefore we say the description was intended to, and does apply to an entirely different process for making a well, and an entire different process for operating it to procure water from the earth, and bears no resemblance to the invention in question.

In proof of which, we have only to refer to the description itself, as fully establishing the views upon which we rest our answer to this the third *claimed pre-existing descriptions from books* which the defense obliges us to notice.

IV.—Again the same reasoning applies to the description given in Livingston's missionary travels and research in South Africa of the methods by which the Bakalahari women draw water from holes in the ground, by inserting a bunch of grass attached to a hollow reed, covering the grass with sand, thus forming a reservoir from which they draw water through the reed, by the mouth. This is not such a description as would enable the reader to make a Driven Well or any other well solely by reading and following it. It is at most but a vague suggestion and has no more relation to a Driven Well than the Marquis of Worcester's suggestions concerning the possibilities of steam have to a modern steam engine.

[D] Descending, thereafter, from *literature* to *land*, we next inquire how far successful the defense has been in showing the existence, *anywhere*, of an actual Driven Well, prior to Green's invention in 1861? And here it would seem, as we seriously and most respectfully submit, that certain witnesses had taken the job of *swearing* such wells into existence before their time. Certainly, if not that, *mistakes* of the most extraordinary character have been made. In some instances *mere mistakes* undoubtedly; in others, we are forced to believe something worse. Whatever they are, the one or the other, we proceed to consider each by itself.

We pass, then, to the consideration of the mere earth punctures (three in number), shown by the defense to have been made in 1848 in Naperville, Illinois, by one Englefried, which are claimed as Driven Wells, and designated as

I.—*The Naperville Wells.*

(1) What is a well? Is it simply an unlined puncture or excavation into the earth down to water? A mere hole in the ground? By no means. As mechanically defined by Webster it is a pit or hole, "sunk into the earth to such a depth" as to reach a supply of water, "generally of a cylindrical form," and walled with stone or bricks "to prevent the earth from caving in."

(2) In respect to these earth punctures, should we admit them to have been precisely as shown (and the complainants have not thought it necessary to spend time in refuting that showing), still they certainly are not pre-existing *wells*.

Much more extended evidence, by several witnesses (including Hunt, the only witness called by defendants in this case), was offered in the case of Andrews *et al.* v. Carman, but there as here, complainants called no witnesses in regard to them, and the Court held them to contain no characteristic features of Green's method.

II.

INFRINGEMENT.

The answer in general terms denies infringement. As the Court below does not refer to the question of infringement, and as the brief before referred to of counsel for appellee makes no claim of non-infringement, we might assume that infringement was conceded ; but an examination of the depositions of the defendant himself shows infringement clearly. Reference is made to page 65. Witness says that he put down a well for Mr. Snow in the bottom of an open well. That the water was about two feet deep in the bottom when he commenced putting in a well; that the bottom was sand and gravel, and that he projected his point and screen about four or five feet under the water.

85 Q. Did you dig in the bottom of the well ?

A. We used what we call a driving point.

87 Q. How did you project it (the point) into the bottom of the well to the depth you say ?

A. We drove it in with what we called a drive-point ; I do not know that we drove it all the way, but worked it in.

88 Q. What were the reasons for driving this point into the bottom of the well, and putting on a point and screen?

A. He wanted me to (I mean by he) Snow; his reasons were that walls were rather poor, and that it might cave in, it would not hold the water and further reason, he said as the water rose and fell, the sand worked in, that was the trouble.

90 Q. Was the well in the habit of getting too low for water before you fixed it?

A. I do not know.

91 Q. Did it work well after you fixed it?

A. Yes, sir.

92 Q. Describe the use of the rod or instrument you first drove into the bottom of the well.

A. It was a hollow tube; the perforations would extend up about three feet, about an eighth of an inch in diameter, and there was four rows of holes and a point with a bulge; it was substantially the same as Figure I. in the patent issued to Elias S. Hovey.

93 Q. How far did you project that in the bottom of the well below the surface of the earth in the bottom of the well?

A. About four feet.

94 Q. Then the whole length of the projection into the bottom of the well, from the surface of the earth in the bottom of the well, was about four feet?

A. Yes, sir.

95 Q. Well after driving this or forcing it that far what would you do then?

A. Put on the sand pump and pump out the fine particles.

96 Q. Then what next did you do after pumping the fine particles out?

A. Take out the pump and pull out this tube, and put in a tube of the same size with a point and screen over the perforations.

97 Q. Would this be of the same depth as the other tube?

A. Nearly, not quite.

98 Q. How far up from the point would the perforations extend on the last pipe put in?

A. From a foot and one half to two feet.

99 Q. Then the upper perforations on the last pipe put in would be about three feet below the surface of the earth in the bottom of the well?

A. Generally about two feet I should judge.

100 Q. What is your object in getting your point and screen that low from the surface in the bottom of the well?

A. To always have plenty of water.

101 Q. Did you always have plenty of water under such circumstances?

A. Never heard any complaint, but that they had plenty.

102 Q. Then after a well has been constructed in this way there is no danger from wells caving in, or the sands drifting in?

A. Well, if the wells cave in or the sands drift in, I do not think it hurts it.

103 Q. You think if the wells did cave in, under such circumstances, it would not effect the flow of water through the pipe?

A. No, I do not think it would.

104 Q. What is the first name of this man Snow, that you put down the well for?

A. I do not know.

105 Q. Was it put down since the date of this patent for which you are acting in this State?

A. Yes, sir.

106 Q. Was that pipe air tight, from the perforations to the pump above, and was it attached by an air tight connection to the pump?

A. Yes, sir.

108 Q. For what other persons have you put those tubes in the bottom of the wells, that had been previously dug?

A. A man by the name of Lewis in Hazleton township.

109 Q. What was the matter with his well, that caused him to have that done, do you know?

A. Because he could not dig it any deeper, and he had not plenty of water.

110 Q. Why could he not dig it any deeper?

A. On account of the quicksand.

147 Q. Now, sir, will you swear that every well you have constructed in Independence, you bored down into the water?

A. If it is not an open or dry well, I will.

148 Q. How far would you drive your point into the water bearing stratum after coming to the water?

A. We always bore in as far as we can and then drive maybe 4 or 5 feet.

149 Q. Have you not driven as much as 8 feet from where you quit boring?

A. I might; cannot remember; we do not try generally to get that depth.

150 Q. What makes you do any driving at all?

A. Because we want to get a little deeper.

151 Q. Why do you not bore all the way down?

A. We do in a great many instances.

152 Q. Why do not you bore all the way down always?

A. Because we take a notion to drive.

153 Q. That is your only reason?

A. I do not know of any other reason.

157 Q. How far into the water bearing stratum do you drive what you call a drive point after you get through boring?

A. Sometimes not any—sometimes a foot or two.

158 Q. How far do you force or chuck it down into the water bearing stratum after you get through boring?

A. Sometimes I drive it a little after I have gone as far as I bored it; I never chuck it down.

159 Q. Do you ever force it?

A. I have sometimes, but not above the water bearing stratum.

160. How far did you force it below the water bearing stratum?

A. From 3 to 5 feet.

164 Q. How far does the water bearing stratum lay below the surface of the ground in these places usually?

A. Near my place it lays about 19 feet from the surface.

165 Q. How long have you made the pipes for most of the wells in this town?

A. Do not remember.

166 Q. After withdrawing this tube to which is attached the drive point referred to by you, you insert in lieu thereto a point with a screen attached as appears in figure "2" in the patent issue of Elias S. Hovey, No. 123,903, did you not?

A. Yes.

167 Q. And you then in all cases attached this tube to a pump by an air tight connection above it, did you not?

A. Yes.

193 Q. What is your object in having a sharp point at the end of this tube?

A. To drive it easier or it would go easier.

194 Q. Would it not answer your purpose just as well to have the ends square or closed up.

A. No.

195 Q. Why not?

A. It would not be according to my patent.

And referring to the point described in E. S. Hovey's patent under which the witness George Hovey claims to operate, he was asked:

197 Q. What is the sharp point Figure 1 referred to in the patent used by your mode, of wood, iron, or steel?

A. I suppose iron.

198 Q. Why is that point made of iron and the other of wood?

A. The first one, No. 1, we sometimes drive; the other, No. 2, we do not drive generally; it is not made to drive.

It also appears from the testimony of Hovey that he has put down a great many under the process described in the Hovey patent; that patent does not appear to be printed in the record although the patent is referred to frequently in the depositions; copies of the same will be furnished the court for examination; the witness Hovey after that, has stated that he has made as many as 100 wells in a certain way as asked.

R.D.Q. 54, page 95. After constructing wells in this way would you attach the pipe to the pump and pump water from the well?

A. after pulling out the tube we have driven we insert a gauze covered screen point, which is shown in figure "2" in the patent issue of E. S. Hovey. To this last pipe we attach a pump and pump water.

There can be no question as to *infringement*.

The Alleged Prior Wells.

During the very extended litigation we have conducted, in enforcing this patent, we have come across two classes of alleged wells set up by the defendants. The first class is an alleged construction that never was a driven well, but was constructed either as an artesian well or as the ordinary dug or excavated well. The second class of alleged wells were Driven Wells, but were misplaced as to their date of construction. Occasionally there was a third class of alleged wells, the descriptions of which were so vague and uncertain that it is impossible to determine what kind of wells they were, or how they were made. The Tallman or Preble well was a well of this third class; the Purdy or Milwaukee well was a well of the first class, that is, it was not a driven well at all, but was made at the date stated. The Independence and the Warsaw wells were wells of the second class; that is, they were driven wells, but were misplaced or uncertain as to date, and were clearly not proven to have been prior to Green's invention in the Fall of 1861. The Naperville alleged wells belong to the first class;

that is, were not driven wells at all within the scope of the Green patent. Each of them was simply *a hole made in the ground*, by driving in and withdrawing a rod, from which hole the water flowed out above the surface of the ground, and no pump was attached or lining inserted. The only witness examined on this subject is the witness Hunt (page 1,599); they were flowing holes or springs and not wells in any sense. Two peculiarities have always been found to belong to the second class, that is, those misplaced as to date ; peculiarities which of necessity cast doubt upon the alleged date and doubt upon the circumstances of their alleged construction.

In the first place, the man who makes them, without any previous experience in construction, appears to know how to make them at his first attempt, precisely as they would now be made by an experienced workman of many years practice.

Second, being misplaced as to time, no immediate crop of wells has ever followed them ; whereas, in every community where the first Driven Well *was* made, immediately all the neighbors provided themselves with similar wells; but it always takes years before any other wells are shown or claimed to follow the misplaced ones, simply because of the fact that they are misplaced and no such well existed until years afterward. Bearing these peculiar characteristics of the class of misplaced wells in mind, let us briefly consider the testimony adduced concerning all of these wells except the Purdy well, which we have disposed of, as belonging to the first class of wells that were manifestly *not* Driven Wells.

Of course, the Court will bear in mind that the burden of proof lies upon the defendants to maintain beyond any reasonable doubt, date of every well alleged to anticipate Colonel Green's invention. Of course, the complainants' witnesses, in regard to the existence or non-existence, or date of these alleged prior wells, are in the position of having to prove a negative ; all they need to do is to introduce evidence of sufficient weight to raise a reasonable doubt of the certainty of the statements made by the witnesses for the defendants. If they can go beyond the raising of a reasonable doubt, and distinctly show a direct and positive contradiction of the material statements of the defendant's witnesses touching these points, then *of course*, the defense fails. If, too, the defense claim to show that a well was made at a certain date and that no other wells were made until 5 or 6 years after that date (as is the case in the Independence well) the defendants themselves thereby raise very strong doubt as to the correctness of the date of the first well, which failed to bear fruit in a large and early succession of other similar wells, for it happens invariably, that where one of these Driven Wells has been introduced for the first time in a community, that its cheapness and manifest value are so great, that forthwith the whole country becomes filled with such wells.

III.

THE MILWAUKEE OR PURDY WELL.

The Milwaukee well, concerning which the witness E. W. Purdy is the only witness, is the sole anticipation upon which the Court below rests its finding of prior use. For it concedes that the Independence well should be regarded as in the category of abandoned experiments. With regard to this well, Judge Shiras in his opinion, in the Court below, describes that well so as at once to put it out of the category of Driven Wells, and shows clearly that it was a mere Artesian well of the well known kind. He says that E. W. Purdy in 1849 and 1850, was in the business of making wells at Milwaukee and he thus describes the method then and there used by Purdy : "He used iron rods about two inches in diameter and made so they could be coupled together. The first rod was 16 feet long; the lower end in the shape of a drill. This rod was worked up and down by a rope running over a gin pole, the rod being raised up and down, and in that way the earth, he says, was displaced by the rod as it went down. Tubing four inches in diameter was driven down. This tube formed the lining of the well. No earth was removed upward except in case of striking quicksand, when a long sheet iron bucket with a valve in the bottom was used to bring up the quicksand. When the tube had been forced down into the water, if the water did not come to the surface a pump was used; the tube to which the pump was attached being placed inside the tube first forced down, the latter forming the lining of the well."

It is perfectly manifest from this description given by the Court that the well described is the ordinary open well, Artesian in its character, the lining of the well being formed by a tube four inches in diameter and the pump itself being attached to a smaller tube placed inside the tube which formed the lining of the well. It is expressly stated that the one large tube formed the lining of the well while another tube within it, with a pump attached, was the instrument by which the water was drawn from the earth. The well thus formed was the ordinary well, known for ages, except that it was small in diameter; the principle on which it was operated was the common principle of the long used ordinary pump in open wells.

The principle of the Driven Well, upon which its great value rests and which has caused its wide and almost universal use, is here entirely absent. There is no packing of the earth about the pump tube, and no possibility of putting in operation the principle which constitutes the efficiency and value of the Driven Well as known since the invention of Col. Green; every Artesian well which is not a flowing well has been prepared and operated upon the same principle as the Purdy well and made substantially in the same manner. That this was the true mode of construction employed by Purdy, is still more manifest from his testimony as actually given in detail, than from the condensed abstracts from it given by the judge. Purdy states in his deposition, page 1,788, that the end of the drill was in bit form, about four inches across the face of the rod which was two inches in diameter. And on cross-examination, at page 1,790 says as follows:

7xQ. What kind of wells were those you made; that is to say, what were they called?

A. They were called Artesian wells at that time.

8xQ How many of these wells had pumps connected with them?

A. All, with a very few exceptions.

9xQ. Please describe the pumps that were used particularly?

A. The common iron pump, lead pipe attached.

10xQ. Where did this lead pipe lead to?

A. It passed into the tubing of the well to the water below.

11xQ. In any of these wells that you have made in Milwaukee as you have described, was the pump attached to the 4-inch pipe tube that you forced into the ground, and the well thus formed?

A. It was not directly.

12xQ. Then, in all cases where a pump was used, there was a separate pipe other than the tube you force into the ground, which you say was 4 inches in diameter, attached to the pump, and extending down into this 4-inch tube, to the water below?

A. Yes.

14xQ. Now do I understand you to state, that in your opinion the well made by driving or forcing a hollow tube into the ground and attaching a pump with an airtight connection to the top of this tube, would be the same kind of a well as the wells you made in Milwaukee in which you placed the pump?

A. *They are not the same.*

15xQ. In what respect do they differ?

A. The pump in the Milwaukee well was not attached airtight to the tubing of the well.

Thus it appears that Purdy himself, the sole witness as to this Milwaukee well, declares that it was an Artesian and not a Driven Well. The well long known and in common use and not the well which originated, as we claim, from the invention of Col. Green. He declares in express terms that it was not so. Because he says explicitly that it was not such a well as he has since seen operated under the Driven Well principle, with the earth packed tightly around the pump tube so that it shall be kept airtight, from the water to the outlet at the mouth of the pump. He points out the difference, which is that the well he constructed in Milwaukee was a well four inches in diameter, which had no pump connected airtight with the top of the well tube, but contained within it a pump tube extending into the free open water within the well tube to which pump tube the pump was attached ; in fact his description is precisely such as might be given by any ancient well digger, except that he declares that he formed the well with a drill 4 inches across and lined it with metal, instead of digging it with a spade and lining it with brick or stone. And that afterward he put the ordinary pump with a lead pipe in to his metal well, and attached a pump to that lead pipe, just as he might put a wooden or leaden one into his brick or stone well.

His process of procuring water from the well is entirely different from that of Green, and does not utilize his discovery.

His method of making the well with chisels, drills and sand pump, is radically different from Green's method of inserting his combined well and pump tube into the earth by a mere puncture.

Purdy's statement that he even displaced or shoved to one side any portion of the earth with the chisel he describes is simply impossible.

It is difficult to understand how Judge Shiras should conceive this to be an anticipation of the

Driven Well, unless he ignored entirely the essential principles on which the value of the Driven Well, and the validity of Green's patent for it, have been finally adjudged to rest, by the recent opinion of this Court.

III.—*The Independence Well.*

A very large part of the evidence in this case relates to the so-called "Independence Well." We will first make a brief summary of the salient points relating to this well and then give an elaborate abstract of the evidence relating to it. This well belongs to the second class mentioned—namely, wells that *were* Driven Wells in principle but misplaced as to date, and there are certain indicia always attending this class: first, none of the witnesses as a rule, who attempt to place them as of the claimed date, can ever tell who constructed them, nor generally where the constructor came from, or where he went. If they knew (and generally they do not) they dare not tell, for that would enable us to disprove the date by hunting up the man who was alleged to have constructed it.

Second, it nearly always happens that such alleged wells have been constructed as *exhibition wells*, by some one having a patent, or a right under a patent—sometimes under the Suggett patent, which was the first patent granted relating to driven wells (in March, 1864); and at other times under some patent for an improved "point" to be used in the construction of the well. In such cases the exhibitor's object is to attract attention to his well; and he does it so as to dispose of the right under his patent; and such wells are generally constructed in some public place—in front of a hotel, or near some thoroughfare; and this matter of *operating under a patent right*, generally appears with more or less distinctness and clearly shows that *the date was misplaced.*

Third, they are generally found to have all the modern improvements—they seem to have been invented and perfected instantly.

Fourth, being misplaced as to time, no immediate fruitage of a crop of other like wells has followed them. Unlike the real Driven Well, which when once brought to the public attention rapidly spreads, these alleged misplaced wells never have any successors until after the lapse of a number of years. Thus they may be said to have no parentage and no posterity.

This alleged Independence well is claimed to have been constructed at different dates, varying from the Spring of 1860 to April, 1861, June, 1861, and to 1862, while defendant's witness, Allen, says it may have been 1863, at Independence, Iowa. A large number of witnesses have been examined concerning this well in this case. All of the principal witnesses were also examined in the case of Andrews *v.* Cross, decided by Judge Blatchford, who said concerning them in his opinion "as to the driven well alleged "to have been put down at Independence in April "or May, 1861, it is quite clear that the witnesses "who testified to that date are mistaken, and that "the well in question was put down in May, 1866, "and the evidence to that effect is very complete, "detailed and minute." So also the testimony of the twenty-three principal witnesses in this case concerning this well was stipulated into in the case of Green *v.* French, but the defendants did not even print these depositions and no reference whatever was made to them in the case of Green *v.* French. The said depositions introduced in the evidence in the cases of Green *v.* French and Andrews *v.* Cross were copies of the evidence introduced in this case, with the exception only, that a larger number of witnesses, purely cumulative in character, are to be found in the case at bar.

One of the principal witnesses called by the defendants to prove the Independence well was THOMAS SHERWOOD, who says that it was in the Spring of 1861, latter part of April or fore part of May; on the west side of the river. He cannot state how long it remained there, but his recollection was, till towards fall, and he fixes this date from the immaterial and non-related fact that he was then keeping White's Hotel in company with C. T. Kimball, and never was in business with Kimball before or since then; and he further says that a gentleman stopped at the house, and exhibited iron tubes that he had in the cellar. *He did not see the well constructed.* It is manifestly impossible for any witness to know whether or not a well was constructed according to Green's invention unless he had, himself, seen the actual construction of the well. On cross-examination he fails to connect the well with the apparatus he saw; and it clearly appears that he knows little or nothing of his own knowledge. He further says that he cannot state accurately at what time the "stranger" with the tubes came to the hotel; nor how long he remained; nor his name; nor whence he came; nor whither he went. That the well was a great curiosity, and created great excitement; that there were lots of driven wells there a few *years afterwards;* and he admits that Kimball boarded with him at that very hotel after his partnership was dissolved, and that they were on friendly terms; and that he does not recollect of ever seeing the stranger at the well.

THOMAS J. MARINUS for defendant says, that the well was put down on the west side of the river where the Presbyterian church now stands about the commencement of the rebellion. It was there in June, 1861. *Did not see the tube before it was driven.* If that be true, of course he could not have seen it in the act of driving, or have personally known how the well was made. He does not know who owned the well of 1861, but "it was said to belong to a traveling man." The reasons by which he fixes the date are of the flimsiest character.

H. A. KING, for defendant, testifies to seeing a well in the Spring of 1861; *he did not see the well constructed;* does not know how long it remained there—a few weeks perhaps. He pretends to fix the date in a remarkable manner, and says he "came here in November, 1860, and this was the next Spring; I was in the livery business at the time, and went out in July, 1861, and that was previous to my going out of the livery business." A farcical way, this, of fixing a date 20 years before the time of his testimony. He does not think that that kind of a well was in use directly afterward—does not remember of seeing any until 2 or 3 years. *He cannot tell who made the well of 1861;* thinks what others have said about this well, as to the time and construction, may have had something to do with forming his recollection. Cannot tell when he saw a steam engine, a reaper, nor a thrashing machine.

THOMAS H. TYSON, for defendant, gave the date as in April or May, 1861. Cannot tell how long it remained there; says 2 or 3 months, more or less; does not know who put the well down; thinks they represented themselves as coming from New York. There were 2 of them—strangers; they were not there over a week or 10 days; being asked who was present during the time this well was being constructed, that you can now name, he answers, "there was but one person that I can name; that was JOHN FARGO; he now lives close to Buffalo, N. Y., and was engaged in farming the last time I heard of him." This is a very vital fact, because the complainants called JOHN FARGO, and he positively fixed the date as being in the year 1866; and says that that well of 1866 was the *first* Driven Well that he, Fargo, ever saw, and that he was present when it was made.

TYSON, for defendant, also says, that the well was put down as an advertisement, and that the parties who made it offered to make other wells of the same kind; that he does not know where the parties went to, and never heard of them afterwards. He helped to put down this well (which he says, mistakenly, was in 1861), but did it for "the novelty of the thing"; "could not tell when he next heard of a "well of this kind, but thinks it was in 1864 or 1865; " says the Driven Well did not come into general "use in Independence directly after this first one "was put down, but three or four years afterward, "or perhaps longer."

S. P. McEwen, for defendant, thinks the well stood there pretty much through the summer of 1861; excited curiosity, says it was put down in the Spring of *1861.* He makes the important statement in answer to the question, "who put this well down?" "I don't remember the name of the firm;" "One of them was called 'Charlie'; they were Eastern men stopping at the White house." He thinks Kimball was there when the well was put down and took an active part; does not know whether Tyson helped or not; he thinks there was something said about a patent on this well; his best recollection was, that it was called an *experimental well;* it excited curiosity. There were published at that time in Independence several newspapers, the "*Conservative*," "*Bulletin*" and the "*Guardian;*" he says there was a blacksmith's shop nearly opposite on the corner, and that he knew the blacksmith, and his name was Kays. Kays was subsequently an important witness for complainant.

A. J. Francis, one of the defendants' witnesses, says, that he *knew nothing of the construction* of the well.

George Warne gives the date of this well as the Spring of 1860 or 1861, and thinks that Kimball was present when the well was made. Appears from his testimony that he made considerable opposition to the Driven Well patent, and had strong feeling against it.

A. F. Williams, for defendant, says it might have been before or a little after June 1st, 1861; that it was a curiosity, and attracted the attention of the citizens generally; *that it was put down as an "experiment";* does not know who owned or controlled it, nor how long it remained; supposes it was put down "for the purpose of showing the well."

These witnesses, and numerous others of a like nature, locate the well as being on Block 3, Stoughton & McClure's Second Addition to Independence, and on or near the particular spot indicated by the witnesses.

Complainants admit, and clearly prove, that there was a driven well made on or near the identical spot. We claim to have made it entirely clear to the Court, that either the claimed well of 1861 was a figment of the brain, or that it was *misplaced as to date just about 5 years.*

There are many concurring circumstances to point to the latter as the true solution, to wit: that *this well was made in 1866, and not in 1861.* How easy it is to make such a mistake we all know, and have all experienced many times. When we can resolve conflicting testimony by pointing out a manifest mistake, without resorting to an imputation of willful untruth, it is our duty to do so. We all know that oftentimes, unwittingly, we make the wish father to the thought, and that when passions and interests are called into active play, it is very easy to be mistaken, especially as to the date of a remote occurrence; and when we consider the reasons given by the defendants' witnesses for fixing the dates, it will be seen that generally they are utterly disconnected, without having any sequence with or relation to the principal event. For instance. One of the witnesses gives as his reason that he left Independence that Fall and did not return for four years; but nowhere states whether he recollects that the transaction occurred before he went away. Another pretends to base his recollection on the fact that he and a friend left their wives at his house and went out and examined the well; for ought that appears to the contrary, this may just as well have occurred in 1866 as in 1861. And when we take into account the fact that the evidence shows that a very strong feeling, almost amounting to a form of insanity, existed in Independence against this patent, the extensive combinations formed there to defeat it, the strong inducements from interest, and the love of popularity to aid in overthrowing the patent, we may well be prepared for some "straining of conscience and stimulating of dim recollections."

And when in the light of the fact that the first patent taken out on driven wells was the Suggett patent of 1864; when we consider that the *defendant* himself establishes the fact that this pretended well of 1861 was then patented, that the "stranger" was advertising and exhibiting and carrying along with him tubes and other appliances for making wells, trying to sell something, either wells or territorial rights, the improbability ripens into absurdity; when we also consider that although these witnesses all concur in stating that this well was a curiosity that created great excitement, that crowds of people visited it, that it was the town talk and wonder of a small western city, that notwithstanding this, not a vestige of it remained, no trace, not even the name of the producer of the wonderful invention; nor his origin, nor his retreat; no name, no place; even his pipe vanished and left not a trace behind, we are irresistibly impressed with the utter improbability that any such well ever existed at that time—1861. When, too, an enterprising, vigilant city containing several bright and active newspapers, and that in none of these papers was the slightest mention made in 1861 of the subject of the universal town talk—the wonderful Driven Well, we are more than confirmed in the assurance of a mistaken date. Mr. Lake, counsel in this case and solicitor of record, and the leading counsel in taking proofs for the defense, was examined; and he stated that although he had searched, he had been unable to find any mention of the well in the local newspapers in 1861; and we will show further that there was abundant and enthusiastic mention in 1866, of the driven well which had just been introduced into Independence. And then again, how can it be that a well of such manifest utility, so simple and easily constructed, so cheap, so well adapted to the soil of that country should have had no imitators, no purchasers. Every one of the defendant's witnesses admit (except McEwen) that there were no other driven wells at Independence for three or four years. McEwen testified at one time that there was a year before the second well was made, but afterwards admits that he did not think any of these wells were made for two or three years after the one of 1861. Our abstract, beginning a few pages further on in this brief, points out the numerous contradictions among these witnesses. For instance as to the kind of point; the dimensions and shape of the holes of tube; whether the man who made the wells stood upon a box, or remained on the ground; when he made the wells, whether there was a plug in the lower end of the pipe which was pushed out after the piping had been driven; and whether there was a platform around the pipe for the pump to stand on. We will satisfy the Court by a brief attention to some rebuttal evidence, that as Judge Nelson said in the case of Andrews *v.* Wright concerning an alleged prior use.

"It is too shadowy and doubtful."

There is a very large amount of rebuttal evidence, and of very conclusive character, which is positive and exact; nothing left to vague surmise and doubt, or given by memory alone, but backed up by documentary evidence. Names are given and all proofs pertaining to the subject matter. We have proven, too, that the newspapers were enthusiastic in their praise of the new and wonderful invention at the time we say the first well was made in Independence, and it will be seen also that our man who made the well in 1866 sold territorial rights, and that from that time onward to the present time the driven well has been constructed in great numbers in Independence.

1. Our proofs show conclusively that a driven well was put down on Block 3, Stoughton & McClure's Second Addition to Independence, on almost

the precise spot designated by the defendant's witnesses as the place in which the pretended well of 1861 was driven, and that this well was put down on the 25th day of May, 1866, by Charles Brown, John West, M. C. Chamberlain, and Madison Keeney—West doing the principal part of the work; these statements are proven, as will hereinafter appear, by Brown, Hazard, Burr, Kays, Chandler, Fargo, and West.

2. This was the first well put down there, and the newspapers called attention to it as a most interesting and valuable novelty. This is proven by witnesses Harrington, Goen, and Lake. The following witnesses testified that there was never any driven well in Independence to their knowledge or information before, and that they had ample time and opportunity to know if there had been such a well there. So say, Brown, Burr, Kays, Joslin, Chandler, Fargo, and West.

3. It created great excitement and was a great curiosity. This was proven by Harrington, Brown, Hazard, Burr, Kays, Chandler, Fargo, Frank Fargo, and West. Mr. Lake, counsel for the appellees in this case, testifies that he examined all the copies of the papers published at Independence in 1861, that he was able to find, and that among them he examined a number of papers for April, May, June, and July, and one or two in August, 1861, and that he did not discover in any of the numbers of the papers that he was able to find and examine published there in 1861, anything referring to a Driven Well. At pages 326-327, volume 1, of the Record, will be found extracts from the "GUARDIAN" of Independence under date of May 30, 1866, headed: "A GREAT CURIOSITY," in which there is an enthusiastic description of a Driven Well put down according to the Chamberlain patent dated June 30, 1866 (this patent can be found at page 1928, volume 2, of the Record); also an extract from the "GUARDIAN," dated June 6, 1886, in which it is

stated " that this new patent tube is a first-rate affair; it may be a mystery to many how such a continuous supply of clear, cold water can be sucked out of the earth with so little ado." Also another extract from the "GUARDIAN," dated June 13, 1886, which says, "See the advertisement of that " wonderful well which we insert to-day; every- " body speaks well of the well and it is sure to go; " so well are we assured of this that we have al- " ready bargained for one on our premises to show " our faith by our work. Go thou, and do like- " wise. P. S.—We are just informed that the State " of Minnesota has been sold to Chandler and " Turner of Independence for $2,000. This thing is going like hot cakes." Also, an extract from the "BULLETIN," dated June 5th, 1866, which says, "One of these remarkable inventions is exhibited in full operation on the west side of the river."

"This well can be sunk both cheaper and more quickly wherever there is no rock to stop the tubing. Proprietors Messrs. Harrington & Brown." Mr. E. B. Husted, at the Burr House, has the right for this County. "He will furnish all other information and dispose of the agency rights on reasonable terms." Now, this very well of 1866, enthusiastically described as a thing just out and a novelty, in the newspapers of 1866, is the identical well which defendant's witnesses describe as having been made in 1861; it seems to us a perfect waste of time to dwell any further upon this well as an anticipation of Green's invention which was made in the fall of 1861.

FARGO, for complainant, was present when it was made; and the defendant's leading witness, TYSON, said that Fargo was present in 1861 when the well about which he testified was made. This 1866 well was the *first well* that Fargo ever saw. (See Fargo, and Brown). Blacksmith KAYS had his shop on the lot on the opposite side of the street from where the well of 1866 was driven, just as the witness

McEwen says was the location of Kays shop when the claimed well of 1861 was driven; and Kays says that he moved to Independence on the 24th day of October, 1865, and bought the premises on which was an old house which he remodelled into a blacksmith shop; and he produces the deed of the property dated December 12th, 1865, in proof of his statement. (See Kays, Chandler, Hazard, Fargo, West, and Frank Fargo). One of the men who helped drive this 1866 well was named Charles Brown and he went by the name of "Charlie," and it will be remembered that the witness Tyson says that one of the workmen on the well which he claimed to have seen made in 1861 was called "Charlie." This is proven by Harrington, Fargo, and West. Kays was a brother-in-law of George Mann a witness for the defendarts, notwithstanding the great excitement about this well in 1866, never said a word to Kays about the pretended well of 1861. Warne spoke of the 1866 well to Fargo as something *new*, and never having heard of it before. The men who owned this well of 1866 were Eastern men, and defendant's witnesses said that the men who made the 1861 well were Eastern men. (See Brown, Harrington, Fargo and West). The men who made the 1866 well also put up at the Burr House which had been previously known as White's Hotel, the Merchant's and National Hotel; this is the same hotel at which defendant's witnesses say the "strangers" put up who made the alleged well in 1861. (See Harrington, Brown, Burr, Joslin, Chandler and Fargo). The men who made the 1866 well kept their implements and tools in a wooden box in the cellar of the house, just as the strangers did who, according to the defendant's witnesses, made the pretended well of 1861. (See Brown, Burr, and Chandler). The well of 1866 was *patented*, and the parties were selling rights and did sell rights, *and the well went into general use at once*. (See Harrington, Hazard, Brown, Kays, Chandler and Fargo). C. T. Kimball, one of the most important witnesses of the defense was frequently at this hotel in 1866 when the 1866 well was put down; and so also was Thomas Sherwood another principal witness, as to the pretended well of 1861. How easy a thing it was for these witnesses, Kimball and Sherwood to have confused the occurrences which really took place in 1866, with an imaginary occurrence of 1861. (See Burr, and T. J. Burr). We think that these contradictions, these reasonable explanations, as to matters of fact, clearly and fully show that the Independence well was made in 1866 long subsequent to Green's invention in the Fall of 1861, and was not made in the Spring or Summer of 1861 as claimed by the defendant. As matter of law, the burden of proof is on the defense to show that the patentee was not the first inventor, and it is not enough that the defendant raise a doubt in the mind of the Court; he must fully and completely *satisfy* the Court of the fact, and time of the alleged prior use; and every reasonable doubt should be resolved against an infringer setting up that the patentee was not the original and first inventor. This is such familiar law that we need not cite authorities. In support of the comments and statements above made, concerning the Independence well we submit the following:

Abstract of Evidence about the Independence Well at Independence, Iowa.

This well defendants seek to prove was put down in the Spring of 1861, on Block 3, of Stoughton and McClure's Second Addition to Independence.

(1.) A host of witnesses were produced by defendants to testify in *relation* to this well, but three, only, claim to have been present to witness the process of making it, Tyson and Allen, another, Kimball, to have been present at the commencement and for some time after, but left before its completion. Of these, *Tyson* gives no date; *thinks* it was in 1861, but may have been earlier. Allen says he saw men putting down a well there *in 1861 or 2 but is not positive* it was not in 1863. Kimball says it was in April, 1861. McEwen says it was in 1861.

Their testimony is as follows:

Page 1710 to 1717.—THOS. H. TYSON's impression, was it was in 1861, but would not swear positively, but was as early as that (page 1711, Q. 4, 5). Lower end of tube had slots in it and a *wooden plug in the end, which they drove out when the pipe was down.* It was on the northwest corner of Block 3 (1711, Q. 15). There were *no improvements on Block 3 in 1861* (1711, Q. 4). There were two young men who had the construction of the well; one was tall; two were all he saw (1713, xQ. 16, 24). They claimed they had a new process of getting water, by driving a tube into the ground (xQ. 18). Recollection is, they claimed to live in New York, what part he could not say. They stopped at what was called White's Hotel (xQ. 20, 21, 22). There were two of them xQ. 24). Well remained biggest part of the Summer; could not state how long (D.Q. 14). Next well of the kind he saw was in 1868 or 1869 (D.Q. 21). Resided on southwest corner of Block 2 (xQ. 8).

Page 1803.—S. S. ALLEN saw them putting down a well *in 1861 or 2*, on Block 3, or on the street west and joining Block 3 (D.Q. 6). Is not positive it was not in Spring of 1863 (xQ. 30). Was like any other tube, with a plug in the end, holes bored in the side (xQ. 9). There was a vast amount of water (xQ. 11). Supposed the object was to sell wells (xQ. 12). Thinks there was a building on the southeast corner of Block 3 (xQ. 19). Thinks the well remained 2 or 3 months (D.Q. 12). Knew none of the parties, or their names, or where they came from (xQ. 5, 7). Object of making well was to get parties to have wells put down (xQ. 12). Does not remember any other wells put down directly after, nor for a year or two (xQ. 13). Thinks the church on that block was built in 1864 or 5.

Page 1833.—Chas. T. Kimball says in April, 1861 (D.Q. 11), the party who made the well stopped at the hotel kept by Sherwood and himself (the White House, now the Merchants' Hotel); took him down into the basement of the hotel, and opening a wooden box showed him sections of galvanized iron pipe in pieces about three feet long, and sharp points that he screwed on, and then told him they would drive this into the ground and add on sections until they struck water.

The next day or day after he wanted to show me what he could do. "He got sledges or mauls and drove down several feet." "I went back to the hotel before he had completed it." The next day I went over with him again and saw them pump water. The well was made on the northeast corner of what is now the property owned by Stout, the Woodward place, either on that *or in the street* east of that block (D.Q. 11). The data by which he fixes the date is, "it was the last days of my keeping the hotel." Being asked if he ever lived in the hotel at any other time answered, "I boarded there two or three days once with my family, when Burr Bros. kept the hotel; some six or seven years after I kept the house; it is now known as the Merchants' Hotel (D. Q. 18 to 21). The top of the pump was three or four feet above the top of the ground (D. Q. 25).

I think this man came from the State of New York; I have that impression (xQ. 37). Thinks John Fargo, Tyson and Trexler were present when the well was made, and several others (xQ. 39). The point was a round piece of gas pipe, 20 inches or 2 feet long, solid blunt point, with the pipe perforated with holes up about 12 or 15 inches—holes about as large as a telegraph wire, or one-sixteenth of an inch (xQ. 55). To xQ. 57, Was the end of the point open—did it have a wooden plug in it, or was it a solid iron end? He answered, "Solid, blunt iron end, I should think." To xQ. 60, Was this pipe that was exhibited to you plain gas pipe? He answered, "Yes, sir; black iron pipe." Thinks he saw the pump standing there long after the stranger left—what I supposed to be the same pump (xQ. 114, 127). T. H. Tyson was there when the well was put down (xQ. 121). (This first well "was in the street, or on the northeast corner of the block, west of the Presbyterian church, as occupied by F. Stout, now known as Woodward Block" [Block No. 4].) Knew of another well put down near the same place; did not see it put down; it was two or three years after this first one; it had the appearance of being a Driven Well; it was eight or ten rods east, I should say (D. Q. 31, 32, 33, 34, 35). Saw one well made; did not see any portion of the other made.

Don't know how they made the second well (xQ. 88). Has no knowledge of the putting down of the well at the Presbyterian church (xQ. 164). The second well was in the northwest corner of the Church Block (R.D.Q. 8).

In an affidavit (Complainant's Exhibit, C. T. Kimball) made by him May 24, 1879, he says he saw the Drive Well on the northwest corner of the north corner lot, made by driving down an iron tube and screwing on the top of said tube an iron pitcher pump. I pumped water out of it at the time; it was a great curiosity. I think I saw this well above described in the Summer of 1863; I am positive it was after the Fall of 1861. The tube stood up from the ground 16 or 18 inches; the tube was driven from the top of the ground.

Page 1931.—C. T. **Kimball**, being recalled in rebuttal: Said he never saw in the basement of the hotel, while Burr kept it, that he remembers, of any pump material (D.Q. 18). Never saw *Charles Brown* and *John West* at *that hotel having in their charge material for making an iron or Driven Well* (D. Q. 19). Don't remember of a well being put down on the west side of the river at Independence of which J. M. Chandler and J. B. Turner purchased the right for Minnesota (D. Q. 20). Is quite sure, but will not swear, he saw the second well before 1866 (xQ., 4, 5, 9, 10, p. 1932); thinks it was a few rods east of the first well; perhaps 4, 5, or 6 rods; it might have been on the northwest corner of the block in the northwest corner lot; thinks it was further east, but not sure (xQ., 23, p. 1933); he regarded it as quite a novelty (xQ., 41, p. 1934); point that went into tube of the first well was iron; am positive there was no wood (xQ., 52, 53, p. 1935); did not see any wooden plug driven out, and he saw it drove down (xQ. 54); only one man with the party who showed him the point; thinks he was alone (xQ. 55, 56); did not say he had any patent on the invention (xQ. 57 to 59); he spoke and explained that he had a process to bore out and make a reservoir at the bottom of the well and pump out the sand (xQ. 60); thinks he said he came from the State of New York, but did not say where he was going; thinks he went West, however (xQ. 75, p. 1936); my best recollection is he did not mention a patent (xQ., 82, p. 1937); it might have been this party told me there was a patent at the time; my best recollection is he did not; am not positive (xQ. 88); don't think I said so in the affidavit made Dec. 30th, 1878 (xQ. 82–89).

Q. Look at the affidavit and tell the Commission if you still think you did not make different statements? A. "It has reference to the reservoir and not to the well; the mode of making the reservoir *that the party claimed was patented* or had been, which I had reference to in the affidavit (xQ. 92); I took it from the talk it was on the reservoir; it might have been on both, but he dwelt more especially on the reservoir (xQ. 95, p. 1938); does not remember hearing anything more of a Drive Well from 1861 to the time of the second well (Q. 111); best recollection the first well was driven 12 to 15 feet; does not think it was 22 feet (xQ. 112–116, p. 1940); is quite sure it was not driven 22 feet (xQ. 118); was a blacksmith shop there soon after if not at that time (xQ. 124); thinks it was April or May, will say April (xQ. 127); asked if they went to the *blacksmith shop* for anything; says they borrowed a pair of horses and a maul; can't say who from (xQ. 138, p. 1941); the man who put down the well was about 40 years old (xQ. 147); he interested me in boring a hole in the ground through the pipe and explained the mode of doing so, which I had never heard before (xQ. 149, p. 1942); think Thomas Tyson was there and Dr. Warne came there (xQ. 150); don't remember that he said he had ever put down wells before (xQ.155); think he exhibited some papers to us down in the basement, but did not read or look at them; I know nothing about a patent on a reservoir except what this man told me (R.D.Q.2); I know nothing about how deep the pipe of the first well was down except what the man said; thinks it 15 or 16 feet.

Defendant's Exhibit A.

C. T. KIMBALL'S Affidavit, p. 1943.

Dated December 30, 1878.

In this affidavit he calls the hotel he kept the Revere House, now the Merchants' Hotel. Gives a description of driving the first well and says it was driven until the man said it was down 22 feet, screwed on a pitcher pump and then pumped out water. The man told him there was a patent on a well made by driving a pipe down into the earth and inserting a machine that folded and opened on the principle that an umbrella opened and folded. That the ribs of the machine were steel knives and turned around and cut out a reservoir as large as a barrel, and the dirt could be pumped out by a sand-pump.

But the man claimed in a sandy or gravelly soil he could make a well without cutting out the earth; that the gravel and sand were a sufficient reservoir.

We tried it where I described and succeeded in making the well; it was a success. I am sure this was early in the Spring of 1861 from the circumstances above stated.

NOTE.—This affidavit incontestably relates to the apparatus of Chamberlain's patent, granted Jany. 30, 1866. See description, pages 1928 and 1929—cut interposed—which was first shown at Independence in Spring of 1865.

Page 1764.—SAMUEL P. MCEWEN, a crony of defendant's counsel, Jed Lake (D.Q.16), says when he sawthe well it was the Spring of 1861, from the 15th of April to 1st of June (D.Q.15), on the northwest corner of Block 3 (D.Q.8); thinks there was a small house (now occupied by Goodwin) on the block (D.Q.9); on the lot next east of the well (xQ.7); thinks the Ross House, now occupied by Mr. Pond, was on the block then (D.Q.10). The well tube stood 18 or 20 inches above the ground (D.Q.11). Thinks there were no buildings on Block 22, opposite (xQ.10). There were several wells of the same kind put down the next year (xQ.14). Does not remember the name of the *firm* who put the well down; one of them was called Charley; they were Eastern men stopping here at the White House (xQ.16, R.D.Q. 3). He saw the well made (xQ.18); there was a *wooden plug* stuck in the bottom of the tube; there were small holes drilled in the bottom of the tubing; *no screen on* (xQ. 20). C. T. Kimball was there and took quite an active part (xQ.22). Thinks there was a patent (xQ.27). They called it an experimental well (xQ. 28). There were no boards, box or platform (xQ. 29). Thinks there was a blacksmith shop opposite; blacksmith named Kays (R.xQ. 1,2).

Four others saw some driving:

TREXLER, from across the street, in the forepart of May, 1861.

DR. WARNE saw men driving in May or June, 1860 or 1861.

A. F. Williams, as he passed last of May or forepart of June, 1861, saw men driving a long rod.

Campbell thinks the well was driven; was along there several times when they were putting it down; *gives no date*, but according to his best recollection it was when the club was playing cricket on Block 4.

Their evidence is as follows:

Page 1724.—J. E. Trexler says it was the fore part of May, 1861 (D. Q. 20); saw men driving (D. Q. 9); was on opposite side of the street (xQ. 7); they tied a point in the pipe (xQ. 20).

It was on the block where the Presbyterian church now stands, nearly opposite where he lives on the southwest corner of Block 22 (xQ. 7, 8.)

There were no buildings on the block where he saw the well (D. Q. 19); well may have remained 3 or 4 months (D. Q. 16); the parties were strangers (xQ. 16).

Page 1652.—Dr. George Warne says it was in May or June, 1860 or '61, on the northwest corner of Block 3, he saw men driving a tube; asked what they were doing; they said making a well; considered he was sold and went home; passed soon after and they were pumping water freely; the pump stood 16 or 18 inches from the ground (D. Q. 51, 34, 49); there were *no buildings, fences or other improvements* on the block at that time, or on the block next west (D. Q. 39, 40); *knows nothing about the construction* of the well (xQ. 14); saw another well of that kind on northwest corner of Block 3, near where this one was in 1865 or '66 (D. Q. 50, 51).

There was then a small one-story house a little east of this well, and a residence on the southeast corner of the block (D. Q. 52); had seen no other wells meantime (D. Q. 53, 54). *The first well was constructed substantially according to the mode of Green's patent* (xQ. 20); saw only a part of the Drive Well of 1860 or '61, but nearly the whole of the well of 1865 or '66 (xQ. 29); don't know the parties; there was one man present, Kimball was his name; kept a public house, what is now known as the Merchants' Hotel (xQ. 31, 33, 34); when the first well was made there were no buildings or fences on Block 3, but in the Fall a house was built on the southeast corner, and in the Fall of 1863 a house was built near to and east of where the first well was driven, built and occupied by a Mr. Hill (xQ. 68).

Page 1868.—Dr. George Warne, when again called, ostensibly testifies further and more fully in regard to the second well he before testified of as having been put down in 1865 or 1866 on this same Block 3, as follows:

The second well a man had a tube nearly into the ground when he first saw it; when down as far as he wanted it he put inside the tube a rod with two springs in the bottom springing outward from the center of the pipe.

"He sprung the springs together, placed it inside of the well tube and chucked it up and down two or three times, as he said, to drive a wooden plug out of the bottom of the pipe; then put on to the inside rod a handle similar to an auger handle and turned it round and round and back and forth, crowding it downwards, as he claimed, to stir up the water and sand and gravel so that he could pump out the fine sand; after turning it round to his satisfaction he commenced to draw the inside rod out and kept turning it round until he got the springs back into the pipe, then he withdrew the rod from the pipe, put on a pump and proceeded to pump roily water and sand—that is all I saw of that operation" (D. Q. 4). Did not see the same springs used at the first well or elsewhere (D. Q. 10).

Knows only by common report that Charles Brown put down this second well (D. Q. 12). Chandler and Turner said they bought from said Brown the right of Minnesota (D. Q. 13). Chamberlain's patent shown him, and he says the knives shown at the bottom of the design do not represent the springs as he saw them in use in making the second well (D. Q. 14). The parties making the first well did not explain anything to him, only said they were making a well, and he did not afterwards hear it stated how they made it (D. Q. 19, 20). To his best impression there was no one there but the two persons driving the well (D. Q. 22). (In his previous examination he said C. T. Kimball was there) (xQ. 31, p. 1662). At the time of making the second well there was a small house near it and another one on southeast corner of the block (xQ. 1, page 1870). This well was some twenty-five feet from the street line of the northwest lot, and twenty or twenty-five feet from the west line (xQ. 4). There was no platform under this pump (xQ. 5). The streets were not then built upon or fenced in that locality ; the lines of the streets could not be easily defined, and they were not in 1861 (xQ. 6, 7). John E. Trexler occupied one of the houses on Block 22 at the time he saw the second well (xQ. 9). "My impression is there was an old building on the corner, used as a blacksmith shop" (xQ. 14). Does not know who made the second well or who were present (xQ. 25). Does not think the putting in of the second well attracted the attention of the citizens to any extent (xQ. 32).

Page 1707.—A. F. **WILLIAMS** says he can fix no date, but thinks it was last of May, or first of June, 1861 ; saw men on Block 3 driving a long rod while he was passing along the street (D. Q. 7, 8, 13) ; there were a great many looking on ; thinks he saw Kimball there when well was driving (xQ. 1, 3).

Page 1822.—**JOHN H. CAMPBELL** says according to his best recollection it was when the club was playing cricket on Block 4 ; thinks it was driven ; he was along several times when they were putting it down (D. Q. 10, 15). It was on the corner of the lot east of the cricket ground, on the northwest corner of the block the Presbyterian church is on (D. Q. 11, 12).

Don't know how long it remained (D. Q. 19). Knows there was a blacksmith shop opposite, either then, before, or since (xQ. 7). Cannot say *positively* whether there was anything besides the well on that block (xQ. 9). His impression is there was a house on the southeast corner of the block (xQ. 10). Don't remember how many men were at work on the well, perhaps two or three; they were strangers to him, and he knew none of them (xQ. 15, 16, 17).

Presumes he saw the point, but can't tell *positively* and will not swear *positively* that he saw them drive the tube (xQ. 20, 21); twenty years is a good while to remember these things (xQ. 23).

Thus we have seen that only four witnesses claim to have seen the process by which the well was made, two of the three being uncertain as to the year in which it was made. Of the four others who claim to have seen parties working upon *a* well, the method of making of which they do not pretend to describe. Trexler says it was in May, 1861; Dr. Warne in May or June, 1860 or 1861; Williams the last of May or forepart of June, 1861; and Campbell can only say it was while the club was playing cricket on Block 4. All else they testify of concerning the well itself is hearsay.

We now proceed to quote the evidence of parties who claim to have seen *a* well on Block 3, which somebody told them was a Driven Well, but no one of whom pretends to know personally what kind of a well it was, or how made.

We quote from their testimony in the order of their examination:

Page 1621.—George Hovey, the defendant in this case, says that he saw a Driven Well; couldn't tell the year, thinks it was 1861, near the corner of Mr. Stout's lot, near Main street; the pipe appeared to be in the ground, and stood up foot and a half; saw men pumping water; they said it was a Driven Well, driven in the ground (D. Q. 34, 35). There was no curbing around the well (D. Q. 36). Knows that E. S. Hovey, B. C. Hale, John Ganier, Martin

Rush and Franklin Rush were there and saw the well at the time he was there (D. Q. 92). Saw it a number of times, probably saw it two or three times (D. Q. 95). From the first to the last time he saw it was about a month (D. Q. 97). The block was not fenced; there was no buildings on it at the time (D. Q. 103 and 104). The nearest building, he thinks, was a blacksmith shop across Main street to the north (xQ. 1, 2, p. 1631); thinks it was the same year the war commenced; it was a great day; soldiers were getting ready to go to the war (xQ. 49, p. 1634); doesn't remember whether his son Nelson was with him, and doesn't remember whether his son went to the army with that company or not; thinks it was before his son enlisted (xQ. 77). Was not acquainted with the man that was running the blacksmith shop; it was occupied at the time; is sure that it was there at that time (xQ. 79, 80, 81, p. 1636). Nothing was said as to who put the well there, and no one professed to have seen it made; B. C. Hale told him about it (xQ. 85, 86, 87). Don't remember how long after this that he saw another well, it was a number of years (xQ. 107, p. 1638). The next one he remembers was in the Fall of 1867; saw another Drive Well near the Presbyterian church; could not state the year, but thinks it was after 1867 (xQ. 112).

Does not think there was a well on the northwest corner of the Presbyterian church block in 1862 or 1863; thinks he should have seen it if there had been one; was not positive whether it was 1861 or 1862 when he saw the first well (xQ. 116, 117, 118, p. 1639).

If there had been one of those wells in 1862 or 1863, would have been likely to have seen it (xQ. 119). Is not certain whether it was in 1861 or 1862 that he saw the well; does not know whether his son was in the army or not (xQ. 120, 121). Will not swear positively that it was not a third company that was leaving when he was in town and saw the well (xQ. 123); has no knowledge of how it was put down, of the screen or point (xQ. 127); says he is sure the *blacksmith shop* was there at that time, because sometime after he was there, a year or two, and got a little work done, and supposed it had been the shop all the while (R. D. Q. 7, p. 1645). The grass was growing up under the pump of the first well he saw (R. D. Q. 8). Doesn't remember the name of the captain of the company his son went to the war with. The well was a novelty, and made a strong impression upon him (R. D. Q. 29, p. 1647). Doesn't remember whether the railroad was completed and the cars running at the time (R. D. Q. 33).

Page 1671.—PERRY MUNSON, about 1861 or '62, heard of a well being made by driving an iron tube; went to see a well of that kind (D. Q. 3, 4, 5); it was near the corner of Main and Centre streets, and near the northwest corner of Block 3 (D. Q. 6, 8, p. 1672); here was an ordinary gas-pipe in the ground; nothing around it but earth; about two and a half feet from the ground to the top of the pump (D. Q. 9 10, 11). At the time he saw the well there was a party playing cricket on the Block 4 (D. Q. 18); is not positive as to the year; it was in 1861 or '62; if in 1861 it must have been in the Fall or last of the Summer; didn't see the well afterward to his recollection (D. Q. 20). Saw another well on the same block east of this in the Summer of 1868; didn't know of any other well of that kind between the times he saw these two (D. Q. 26, 27, 28, 29).

Page 1673.—CHARLES F. HERRICK, was merely examined as to the times of playing cricket, and is quite certain there was no cricket played at Independence in 1862 (D. Q. 8); but cannot swear positively that he was not engaged in playing ball on the grounds after 1862 (xQ. 8).

Page 1677.—CHARLES F. PUTNEY, examined in regard to the cricket club, cannot remember whether he was a member (D. Q. 3); left Independence latter part of August or the fore part of September, 1861 (D. Q. 5).

Page 1676.—PERRY MUNSON, being recalled and examined in regard to the game of cricket, could give no description of the game, but said it was new to him (D. Q. 4); that he saw C. F. Herrick, C. F. Putney and Philip Bartel, one of whom told him they were playing cricket, but will not swear positively that they were there at the time, or that one of them told him they were playing cricket (xQ. 1, 2).

Page 1678.—THOMAS SHERWOOD says he was a partner with C. T. Kimball in the hotel business in the Winter of 1860 and '61 (D. Q. 5); that "in the Winter or the Spring of 1861 a gentleman stopped at the hotel and exhibited to C. T. Kimball and himself—I don't know what he called it—that he could drive into the ground, attach a pump to the top, and would pump from a well. The idea was that he could pump water from the ground, make a well; that was the first I heard of it (D. Q. 7); there were holes in the tube; he claimed that by driving that in the ground and attaching a pump you could pump water the same as from a well; I took but little stock in it, but Kimball did; all I remember is that you could drive it into the ground and pump water (D. Q. 8, 9, 10); the tube was about one and a half inches diameter; he had a pump; I think a pitcher pump; I couldn't describe any implements except that he had a pump and tubes (D. Q. 11, 12, 13); a short time after he came back to the hotel and said he had driven one the other side of the river, I went to see it; I saw a pump that looked like the one he exhibited to us and a tube driven into the ground; the tube was about a foot out of the ground; and the pump attached to that; it was on the northwest corner of Block 3" (D. Q. 15, 16, 17, 18, 19, 20, 21).

Says he never saw a well before having this conversation, but many times after it; pumped water several times; there was no platform around it; the man was stopping at the hotel at the time that he showed him this pump, then called the White Hotel, now the Merchants' Hotel (D. Q. 22, 23, 25, 26, p. 1680); when he saw the well was about the time Kimball left; couldn't say whether it was April or May (D. Q. 38). The well may have been a rod or a rod and a hal ffrom the traveled road (D.Q. 44, p. 1682). Kimball remained in Independence for two or three years afterward (xQ.4).

He (Sherwood) kept the hotel for two or three years after (xQ. 8). Thinks his hotel register was burned (xQ. 11).

The tube was in the basement of the hotel when shown to him; Chas. T. Kimball was present; the only one he remembers; the stranger showed them the pipe; cannot state his name. There were holes in the bottom of the tube about as large as the small end of a clay pipe (xQ. 29, 31, 32, 33, 34, p. 1684). Cannot say that he ever saw this pump and tube after it was shown to him in the cellar, for he didn't see the well driven (xQ. 43, 44). The stranger's conversation was addressed to Kimball; *he* took stock in it, I did not. Talked the matter over with C. T. Kimball, and that was how he came to get at the fact and circumstances (xQ. 45, 59). He didn't know that the man drove that tube and made a well; he didn't see it done (xQ. 65, p. 1686).

According to his best recollection it was in the latter part of April, or the fore part of May (xQ. 66). He got the impression it was a patent, don't know how (xQ. 67).

Thinks the well did not go into use at once. The well was taken up during the Summer or Fall, don't know which (xQ. 71). To the best of his recollection the next well of the kind he saw was the year they built the Presbyterian church (xQ. 72). Cannot say the well he saw was not a *dug* well; didn't see them make the well, and knows nothing about it (xQ. 74). He says he could not give an accurate description of the tubes, pipes, tools and pumps that were shown him (xQ. 78). His *recollec-*

tion is, it was while Kimball was a partner that this man was there (R.D.Q. 1, p. 1688).

The well he saw when the Presbyterian church was building was about five rods east of the first well, and thinks the pump was nearer the ground (xQ. 11, 12).

Page 1689.—C. B. **KANDY** saw a well on the lot west of the Presbyterian church; an iron pipe driven into the ground, with a pump attached; cannot tell what kind of a pump; thinks it was in 1860, first thought it was in 1861; has the impression it was from three to four feet from the ground to the top of the pump (D. Q. 3, 4, 6, 7). He went into the service in 1862, and it was before he went into the army; must have been a year and a half before; he couldn't tell the month, it was the Summer months (D. Q. 9, 10, 11, 12).

Does not think he saw the well made; might have been a tube placed in a reservoir of water, so far as he knew (xQ. 1, 2, p. 1690). He went into the regiment as sutler, the 1st of May, 1862 (xQ. 14). Was in Independence in 1863 and 1864 (xQ. 20, 22). Does not remember the name of any person who was there when he saw this well; heard on the streets men were driving a well and it was a curiosity to him, and went; heard a good deal of talk about it at the time, they all thought it was a curiosity (xQ. 41, 42, 43, 44, p. 1692).

Doesn't know who owned the well; two men had charge of it, they were stopping at the Merchants' Hotel at the time; don't know their names (xQ. 45). Don't think wells of that kind went into general use immediately (xQ. 47).

Page 1693.—H. A. **KING** *heard* of a well being made by driving a tube into the ground; went to see it after hearing about it; saw a pump attached to a tube about an inch and a half in diameter; from ground to top of pump might be three and a half to four feet; supposed it was driven from the appearance; it was said to be a piece of pipe that was pointed, *and perforated tin or fine wire put around the point to keep the dirt out*, and driven in in sections, that is the way he understood it; saw this pump, and pumped himself (D. Q. 4, 5, 7, 9, 10, 12, 13, p. 1694). It was on the south side of Main street; might have been three or four rods west of where the Presbyterian church is; thinks there were no buildings then on that block or the one west; it was in the year 1861; thinks in the month of May; in the forepart of the season, he knows (D. Q. 16, 17, 18, 19, 20, 21). Didn't see the well made (xQ. 20, p. 1696). Couldn't tell who told him the tube was perforated and screened with wire; it created a good deal of talk (xQ. 22, 23).

Doesn't of his own knowledge know it was a Driven Well, thinks that kind of wells did not go into use for several years (xQ. 27, 28). Thinks a well may have been made and covered over with plank and exhibit the same appearance (xQ. 32).

Page 1697.—**Frank S. Trask**, as near as he can recollect, in the first week of May, 1861, heard of a well claimed to have been made by driving an iron tube; went to see it; found it on the west side of the river on Main street, on a vacant lot on the south side; as near as he can recollect, he saw a pitcher pump; it stood up about 18 inches or 2 feet, on a tube; saw water pumped; pumped himself; it was on the third block from the river, where the Presbyterian church now stands, on the northwest corner, or very near it (D. Q. 3, 5, 6, 7, 8, 9, 11, 13, 14, 15). He was between 13 and 14 years old at the time (xQ. 4, p. 1698). The first time he saw it nobody was there; stopped and pumped water out of it (xQ. 14). As near as he can recollect the nearest buildings were Mr. Soubet's and the Empire House (xQ. 16).

Page 1700.—**John A. Davis** was in Company E, Fifth Regiment Iowa Infantry; enlisted July 5th, 1861 (D.Q. 3). He first heard of a Driven Well in July, 1861; saw the well (D. Q. 7, 8); it was near the northwest corner of Block 3 (D.Q. 10, 12); he was going at the time to and from the drill grounds of Company E (D. Q. 13). Asked to describe the well, he said it was on top of an iron gas pipe; the base of the pump about a foot from the ground; appeared to have been driven or a hole bored with a small auger, and then driven; the pipe appeared to fill the hole; at the time the pipe was said to have been driven into the ground (D. Q. 17, 18, 19, 20). Didn't see the well made; doesn't know it was a Driven Well (xQ. 3, 4, p. 1702).

Page 1705.—A. J. **Francis** enlisted in Company E, Fifth Iowa Infantry, in June, 1861; Company assembled at Independence; while there heard of a Driven Well; went to see it after he heard about it; found it, as near as he can recollect, near where the Presbyterian church now is; there was a pump on it; it stood on a grass plot; there was grass all around it; it was an iron tube; pump seemed to sit right on that plot of grass; doesn't know what was in the ground; didn't see it put there; doesn't recollect whether there was anything between the bottom of the pump and the ground; recollects seeing it at least a dozen times (D. Q. 4, 5, 6, 7, 8, 9, 10, 11, 12, 13). He could safely say the supply was inexhaustible; was informed it was an iron tube driven into the ground; of course it was canvassed; it was a novelty, something new; it was some time in June, 1861; to the best of his knowledge the well remained until after he left (D. Q. 15, 16, 17, 18, 19, p. 1706).

Sergeant Lewis told him it was an iron tube driven into the ground; couldn't qualify to any one else; it was canvassed among the boys and talked about (xQ. 1, 2).

Page 1718.—B. C. **Hale** first heard of a Driven Well in the city of Independence; saw it in the street, or close to the street, near the Presbyterian church, on the south side Main, and it seems to him on the west side of the other street; not positive which street (D. Q. 11, 12, 13, 15, p. 1719). "It looked like a pump set on a board; the pump stood on a platform; an iron pump was all I could see" (D. Q. 16). "To my recollection there was a platform of boards, small, just apparently enough to keep the thing from tipping over;" could see no pipe; I couldn't tell what went into the ground by sight; nothing indicated any removing of earth (D. Q. 17, 18, 19). He pumped for curiosity, *might* have watered his horse; saw others pump frequently (D. Q. 20, 21). Don't know how long the pump remained; it was taken up that Summer, a month or so, might not be half that long, might be more (D. Q. 22, p. 1720). The first time he saw the pump the ground was real wet, the water stood in little puddles in the horse tracks on the other side of it (D. Q. 23). He doesn't know what the boards were there for any way; it was an iron pump, a little over three feet tall; it was in 1861 (D. Q. 24, 26, 27, 28). It seemed to him the well was not there when Captain Lee's company went away (D. Q. 31). He doesn't recollect of seeing Mr. Hovey at the well; is pretty positive he didn't (D. Q. 34). The report was it was in an iron tube driven into the ground; "it looked just like a pump right on the ground" (D. Q. 35, 36). Could not identify any person with whom he had conversation regarding the well; did not see it put down or know the parties (xQ. 3). Charged his mind particularly with the well from its novelty. Says the streets were laid out so you could designate them; designate the line of the cross streets where the well was made by the buildings on the street, by a building on the north side of Main street used he thinks as a blacksmith shop, and on the south side and east of the street by a residence, a dwelling of some one, he don't know whose (xQ. 9, 11, 12, 13, p. 1722). The blacksmith shop came up to the east line of the street running north and south by the well or near to it on the corner of Main and that street; it was brick, I believe (xQ. 14). The residence he names was on the south side of Main street on the east side of the street running north and south, a little further away from the street (xQ. 15). He didn't examine the well to see if it was tight in the ground (xQ. 23). On his redirect he was not certain that the building on the north side was occupied as a blacksmith shop or that it was a brick building (xQ. 1, 2).

Page 1730.—Elias S. Hovey has been for 8 or 9 years in the iron well business (D. Q. 4). Is the patentee named in the Letters Patent No. 123,903, for an improvement in the formation of Driven Wells (xQ. 108, p. 1743). He went to see a Driven Well in Independence on the south side of Main street; it was what was called a pitcher pump screwed on top of an iron pipe; got out of the wagon and went and drank out of it (D.Q. 37, p. 1732). He noticed no hole around the pipe or any appearance of excavation; saw it but twice; times perhaps a month apart; the pipe appeared to have been forced into the ground in some manner simply; don't remember of anything to hold the pipe; saw other persons there, four or five the first time, and one other the second time; it was 10 or 15 feet from the sidewalk on Main street (D. Q. 39, 40, 41, 42, 44, 45, 46, 47). There was nothing between the well and the street to prevent it being seen by persons passing (D. Q. 49). It was in 1861; the early part; the first time he *thinks* it was May, might have been June; the second time in June or July, he thinks, 1861; it was while the soldiers of the 1st Company raised in town was here; a young man by the name of Furcht went with him and got a drink of water; Furcht enlisted in the 5th Regiment of Infantry; he doesn't know the company (D. Q. 50, 53, 54, 55, 56). Doesn't know of any wells being made between 1860 and '71 by driving down a tube without a rod (D. Q. 61, p. 1734). George Hovey, the defendant, is a brother of his (D. Q. 62). He commenced making iron tube wells with him in the Fall of 1870 (D. Q. 64). Knows of several hundred wells having been made between 1866 and 1871 by driving down a tube without a rod (D. Q. 75). He understood question 61 to be from 1866 back to 1861 (D.Q.76, p. 1736). Says he will not swear that he saw a pitcher pump with a screw on the lower end, suitable for attaching to gas pipe in 1861 (xQ. 5). Does not think he saw any account of this well published in newspapers; doesn't know Furcht's given name; has never seen him since (xQ. 14, 16). Knew nothing as to how the well was constructed; thinks it was in June or July (xQ. 18, 19). Thinks the meeting he was attending that day was in the open air on the west side of the river, but will not swear positively; it was an address to the soldiers by the Rev. John Fulton (xQ. 38, 39, 41, p. 1738). Doesn't think he ever saw the well after that day (xQ. 46). He lived two miles out of town, came down on that side of the river which fetched him right past the well; saw it was something he had never seen the like and wanted to see what it was; got out of the wagon and tried it; does not remember seeing any grass about the well (xQ. 47, 48, 59). His brothers, George and Lewis, were with him; Lewis and himself got out; thinks George did not go with him to the well that day (xQ. 61, 62, 64, p. 1740). Will not swear positively it was a pitcher pump, but thinks it was (xQ. 69). Saw it again when the soldiers were here that were enlisted in the 9th Iowa (xQ. 73). In his first evidence he said they enlisted in the 5th, since that has refreshed his memory, it was the 9th (xQ. 72, 73). He refreshed his memory by seeing the records which Mr. Lake showed him; thinks Mr. Lake suggested that he might be mistaken, and says *he might be mistaken about many of these things, and remember different when suggested to him* (xQ. 74, 75, 76, 77). Does not remember that any one told him how the well was made (xQ. 83). He thinks a well could not be made at that place by driving down a tube with a wooden plug in the end of it and perforations the size of a quarter inch (xQ. 85). His opinion is that a pipe driven down with a plug in the bottom and the plug driven out, that it would become choked and would furnish no water at all (xQ. 86). He thinks a successful well could not be made there in that manner (xQ. 88). Thinks a well could not be constructed at that place unless the screen point had been used (xQ.90, p.1742). The first well he made, he says, "We took an iron bar, made a hole down a little ways, attached a screen point to a piece of pipe, and drove it right down into the water bed, attached a pump and pumped water, if we could; continued to make wells in that way about two years" (xQ. 92, 93). After that, he says, by driving down a screen point with holes about one-eighth of an inch in size into the water bed, pumped out the fine material from the coarse, then withdrew it and put on a point with a finer screen which had large perforations in the pipe and was covered with a wire cloth, after which he attached a pump; thinks he made wells that way less than a year; cannot tell when he ceased to make them (xQ. 94, 95, 96); cannot tell when he went in with George Hovey without his books, and they were burned, *but could fix the date of the first well without books* (xQ. 100, 101). After he went in with his brother they bored down to water with a two and a half inch auger; thinks it was before 1870; how long could not tell; thinks from six months to a year (xQ. 103, 104, 105, 106). He is the patentee named in Letters Patent No. 123,903, dated February 20th, 1872, for an Improvement in the Formation of Driven Wells (xQ. 108). Has made wells according to the specification of that patent; always made them that way after they learned it, about a year and a half previous to making the application for the patent, which he thinks was about the first of the year 1869; doesn't remember of varying the method of making wells afterwards during the time he was with his brother (xQ. 110, 111, 112, 113, 114). "The only thing we expected to secure in Letters Patent, I think, was to secure the right of cleaning out the water bed before putting in the fine screen, by using the coarser screen first" (xQ. 116, p. 1744). "The patent says nothing about boring; we did not care how it was the pipe got down to the water bed, but intended to cover the process of using the screen for pumping the sand and dirt before putting the finer screen down" (xQ. 117). Did not deem it essential how he got down to the water bed; sometimes had to drive the tube to get it down (xQ. 118, 119, 120). Cannot tell when he first saw an auger used in boring wells; it was in La Porte, Iowa (xQ. 123, 124). It saved a great deal of hard work; there were places where there was no necessity of boring, still we could make them much quicker and easier by boring; they forced or drove the permanent pipe into the water bearing stratum from five to ten feet (xQ. 126, 127, 128). Thinks the first Driven Well he heard of after seeing the first one was in 1866; the first one he saw was the 12th of October, 1867 (xQ. 131). About that time these wells went into use, he thinks, in Buchanan County in 1867; when he saw the first well thinks he heard the talk that the man put it down for an advertisement; don't know who put it down; supposed it was an advertisement of the wells, the peculiar kind of wells; don't know what he was selling; don't remember of hearing whether it was patented or not (xQ. 132, 133, 134, 135, 136). Doesn't know any difference in the productive capacity of a well made by boring or driving; thinks the same artificial forces would be employed by both to obtain a supply of water (xQ. 141, 142). Thinks he did not hear of the 1861 well before he came by and saw it; don't know that he heard how it was made (R. D. Q. 3, 4, p. 1746).

Thinks if the pipe that was driven down had fine holes drilled in the side of it and considerable fine sand was pumped out when it was first put down, it would then work and give a supply of water; says there was sand lying on the top of the ground that looked very similar to what he has since pumped out in making wells (R. D. Q. 18, p. 1747).

Says that whether you could pump out sand with a rod would depend upon whether it was hollow or not (R. D. Q. 20). "We did conform ourselves to boring with an auger and lifting the dirt out clear down to and into the water *as far as we could get it;* can make a well just as well without a screen as with it by having the holes in the pipe small enough and by using a pitcher pump; the smaller the holes are the better; he thinks, perhaps, quarter inch holes would work (RxQ. 2,3, p. 1748). The usual size of perforations he makes for pumping out sand are about one-eighth of an inch; the first well he saw in 1861 he thinks would have worked if perforations had been over one eighth of an inch; holes half an inch in size he thinks would not have worked without a screen (RxQ. 7, 8). He understood the usual size of holes to be three-quarters of an inch to an inch; thinks where the first well he spoke of was made it would be a long time before the water would clear up if the holes were an *eighth of an inch in diameter;* that in ten minutes it would be clear enough to drink (RxQ. 9, 14, 15). Don't remember how big a pile of sand he saw at the 1861 well; it would be a great deal nearer a pail full than a cart load; did not know where it came from, but looked the same as he has pumped out many times since (RxQ. 17, 18, 19). The sand was scattered around and had been stepped on more or less; he didn't notice any grass near the pump (RxQ. 21, 22).

Could not say whether there was any grass near the pump, but thinks he is able to swear that the sand looked the same as he pumped out at the same place last Spring. He is contributing money and time to defend this suit (RxQ. 23). He did not claim or attempt to make a claim in his patent for boring or driving either, but for the method of pumping out fine sand to form a water-bed (RxQ. 36). Does not know why when it was so much easier to make wells by boring that he directed boring to be done in the specification of his patent, except because it was the more usual practice, or had been

(RxQ. 37). Does not remember pumping up any sand from the 1861 well the last time he saw it (2d R. D. Q. 2, p. 1750).

Page 1751.—E. A. HOVEY has been putting in iron tube wells about eleven years (D. Q. 6). Says wells cannot be made by tools attached to Green's Reissue on account of the sand pumping into the tube, if it could be pumped at all (D.Q.11,12, p. 1752). Has used wells in the Iowa soil as deep as 40 or 45 feet, the shallowest about 12 feet; in a shallow well by using a pitcher pump water might be pumped with the instrument shown by Green; a successful well can be made in the Iowa soil by using fine brass wire on the lower end of the tube, and drive well point perforated with small holes that would admit fine sand and not coarse(D. Q. 13, 14, 15, 16, 17). Was a member of the firm of Hovey Bros., of which defendant is a member; while George Hovey was a member of the firm of Hovey Bros. we made wells by boring with an auger down into the earth and into the water, putting down a tube with drive-point and forcing it into the water-bearing strata, then attaching a pitcher or cistern pump to the tube, pumped out the fine sand, withdrew the tube, then inserted a tube having at its lower end what they call a screen point, made by drilling holes about three-quarters of an inch through the tube two and a half feet up from the bottom and covered with fine brass wire cloth, putting a plug of iron or wood in the lower end of the screen tube and inserting in the same place in the water bearing strata, where the fine sand had been pumped out, then attaching a pitcher pump *and pumping out what dirt and very fine sand comes through the fine screen*, then taking off the pitcher pump and attaching an anti-freezing pump. The plunger works in nearly all these wells about four feet down below the surface of the ground; the augers are from two to three inches; iron augers such as are used in timber (D. Q. 20, p. 1762). The tube with the small holes is used to pump out fine sand to prepare the water bed so that the water will flow freely through the screen point; this leaves the coarse sand or fine gravel loose, so that the water flows freely through; the holes drilled into this tube are about one-eighth of an inch (D. Q. 21, 22, 23). Before George Hovey joined the firm it was E. S. and E. A. Hovey, and we had adopted this method before he joined the firm (D. Q. 24, 25). Does not think there are any complicated devices in Green's original patent that any person skilled in the art of making wells could not by reading the specifications make that kind of well (D. Q. 27). There are differences in Green's Reissue (D.Q. 28, p. 1754). The first he knew of the method described in Green's Reissue of making a well, in 1867, he helped put it down; from 1867 to 1871 he put down several hundred in that way himself (D. Q. 29, 30). The firm of Hovey Bros. consisted of George Hovey, E. A. Hovey and E. S. Hovey in the Spring of the year 1871; it dissolved in the Winter of 1873 and 1874; the place of business was in Independence, Iowa. George Hovey made and put in and got orders for wells, E. S. Hovey took orders and sometimes assisted in the putting down of wells, he himself took orders for wells, assisted in putting down wells, ordering material and paying for it (xQ. 1–8, p. 1756). We each kept a separate book; perhaps half of the wells I have last testified of putting in were put in by Hovey Bros., I mean in each county; could not say whether or not they put in 400 in Buchanan Co., might have put a hundred more or less in Black Hawk Co.—thinks a hundred in Butler Co., not as many in Breemer Co. (xQ. 9, 11, 12, 15, 16, 17, 18); has no data, and don't know of any; has a book in which is a partial record, couldn't say whether it contains a record of the business of Hovey Bros.; quit the business in 1878, and has since been in no particular business (xQ. 20, 21, 22, 23). Is somewhat of an expert in the science of making wells; he rather thinks the instrument set out in Green's patent, in coarse gravel would make a successful well; never saw one made that way; thinks it would work; never had any experience in such water-bearing strata, but thinks it would work (xQ. 31, 34, 35, 36, p. 1758). Is not interested in the event of the suit; does not know if he would be affected if this suit should terminate against the defendant, and his wells be declared an infringement; has no arrangement with his partners by which he would be held harmless (xQ. 37, 38, 39, 40). They forced the drive point into the water-bearing strata generally by driving, sometimes by the hand, lifting up and dropping, usually forced or drove it from 4 to 10 feet (xQ. 41, 42). Thinks he never drove down into a second stratum; he usually used a socket head fixed on to the top of the pipe filled with wood, and used an iron sledge; don't remember of driving out a wood or iron plug from the bottom of the pipe after making a well (xQ. 44, 45, 50). His opinion is the well would fill with sand if he did so (xQ. 50, 51). If a tube had holes as small as the meshes in the wire it probably might work; in coarse sand he thinks it would work with holes much larger. After boring with the auger and withdrawing it it would not leave a hole in the water bearing stratum. In 1867 the wells they put down had the pipe closed by iron or wood; put down three to four that had slots; used the screens in all the rest (xQ. 52, 53, 54, 55, p. 1760). Those that had slots, the slots extended up about 15 inches the thickness of a thin case knife; we bought these points of Mr. Balcome, of Waterloo; they did not work well (xQ. 56, 57, 58). With an open ended tube as described in Green's patent, I would, as a practical well maker and one skilled in the art of making wells, know that it would be necessary to put a plug in the end of the pipe (xQ. 60). Did no forcing of pipe above the water bearing stratum; has had screens over the holes in the pipe break so that the well would not work (R.D.Q. 10, 13, p. 1763). This witness details at a very considerable length an experiment made with a box and pipe representing an open and a Driven Well, to which attention will be called elsewhere (D. Q. 32–39, xQ. 61–72).

Page 1769.—T. J. MARINUS *heard* of a well being made by driving a tube into the ground; he saw a well on the northwest corner of the block where the Presbyterian church now stands, Block 3 (D. Q. 4, 5, 7). The pipe, he thinks, was iron, but not certain, with a small pump attached; he pumped water from it and saw others do so; saw it there for three or four weeks; the pump was from two to three and a half feet above the ground, as he recollects; it was in 1861 (D.Q. 8, 9, 10, 11, 12, 13, p. 1770). Stopped at the well with some of the members of the Company E, 5th Iowa Infantry; left Independence about the first of July, 1861; it was within a week previous to the departure of the company (D. Q. 15, 17). There was another well put down on that block after that time; couldn't be positive as to the year; it was located somewhere near where the Presbyterian church stands, east of where the other well stands (D. Q. 19, 20). It was all open ground at that time (xQ. 4).

There was a shop on the opposite side of Main street; don't know what it was used for; recollects a blacksmith shop there at same time, is not positive it was not there at that time; don't know who made the well; it was a well with a pipe sticking out of the ground with a pump on it (xQ. 6–14).

Page 1772.—OLIVER MARQUETTE noticed what was called a driven well; it was an iron pipe driven in the ground with pump attached; thinks the pipe was even with the ground and pump attached to it; pipe one and a quarter or an inch and three-quarters—a half—it might have been two inches (D. Q. 5–8). It was near the northwest corner of Block 3, or in Centre street; couldn't tell the year exactly; thinks it was in 1860 or 1861, somewhere along there; so long ago he can scarcely remember;

has nothing to fix the date, except they were playing ball and it was hard times (D. Q. 12-15). It was just the time of Lee's enlisting his company, *if he remembers right* (D. Q. 21, 22, p. 1774).

Doesn't know who put down the well; says T. H. Tyson lived at the time on the northwest corner of Block 7; is well acquainted with the localities; it was a number of years after before he saw these wells in general use; his attention was first called to the date within the last year (xQ. 16, 17, 25, 29).

Page 1777.—STEPHEN M. MARQUETTE saw a well on the west side of the river south of Main street; from the looks it was a pipe driven in the ground with a pump attached; pumped water up; Thomas Tyson was with him; pump stood there nearly all Summer; it was on the northwest corner of the Presbyterian church block; thinks it was in 1860 or 1861 (D. Q. 7, 9-13). Himself and brother, after consulting together and talking the matter over, fixed the dates as he has given them (xQ. 6, p. 1778). Thinks the pump was taken off in the Winter *of 1860 and put back in the Spring of 1861* (xQ. 16). The next well was put down eight or ten rods east of the first one; it was put down for the purpose of getting water to build the church; heard of Driven Wells being put down between the times of the first and second well (R. D. Q. 5, p. 1781). Don't remember personally; can't remember just now; thinks that was all (RxQ. 1). Will swear he heard of a well in 1863, but *could not state or locate the places where* (RxQ. 7); all he remembers distinctly is about the first and second wells (RxQ. 12).

Page 1782.—W. H. H. MORSE heard of a Driven Well, his recollection is in 1860 or 1861; his recollection also is it was west of the Presbyterian church on the same block on or near the northwest corner of the block (D. Q. 4, 5). It was an iron pump on the top of the ground, as near as he can describe it; thinks Capt. Lee's company left Independence in 1861; he belonged to the band; went away with them and remained three or four days; don't remember whether he played cricket on the grounds after his return; his recollection is that it was before he went away; knows of another well put down on the Stout property since that time; don't remember the year (D.Q. 15, 16, 17, 18, 19, 20, 22, 23).

Doesn't remember whether his club played cricket in 1862 or not (xQ. 5, p. 1784). Thinks the second well was 7 or 8 years after he saw the first one; this was about the next one he remembers about (xQ. 8, 12). He sympathizes with the opposition to the Driven Well; has been sued; supposes he is interested in the event of the suit (xQ. 15, R.D.Q. 1, RxQ. 1).

Page 1786.—M. B. TIMS saw a well near the northwest corner of the Presbyterian church block; saw a pump, and that is all he knows of it; didn't see it put down; thinks it was an iron pipe; was said to be attached to an iron pipe; don't think he saw anything below the pump; saw a man there, but whether the one who put it down he could not say; don't remember that they said how it was put down; some one told him it was driven, but don't know who; it might have been there a month or a year; was there a number of days; saw it used two or three times; furnished plenty of water; has no memorandum of the dates, but he thinks it was in 1861 or 1862, to the best of his knowledge (D.Q. 6–13, 15–18).

Page 1787.—E. W. PURDY, the first well he saw was the well spoken of here; was on the Presbyterian church block, on the west part, said to be a Driven Well; didn't see it put down; had a common suction pump, and if his memory serves him, could see the tubing above the surface of the ground; don't remember how long the well remained there (D. Q. 21–25, 29, p. 1789); was engaged in the well business in Milwaukee in 1849 and 1850; used a common iron pump with lead pipe attached, which passed into the tubing of the well to the water; the pump was not attached to the pipe they forced into the ground; in all cases they used an inside pipe attached to the pump; a pump made by driving or for forcing a hollow tube into the ground and attaching a pump by an air tight connection to the top of the tube, is not the same as the wells he made; they were called Artesian wells from the fact that they would overflow (xQ. 1, 9–12, 14, R.D.Q. 3, p. 1791).

Page 1792.—J. J. TRAVIS heard of a Driven Well from ten to twenty rods west of where the Presbyterian church now stands; it was all common then; all he could see was a hollow iron tube with a pitcher-mouthed pump attached to it, something of that kind, about two feet from the ground to the bottom of the pump; thinks he saw it two or three times, but it is a good while to remember these things; it was in 1861, either in June or July (D. Q. 3, 5, 6, 7, 11–13). Was a different style of pump from what they used in our days; cannot remember how his attention came to be called to the well; thinks somebody, at the time he was there, told him how it was put down; don't remember who, but from what was said it was put down by driving; wells of that kind did not go into use directly, to his knowledge; remembers no other for eight to twelve years after (xQ. 1, 16–20).

There was a blacksmith shop directly opposite, on the corner of Block 22, if he remembers right, and a man by the name of Kays lived near the grounds on the same block; T. H. Tyson, to the best of his recollection, also lived on the corner of Block 22 (xQ. 26, 29, p. 1795).

Page 1917.—J. J. TRAVIS, being recalled, thinks that during the months of May, June or July, in 1866, he heard of a Driven Well put down on the west side of the river; don't remember who put it down; don't remember that he saw the well; when he head of it was several years after he saw the first well he testified of (D.Q.11–14, p. 1918). Couldn't say, positively, that it was in 1866 when he saw the last well, but thinks somewhere about that time; the way he heard of it was with his ears; don't claim to have seen any well, but to have heard it talked of xQ. 5, 6). The well of 1866 he did not care enough about to go and look at; heard about that time of Hovey's Driven Wells, but never went to see them (xQ. 15).

Page 1913.—STEPHEN M. MARQUETTE, being recalled and asked whether, at the time he testified of seeing the well on the northwest corner of Block 3, he was acquainted with J. R. Kays, he answered: "I don't remember whether I was acquainted with him or not at that time, but I think I was; I think he was working in the blacksmith shop in Walnut street, in 1861." He don't remember whether or not he had a blacksmith shop on the southwest corner of Block 22, in 1860 or 1861; there was an old house torn down before the shop was put up, but doesn't remember whether it was in 1860 or 1861 (D. Q. 2, 3). He heard of Chandler buying a right to put in Drive Wells in Minnesota; should think it was in the neighborhood of five years after he saw the well on Block 3; in the neighborhood of four to six years (D. Q. 7–9).

Page 1789.—EDWARD ROSS says there were no improvements on Block 3 when he first knew it; he built the first house on the block near it in 1861; the stonework was commenced in June, house finished in November (D. Q. 3–6). On the northwest corner of Block 3 noticed a well which was called a Drive Well or a pump; recollects nothing but the pump; it was attached to a pipe; that is about all he remembers about it; it was a new thing to him; couldn't say, but his *impression* is the pump and pipe were iron; *thinks* he pumped water and saw others use it (D. Q. 11–14). The way he *understood* it the pipe was driven in the ground; his *impression* is it was before he moved into the house on Block 3 (D. Q. 15, 16). *Thinks* Mr. Tyson lived directly east, and that there was a small wooden building on the southwest corner of Block 22, *couldn't be positive*, *thinks* the next block west was inclosed with a fence afterwards, but whether one or five years he couldn't say ; *has no recollection of seeing parties put the well down ; passed the place twice each day, perhaps more ;* his impression is the pump did not differ from other pumps used at that time; *has no recollection who told him it was a tube driven in the ground, nor how many persons he heard speak of it ;* is satisfied he got the idea at the time, but how he *couldn't say* (xQ. 8, 10, 12–19). Could not say how long the well remained there, thinks not a great while (xQ. 28). He says the first company for the war was organized that year, and there was no other company raised that year (xQ. 35, 37).

Page 1810.—DR. HORATIO BRYANT was the next witness examined, but his testimony has no connection with the Independence well ; he was called as an expert, and in regard to his testimony it is sufficient to say that he states that the force of 2 columns of water, the one 4 and the other 6 feet high, are relatively as 16 for the 4 feet column and 36 for the 6 feet column. He thus makes 6 feet head of water weigh two and a quarter times as much as 4 feet (D. Q. 8, 9).

If all his philosophy equals this statement, further comment is unnecessary.

Page 1812.—JOHN M. KING saw a well at Independence before he went into the 6th Iowa Cavalry, Co. G ; that attracted his attention by its construction ; it was west of the Presbyterian church, near where Stout now lives ; it was east and a little north of Stout's house; apparently there was a tube driven into the ground ; *thinks* he pumped and saw others pump ; went into the Cavalry in the Fall of 1862 ; saw this well on the 4th of July, either in 1861 or 1862 (D. Q. 5–12). Is well acquainted with the location of the land ; *cannot state positively how long* *the Presbyterian church had been built when he saw the well;* says the church stood east of the well and was of wood material; *believes* there were small dwelling houses just south of the well; his *impression* is there was a blacksmith shop across the street north of the well; remembers seeing the well but one time; these wells did not go into use right away after (xQ. 4, 5, 6, 13). Should think it was 5 or 6 rods from the well to the frame Presbyterian church (RxQ. 2).

Page 1815.—A. H. FONDA saw a well on Block 3, a pipe put in and a pump attached at the top of the ground; no hole except what the water washed outside of the pipe; pumped water and saw others pump; it was in the forepart of 1861 (D. Q. 3, 5-8). That kind of well did not go into general use; quite positive he saw it in 1861; thinks there was a black-ship shop directly north of the well across Main street at the time the well was made (xQ. 2, 7).

Page 1817.—T. J. MARINUS, being recalled, says cricket was not played *to his recollection* on Block 4 after the 5th Iowa Infantry left Independence. These blocks on the Stoughton and McClure Addition, he says, are 16 rods square; does not know that any other game of ball was played on Block 4 (D. Q. 6, 10, xQ. 9).

Page 1819.—J. M. GILLETT has a Dug Well about 20 feet deep, covered with boards (D. Q. 4).

Page 1831.—RACHEL KIMBALL heard some talk in regard to a new method of making a well; didn't hear anything as to how it was made (D. Q. 7, 8).

Page 1863.—MRS. E. PARKER, when living 3 miles out of Independence between 1859 and the Fall of 1861, heard of a well made by driving an iron tube into the ground; rode by the well a number of times, but didn't stop; her husband remarked that he had been to it and drank some of the water (D. Q. 3-7). As nearly as she can remember it was opposite where her house now is; lives where Mr. Kays' blacksmith shop was; the well was nearly opposite there on the south side of Main street; she thinks in 1861 (D. Q. 8, 9). Saw the well July 4th (D. Q. 16). Just rode by the well; that is all she knows about it (xQ. 10). Mr. West, counsel for complainants, called on her, she told him that she knew very little about the well; all she could remember was a well was there once; will not swear that she did not tell him that she could not remember any date or data by which she could determine when the well was there, but does not think she did (xQ. 20, 21). Says she gave the information she has given to-day to Col. Lake freely; the reason she would not give it to Mr. West was because she never says anything either way (xQ. 28, 29).

In REBUTTAL the following witnesses were examined and testimony taken:

Page 1874.—JOSEPH B. TURNER says Chandler and himself bought a patent together, a process of making a well for the territory of Minnesota. It was Chamberlain's patent, M. A., he thinks. Shown a certified copy of Chamberlain's patent, he says, the drawing and cut represent the thing exactly as near as he can recollect. He recollects only one of the parties, whose name, he thinks, was Charles Brown; saw Brown and others making a well about the time he purchased the patent (D. Q. 5-8, 10). They drove an iron tubing, the point, the end after striking water, they drew that tube, removed the iron plug putting in its place a wooden one, then putting a tube down again, then inserting a rod with knives and springs at the end and drawing up the tube a little ways, forcing the wooden plug out with these knives, making what was called a reservoir in the ground; after making a sufficient reservoir and pumping out the sand until they had clear water they withdrew their driving tube, putting down another tube a little smaller and putting a perforated tube, in length about two and a half feet, with a wire gauze screen inside of the perforations at the bottom, which completed the making of the well (D. Q. 10). The well was on the lot near where the Presbyterian church stands; it was in the Spring of 1866; cannot give the month or day (D. Q. 10-2).

Note.—This well made in 1866 covers the very plan Hovey patented in 1868 for clearing out the sand and then replacing the tube by another with a wire screen.

He then undertakes to say he saw a well of similar construction at Weedsport, Cayuga Co., N. Y., and also at Cortland, Cortland Co., N. Y. Says he should think it was all of five years before he saw this well made by Brown (D. Q. 14-16). Saw the wells at Weedsport and Cortland about the same time, as near as he can get at it (D. Q. 20).

Thinks C. T. Kimball was around there during the time the well was being made by Brown (xQ. 8). There were quite a number of persons present; it appeared to be a curiosity; thinks it gave a full supply of water; don't recollect of hearing of any other similar well having been put down in Independence prior to that time (xQ. 11-14).

Was shown a copy of the patent within a day or two of the time the well was made; he should say the drawing showed the same principle as the one shown him while on the stand, but not the same style of cut; couldn't say whether the knives or springs differed (xQ. 16-18). Does not know *who* made the well at Weedsport, and doesn't know *how* it was made; does not know what it was used for or for what purpose it was put in, and didn't hear who made the well (xQ. 30-33). Don't know the year he saw the Weedsport well; can't tell anything about it; never should have thought anything about it if this thing had not come up (xQ. 39).

Page 1879.—George Hovey, being re-examined on rebuttal, says, that Elias S. Hovey, John Ganiere, Martin Bust and B. C. Hale were with him when he first saw the well which he claims to have seen in 1861; that he did not get out of the wagon; some man that was there said it was a rod drove right down into the ground, or a tube with a pump attached to the top (xQ. 8–11, 13, 14). The man who told him it was a rod of iron drove down stood near the well; supposed the well was completed when he saw it (xQ. 17, 22). He thinks it was in the months of July, August, or September (xQ. 28). All he knows about the construction of the well was *what somebody told him* (xQ. 34). He says it was called a Driven Well at that time (xQ. 35). Note, the term Driven Well was not applied for years afterwards even at Cortland. Heard a paper read having a description of a well put down in 1868 in Col. Lake's office (xQ. 39, 40). Don't know the name of the paper, but it said that a well was put down in 1866, and said it was an iron well; that is all he heard about it in the newspapers (xQ. 41). When asked if it was named a Driven Well, he answered, it was stated that it was made by driving a tube into the ground, don't know that there was any name given to it (R. D. Q. 1, 2).

Page 1885.—**George Mann** saw, while Block 4 was used for playing cricket, a pipe sticking out and a handle out of it; he was fool enough to get hold of it and thought he could pump it dry; he knows that very well; couldn't tell how long he pumped; never told Mr. Kays anything at all about it; he married Kays' sister (D. Q. 7–12). Couldn't tell who put down the well, who owned it or who had charge of it; don't know whether it attracted a great deal of attention (xQ. 18, 21). Doesn't know how the well was made (xQ. 25). Hovey commenced asking me about the well, and I told him I didn't know when it was, didn't know the year, didn't know that it was a Drive Well; says he knows a pipe stuck out of the ground; *believes* it was called a Drive Well (xQ. 26, 27, 29). The next well he saw was at the Presbyterian church; don't recollect how long the first well remained; the second they used the pump to build the church; those were the only two wells he ever saw in the block (xQ. 31, 35, 36, 38). He says Kays built his blacksmith shop on Block 22 five or six years after he (Mann) came to Independence in 1859; never had any conversation with Kays in reference to a well made of iron (xQ. 39, 40). Couldn't tell what year it was at all that he saw the well; didn't see a similar well right opposite to Kays' shop after he came to Independence (xQ. 50, R. D. Q. 3).

Page 1890.—THOMAS SHERWOOD, during the time he lived across the street from the hotel barn, remembered hearing of a well being put down on the west side of the river; didn't see the men at the time the well was put down; didn't see their apparatus to his *recollection* (D. Q. 7, 9, 10, 11). He saw this well, but never examined it particularly; it was five or six rods south of the former well, that is his recollection (D. Q. 16). Knows Charles Brown; doesn't recollect seeing him in Independence about that time (D. Q. 18, 19). The small wooden house he thinks was there on Block 3, and the well stood east of the house; can't tell the year; *thinks* it was 1865 or 1866; couldn't swear that it wasn't in 1867 or 1866 (xQ. 4–6).

Page 1895.—JOSIAH BRACE says in 1861 he resided in a little brick house on Block 22 (D. Q. 2). Mr. Trexler lived in the house adjoining on the west (D. Q. 3). He moved into the brick house in the Spring of 1861, and resided there a year (D. Q. 4). Says he saw a well on the block south of where he lived; it was an iron pipe driven in the ground (D. Q. 13, 14); he got water there for use in the family (D. Q. 15, 16); the well was on the northwest corner of the block opposite on the south to the house he lived in, on the Presbyterian church block; doesn't know how far from the northwest corner; might have been one or two rods (xQ. 4, 5, 6, 7); was not 20 rods (xQ. 8). The well was on the north end of the northwest corner lot within the stakes; the lot was 4x8 rods (xQ. 9, 10). He lived in the brick house in 1861, and saw the well in 1861 ; didn't see the well made nor any part of it ; don't know who made it ; who owned it, who owned the lot upon which it stood nor who the lot belonged to, nor who had charge or control of the well ; couldn't tell how long it remained there, but a number of weeks ; says it was put down to introduce it to the public ; if he saw the parties who constructed or owned it or heard their names, he doesn't remember. Asked when the well was made, he says, "I have answered already that I didn't see it put down." Thinks it was the first of May or the latter part of April ; doesn't know whether the well was there when he moved into the little brick house or not ; might have been there three or four weeks after he moved in ; thinks there was no platform ; saw no spout or trough for carrying water away and watering stock ; the pump was iron with a pitcher spout ; don't remember the name that was given to the well (xQ. 11, 12, 27).

In answer to xQ. 49, he says he moved out of a wooden house on Block 27, in the Fall, can't give the year ; and in answer to xQ. 50 says that he moved into the basement of the brick house, to the best of his recollection it was somewhere about 1859, and when asked if his best recollection was that he moved into the house in the Fall of 1859 and moved out in the Spring of 1860, answered, "I can't tell decidedly, it is my best recollection." (xQ. 49, 54, 56).

He says when he moved out of the basement of the brick house he moved in a house on River street, and spent that year in two houses. He doesn't know as he has seen a similar well on that block since (xQ. 61, 85).

Page 1,905.—D. S. DEERING says he resides on Lot 1, Block 7 ; knows Kays the blacksmith ; doesn't know when he came to Independence ; his blacksmith shop when he did come was on Lot 5, Block 22, Stoughton and McClure's Second Addition (D. Q. 12–15). Says the Presbyterian church was built in 1868 (D. Q. 191). At that time he saw a pump and an iron tube a few rods from the church ; don't know whether it was driven or how it was put down ; says there was a Driven Well on the same block in the Summer of 1862, near the west side of the block, to the best of his recollection a little north of the center of the block, might have been a rod way from the west line, maybe two ; saw the parties when they were putting down the pump ; was not there all the while, but as he went back and forth saw them driving the iron tube into the ground, they put a pump on the top of it (D. Q. 20–23). Couldn't tell for certain what month it was, thinks July or August ; it was probably from 10 to 12 rods from his house ; has no recollection of seeing any similar well between the times of seeing these two wells in 1862 and 1868 ; has no recollection of any well being driven on Block 3 in 1866 during the months of May, June and July, 1866 ; he was at and about his home during the time, but has no present recollection of any such thing ; can't tell what he saw or heard at that time (D. Q. 24–30). He was acquainted with J. M. Chandler, in 1866; has no recollection of Chandler and J. B. Turner purchasing any Drive Well territory (D. Q. 31, 32). He thinks the southeast corner of Block 3 was improved when he saw the well ; thinks there was a building on the corner of Block 22, but can't tell whether it was occupied as a blacksmith shop ; says the well on Block 3, in 1862, attracted a good deal of attention, saw a good many people around there trying it ; his present recollection is that he didn't hear of another similar well having been put down there before ; for *he* considered it something entirely new and valuable, if practicable (xQ. 9–12). Says he can't be mistaken about its being after he moved on to Lot 1, Block 7 ; has no doubt at all on the subject that it was in 1862.

Page 1,909.—LEITNER S. STROMAN says he knew Baxter Adams in his lifetime (D. Q. 4) ; he was elected roadmaster in 1860, and he (Stroman) worked for him at different times ; while at work for him he saw a well on the west side of the river that was peculiar in its construction ; it was a small-sized well or pump, not very high up, set on a plank that was about 3 feet by 4, with a trough under it where we used to pump water in to water horses (D. Q. 4-9).

There was a metal tube below the pump ; didn't see it put in the ground, and can't say how it was put down ; never had any conversation about it ; they told me it was a well without any digging (D. Q. 10-12). The well did not remain where he first saw it, it was moved about a rod east and south ; he couldn't see the portion of the tube that was said to be in the ground, a short piece two or three feet long (D. Q. 14-16). When asked whether this part that he saw stuck up above the ground; he answered, "It was in the blacksmith shop and I saw it ; I saw it after it was cut off" (D. Q. 17). Being then told by Mr. Lake that the question he asked was if he could see any part of this tube that was put into the ground, that what he meant was whether the tube that he (Stroman) saw stuck up above the ground so that he could see it, his answer was: "No" (D. Q. 18). "It was all covered up with the exception of the pump" (D. Q. 19). On cross-examination he says he saw the well for about a month, three weeks or a month ; it was the latter part of May or the first of June (xQ. 11, 12). Says there was nothing particular going on on either of the blocks adjoining where they were at work during the time he worked there (xQ. 13). It was 6 or 10 days after he first saw the well before it was moved off the block ; it was the block on which the Presbyterian church now stands ; the blacksmith shop was north of the corner directly north from the corner where this well was (xQ. 14-17). After it was moved it stood in the northwest corner of the Presbyterian church block ; the blacksmith shop was on the north side of Main street, opposite where the well stood ; he went to the shop "for a crow-bar to move a stone, I asked what that was, and he said it was a piece of the tube of a Drive Well, and that is the first I knew of a Drive Well" (xQ. 21). Says it was Mr. Kays's blacksmith shop; didn't know what his first name was (xQ. 22). After the well had been moved it had the same appearance as to platform and trough that it had before it was moved (xQ. 23). At the time he saw the well Mr. Kays was occupying the blacksmith shop he has spoken of (R. D. Q. 1). Asked to state how long he occupied it, he says: "I do not know how long." Being urged by counsel for defense to state as near as he could, he answered: "Four weeks anyhow, and that is all I know about it" (R. D. Q. 2, 3).

Page 1920.—A. H. TRASK says H. S. Cole, in 1866, was with a man by the name of Charley Brown; he drove, or had wells drove, in Independence; there were three of them, the others he don't remember; Brown hired a team of him to go to Vinton, in July, 1866 (D. Q. 12–15). Being asked if they did not drive a well on the Presbyterian church block after that, he answered he did not know, but he saw them put down a well in the Fargo woodshed; went over and saw them drive and make it (D. Q. 16). There was a well that season on the Presbyterian church block; he saw it a great many times, but don't know who put it down; saw it there that season after Brown had his team to go to Vinton (D. Q. 17, 18). Referring to his book he stated that the team was hired July 5th.

Page 1921.—SAMUEL NAYLOR is acquainted with a block of land where the Presbyterian church now stands (D. Q. 4). Saw a well on the block, what part he cannot say, thinks a little west of the church; it was a pipe drove in the ground and a pump to it; can't tell how much pipe stuck above the ground; probably four or five inches, along there; at the time he saw the well it was said to be a pipe driven in the ground; it was in 1861 he saw it, in May or June, can't tell the month (D. Q. 4–14). Says he worked on an elevator, which was burned. Being asked the date of the burning he said he would have to guess at it; as near as he can recollect it was in 1868 or 1870; will not swear it was not in the Fall of 1864 (xQ. 13, 14). He *supposed* the well was a pipe driven into the ground, *was told so* (xQ. 15).

Has forgotten the man's name; doesn't know if he had charge of the well, or who made it; doesn't remember that he ever heard who made it, or whether he ever heard their names; don't know where they were from, where they went when they left, or how long the well remained there (xQ. 18–24). Being asked if it might not have been made in another way and present the same appearance, he said it might (xQ. 25). He forgets who was with him; can't tell how many persons; remembers seeing the well but once; don't know how long it remained; don't remember that any one explained to him why it was there; if such an explanation had been made he probably would remember it (xQ. 26–31). Thinks there was a blacksmith shop on the southwest corner of Block 22, directly north of where he saw the well, but would not be positive (xQ. 33). There was a small building on Block 3 or 4 at the time; don't remember whether Block 4 was fenced or not, or whether the streets were worked; don't remember when the Presbyterian church was built (xQ. 34–39). The well might have been just where the church now stands; as near as he can recollect, it was two or three rods west (xQ. 40). Didn't see any more similar wells for several years (xQ. 46).

While a majority of the host of witnesses who have testified with more or less emphasis to *having seen a well* on or near the northwest corner of Block 3, in 1861, *which they heard* was a Driven Well, fix its date by reference to the drilling of a military company which had enlisted for the war, and a cricket club playing on the adjoining block (4) at that time, it is worthy of special

NOTE that but *one* of the *eight* parties who testified either to having seen a well made, or to driving being done in 1861, '62 or '63, have referred to the presence of any military company on Block 4 during that driving, or the time when that well was there in existence, and that *one was Jed Lake's crony*, who resided half a mile away, and who will be conclusively shown by his own testimony to have described a well made years afterward, and *two only* refer to cricket playing.

To wit:

Campbell, who in answer to a leading question, "If at any time when he saw parties playing cricket there, he saw a well that attracted his attention?" replied, "*According to my best recollection, I did*" (page 1822, D. Q. 10.)

And **Allen**, who was specially recalled for the purpose, stated that members of the cricket club got water at the well (Allen's Recall, D. Q. 6), and he was not positive the well was not put down in the Spring of 1863 (xQ. 30, p. 1806).

Of these, **Tyson** lived on Block 2, adjoining the block where the well was (xQ. 8, page 1713).

Allen lived on Block 7 (D. Q. 3, page 1803), which corners on Block 3, and is directly opposite, across the street from Block 4, where the military company drilled and the game of cricket was played.

Trexler lived on Block 22, across the street from Block 3, and cornering on Block 4.

Dr. Warne lived on Block 24, only across one block from the well.

A. F. **Williams** lived on the west side of the river, and passed right by where the well was a great many times (D. Q. 6, 16).

And there were no buildings or fences on these blocks to obstruct the view, either from the streets or the residences of the witnesses. (Trexler, page 1725, D. Q. 19.) (Dr. Warne, page 1657, D. Q. 39, 40.) (A. F. Williams, page 1709, xQ. 16.), Campbell (page 1824, xQ. 12.)

Seven of these eight witnesses, *who alone pretend to know anything of the making of the well*, instead of referring to these organizations in corroboration of the dates they give, on the contrary do not even agree as to the year in which it was made, although varying so far as the month of the year was concerned, only 3 months.

TYSON'S *impression* was it was in 1861.

ALLEN says in 1861 or 1862, and is *not positive it was not in 1863.*

Kimball, April, 1861.

MCEWEN, between the 15th of April and 1st of June, 1861.

TREXLER, fore part of May, 1861.

Dr. WARNE says May or June, 1860 or 1861?

WILLIAMS says can fix no date, but thinks it was the last of May or first of June, 1861.

CAMPBELL, that "according to his best recollection" it was while the club was playing cricket?

As the gist of this entire testimony consists in fixing the date, we respectfully submit that this evidence, which includes that of every witness who professes to have any actual knowledge, given some twenty years after the pretended occurrence, even if otherwise uncontradicted, is not such as carries conviction, and as would establish *beyond reasonable doubt*, the making of a Driven Well antedating Green's invention *by less than six months*, if the *impressions*, *best recollections*, *and thinking* of a *majority even*, *is admitted as agreeing* upon *any* date.

In addition to these discrepancies we next proceed to review the testimony of the different witnesses produced by defense, who knew nothing of the character of the well testified of, which, for all any one of them *knew*, might have been a dug and stoned well, or even nothing but a cistern, and whose testimony at most, could but prove *a date* when they claim to have seen *some kind* of a well *somewhere on or near* Block 3. We call the especial attention of the Court to the various contradictions of themselves and each other made in their endeavors to bolster the efforts of defense in antedating Green's invention.

It having been proved and conceded that a temporary Driven Well was at one time made and remained a short time near the corner of Block 3, Stoughton and McClure's Second Addition to Independence, and another afterwards, near the Presbyterian church, which was built on the same block in 1868 ; also that the Summer of 1861 no buildings, fences or other improvements were upon Block 3, or on Block 4, next west of it, and that Block 4 was used as a cricket and ball ground, and for drilling soldiers upon, two companies were claimed to have been raised at Independence during the year 1861. But defendant's witness, Ross, says only one company was raised in 1661.

We proceed to dissect and compare the testimony of defendant's witnesses on this subject of dates.

GEORGE HOVEY, the defendant, thinks the first well was made in 1861 or 1862 ; says the nearest building was a *blacksmith shop* across the street ; the next well he remembers was on the same block, in the Fall of 1867 :

ELIAS S. HOVEY, defendant's brother, says it was June or July, 1861.

PERRY MUNSON is not positive as to the year, thinks it was in the Fall or the last of the Summer of 1861 or 1862 ; saw another well in the Summer of 1866 on the same block.

B. C. HALE says it was in 1861 ; says there was a a building on the north side of Main street used as a *blacksmith shop :*

Thomas Sherwood says it was in April or May, 1860 or 1861; and on recall says he heard of a Driven Well on the west side of the river, six rods south of the first well, and east of a wooden house on Block 3; thinks it was in 1865 or '66 might be '67 or '68:

C. B. Kandy thinks it was in 1860:

H. A. King says in May, 1861:

Frank S. Trask, as near as he can recollect, says it was the first week in May, 1861:

John A. Davis says in July 1861:

A. J. Francis says June, 1861:

T. J. Marinus, as he recollects, says it was about the first of July, 1861:

Oliver Marquette thinks it was in 1860 or '61; couldn't tell the year:

Stephen Marquette, his brother, thinks it was in 1860 or '61; thinks it was driven in 1860, the pump taken off and put back in 1861; talked with his brother, and fixes the dates; on recall he says it was in 1861 or 1862, and *that Kays was working in his blacksmith shop;* he was acquainted with him then:

W. H. H. Morse says his recollection is it was in 1860 or '61.

W. B. Tims thinks it was in 1861 or '62.

E. W. Purdy, a professional well driver, can give no date.

J. J. Travis says it is a good while to remember these things, but it was either in June or July, 1861. There was a *blacksmith shop directly opposite, if he remembers right, and a man by the name of Kays lived there, and that T. H. Tyson lived on block* 22; that in July, 1866, he heard of a Driven

Well on the west side of the river; didn't see it.—(In 1861 Tyson lived on S. W. corner of block 2.)

Edward Ross thinks he saw the well before he built on Block 3 in the summer of 1861; thinks Tyson lived directly east; says the first company from Independence for the war was organized that year, and no other company was raised that year.

John M. King says it was the 4th of July, 1861 or '62, he saw a well 5 or 6 rods from the frame church; there was a *blacksmith shop* across the street north of the well, and a small dwelling house on the block south of the well.

C. H. Fonda says it was in the fore part of 1861; thinks there was a *blacksmith shop* directly north of the well across Main street.

Mrs. E. Parkfr thinks it was July 4, 1861, opposite where she now lives on Main street; that she *saw a well* as she was riding by, which is all she knows about it.

Joseph B. Turner saw a well on that block in the spring of 1866; it was Chamberlain's patent; Charles Brown was one of the parties who made the well, and thinks *C. T. Kimball* was around when the well was being made; it appeared to be a curiosity; he describes the knives and springs, wooden plug, etc., as used by Chamberlain.

George Mann, a brother-in-law of the blacksmith Kays, saw the well on Block 3; don't know when it was; don't know the year; don't know it was a Drive Well, and so told Hovey; says *Kays's blacksmith shop* on Block 22 opposite the well, *was built five or six years after* 1859; saw another well on the block when they were building the Presbyterian church.

Josiah Brace *saw a well* in 1861, while he was living across the way in a little brick house, into which he moved in the Spring of 1860; on cross-examination he said he moved into the house in 1859;

being pressed in regard to the dates, said *he could not tell decidedly.*

D. S. Deering lives on Lot 1, Block 7, which corners on Block 3, since April 1st, 1862; *saw a pump and iron tube* on the Presbyterian church block in the Summer of 1862; it was a rod or two from the west side of the block, a little north of the center, a rod or two from the west line; saw the men putting down an iron tube and a pump on top; it was 10 or 12 rods from his house; thinks it was in July or August; saw no similar well until at the Presbyterian church block in 1868; the southeast corner of the block was improved, and the well in '62 attracted a great deal of attention; *didn't hear of any other being put down there before; he considered it entirely new;* he cannot be mistaken about its being after he moved on to Lot 1, Block 7, April 1st, 1862.

L. S. Stroman says while working for roadmaster Baxter Adams, in May or June, 1860, he saw the well on the Presbyterian Church block; *Kays's blacksmith shop* was directly north on the north side of Main street, opposite where the well stood; saw a portion of the tube in Kays's blacksmith shop, which had been cut off from the tube driven in the ground; it was a small sized pump, not very high up, on a plank about 3 feet by 4, with a trough under it for watering horses; it was moved about a rod east and south of where he first saw it; after being moved had the same appearance.

A. H. Trask hired a team to Charley Brown in July 1866; there was a well that season on the Presbyterian church block; Brown put one in Fargo's woodshed, which he saw after July, 1866.

Samuel Naylor *saw a well* on Block 3, where the Presbyterian church stands; *a pipe in the ground* and pump attached, in May or June, 1861.

Nine of these witnesses describe the pump as standing from one foot to four feet above the ground, and no curb around it:

Morse says pump set *on* the *ground.*

Francis, that it *set on the grass.*

Hale, that it stood on the platform.

Naylor says he could see four or five inches of pipe under the pump above the ground.

George Hovey says it was in a *grass plot*, *grass under the pump.*

Elias S. Hovey saw *no grass*, but sand scattered about and trodden on.

Munson saw *nothing but earth.*

Stroman says the pump stood on a platform, a spout and a trough under it for watering horses.

Brace says there was *no platform*, *no spout*, no *trough.*

Ross says, only one military company was raised in Independence in 1861.

Jed Lake proves that there were at least two.

Ross says there was a wooden building on Block 3.

Others agree there were no buildings on it in 1861.

Mann, whose evidence is uncontradicted, says the *blacksmith shop* was not there until five or six years after 1859, while six witnesses, who date the well respectively, as in 1860, '61, and '62, testify of the shop being there at the time the well was made.

These variations in the descriptions and surroundings are undoubtedly mainly due to the witnesses having confounded their dim recollections of other wells, seen during the past fifteen years, with this first driven well ever put down in Independence, which, as we shall conclusively show was in the Spring of 1866, and three of these very witnesses, Joseph B. Turner, A. H. Trask and J. J. Travis, have testified concerning it as at that date.

Summing up this *date* question, we find the twenty-eight witnesses called specially to establish it prove as unsatisfactory as did the eight parties who testified of seeing the well while being made.

One says it was in 1860;
One *thinks* it was in 1860;
Two say it was in 1860 *or* 1861;
Two *think* it was in 1860 *or* 1861;
Nine say it was in 1861;
Three *think* it was in 1861;
Five think it was in 1861 or 1862;
One is *positive* it was in 1862, and cannot be mistaken;
One gives no date;
One does not know the year; and
Two, Turner and A. H. Trask, saw a well there in 1866, and Travis heard of it.

Having disposed of these secondary witnesses we now proceed to review the most important testimony introduced by defense in relation to this Independence well; testimony which exposed the thread that enabled us to unravel the inconsistencies and reconstruct the fabric in a reasonable and understandable form.

Reviewing the testimony of Dr. George Warne, T. C. Kimball, and Samuel P. McEwen in connection with that of Joseph B. Turner, it will be seen that the point blank contradiction between Warne and Kimball and McEwen can only be reconciled by admitting an error in dates, the main points of the testimony to be referred to, showing that each and all are testifying about one and the same thing, to wit:

The Process of Making Wells Patented by Melvin Chamberlain, in January, 1866.

C. T. **Kimball** made an affidavit for defendant, Dec. 30th, 1878 (Defendant's Exhibit D), which, however, was not introduced until the time of his recall; another for complainants, May 24th, 1879 (Complainants' Exhibit A, No. 6), was examined on the part of defendant, April, 1880; recalled and again examined on the part of defendant, April, 1881.

In the first deposition he says he was keeping the White House, now the Merchants' Hotel, in company with Sherwood. A gentleman stopping there took him in the basement of the hotel and showed him a box containing *galvanized iron tubing* in pieces 3 feet long, sharp point that screwed on, etc. (D.Q. 11, p. 1834). Next day he got sledges or mauls and drove down several feet. "I went back to the hotel before he completed it." Went over next day and saw them get water; was on the northeast corner of Block 4, or in the street east of that block; top of the pump was 3 or 4 feet from the ground; thinks John Fargo, Tyson and Trexler were present when the well was made; pipe had a solid blunt point, and pipe was *plain black iron* (xQ. 60, p. 1840).

T. H. Tyson *was* there. Knew of another well put down near the same place; did not see it put down; it was two or three years after the first one; saw one well made; did not see any portion of the other made; don't know how the second well was made; it was on the northwest corner of the church block; thinks he saw it in Summer of 1863, is positive after Fall of 1861; tube stood up from the ground 16 or 18 inches.

On his recall, says he never saw any pump material in basement of the hotel while Burr kept it, *as he remembers*. Never saw Chas. Brown and John West at that hotel having charge of material for making wells. Don't remember a well on west side of river of which Chandler and Turner purchased the right for Minnesota. Is quite sure he saw the *second* well before 1866, but *will not swear* he did. Thinks it four or five or six rods east of first well; might have been on northwest corner of the block (3) on the northwest corner lot. "*Regarded it as quite a novelty.*" Why, if he had seen one years previously, he does not tell us.

There was only one man with the party who showed him the point; *thinks* he was alone. *Did not say he had any patent on the invention.* He spoke and explained he had a process to bore out and make a reservoir, and *thinks* he said he came from New York. It might have been the party told him he had a patent at the time; his recollection is he did not, *is not positive.* Being shown his affidavit made previously in relation to its being a patent, said it had reference to a reservoir and *not* the well. *The mode of making* the reservoir, the party claimed, was patented, which he referred to in his affidavit. The first well was *driven twelve to fifeeen feet;* does *not think it was twenty-two feet;* is quite sure it was not driven twenty-two feet. He interested me in boring a hole in the ground through the pipe, and explained the mode of doing so (xQ. 149). Thinks T. H. Tyson was there and Dr. Warne came there. "I know nothing about the reservoir except what the man told me" (R. D. Q. 1). "I know nothing about how deep the well was, except what the man said;" thinks it was fifteen or sixteen feet.

In his affidavit made for defendant December 30, 1878 (Defendant's Exhibit A), he says the hotel he kept in Spring of 1861 was then called the Revere House, now Merchants' Hotel. Before he went out of that house, in May, 1861, he saw this well material and the first well made. The man got a maul and drove the pipe into the ground, screwing on additional pieces of pipe and driving down until he said the pipe was down some *twenty-two feet.* The last piece was thirteen inches above the ground, no curbing around it; told Tom Sherwood about it. Also talked with Jed Lake about it. Do not know the name of the man who drove the pipe.

"This man told me there was a *patent* on a "well made by driving a pipe into the earth "and inserting into that a machine that folded "and opened on the principle that an um- "brella opened and folded, that the ribs of the ma-

"chine were steel knives and when below the pipe "could be opened and turned around and cut out a "reservoir as large as a barrel, and this dirt could "be pumped out with a sand pump; but this man "claimed that in sandy or gravelly soil he could "make a well without cutting out the earth; that "the gravel and sand were a sufficient reservoir; "we tried it where I described and succeeded in "making a well; it was a success; I am sure this "was early in the Spring of 1861, from the circum- "stances above stated."

KIMBALL, in his affidavit of May 24, 1879 (Complainant's Exhibit A, No. 6), says, that he

"Saw *the* Drive Well on the northwest corner of "the block on which the Presbyterian church is "now located and on the northwest corner of the "north corner lot; *said well was made* by driving "down an iron tube and screwing on the top of "said tube an iron pitcher pump. I pumped "water out of the same at that time; *it was a* "*great curiosity;* I think I saw this well above "described in the Summer of 1863; I am positive it "was after the Fall of 1861; the tube on which the "pump was screwed stood up from the ground "about 16 or 18 inches; the well was driven from "the top of the ground."

Note.—In passing we call attention:

1st. To some of Kimball's own contradictions of himself. He commences his affidavit of Dec. 30, 1878, by stating that from the Fall of 1860 to Spring 1861 he kept a hotel in partnership with Thos. Sherwood, *then known as the Revere House*, now known as the Merchants' Hotel. In his original *deposition* he says he was in partnership with Sherwood 6 months in the years of '60 and '61, keeping *what was then known as White's Hotel.* He describes the tubing as shown him in the basement of the hotel as of *galvanized iron*, but when taken across the river to be driven and he went with it, it was *plain black pipe*. In his first *depo-*

sition he insisted that the well was *put 12 to 15 feet deep* and quite sure it was not 22 feet, but only knew what the *man said;* in his *affidavit* he says they drove the pipe until the *man said* it was down 22 feet, and was 18 inches above the ground. The whole thing, pump and pipe, stood about 30 inches above the ground and no curbing; in his first deposition he says it stood 3 or 4 feet above the ground, in his second deposition, the pipe was 16 or 18 inches above the ground. In his first affidavit he says the man told him there *was a patent* on the well; in his second deposition, after unequivocally saying that the man *did not say he had any patent* on the invention, he says, he *might* have said so, but his best recollection is, he did not; then being confronted with his affidavit (offered too by defendant's counsel), he tried to explain that the patent he referred to was on the reservoir, and not on the well, but his language in the affidavit is on a well made by driving a pipe, etc.

And finally, in his first affidavit and in his depositions, he puts the date of the well as April or May, 1861, while in his second affidavit he saw *the* Drive Well made on the northwest corner of the Presbyterian church block, he thinks in the Summer of 1863; is positive it was after the Fall of 1861.

He also refers to the *blacksmith shop* as being there when the well was made, or very soon after (xQ. 124).

Dr. Warne, in his first deposition, says the well was made in May or June, 1860 or '61, "and was constructed substantially according to Green's patent" (xQ. 20), but he also said he knew nothing about the construction of the well (xQ. 14), and in his second deposition on recall, adds that he *did not afterwards hear* how they made it (Rebuttal, D. Q. 19, 20. p. 1870).

After calling the Court's attention to the witness's answer to (xQ. 1–6, p. 1650) in his first deposition, where he says Green's patent is perfectly unpracticable, and with this preface to establish the character of the witness, we will compare his testimony with Kimball's.

WARNE, in his first deposition (p. 1652), says Kimball was present at the making of the '61 well as Kimball also says Warne came there. He testifies to seeing a second well in 1865 or '66 near where this one was.

On his second recall (p. 1868), he testifies in regard to the second well which he saw in 1865 or '66 as follows: The second well a man had a tube nearly into the ground when he first saw it; when down as far as he wanted it he put inside the tube a rod with two springs in the bottom springing outward from the center of the pipe. "He sprung the springs together, placed it inside the well tube and chucked it up and down 2 or 3 times as he said to drive a wooden plug out of the bottom of the pipe; then put on to the inside rod a handle similar to an augur handle and turned it round and round and back and forth, crowding it downwards, as he claimed to stir up the water and sand and gravel so that he could pump out the fine sand; after turning it round to his satisfaction he commenced to draw the inside rod out and kept turning it round until he got the springs back into the pipe, then he withdrew the rod from the pipe, put on a pump and proceeded to pump roily water and sand,—that is all I saw of that operation" (D. Q. 4). Did not see the same springs used at the first well or elsewhere (D. Q. 10). Known only by common report that Charles Brown did put down this second well (D. Q. 12). Chandler and Turner said they bought from said Brown the right of Minnesota (D. Q. 13). Chamberlain's patent shown him, and he says the knives shown at the bottom of the design do not represent the springs as he saw them in use in making the second well (D. Q. 14). To his best impression there was no one at the making of the first well but the two persons driving the well (D. Q. 22).

The second well was some 25 feet from the street line of the northwest lot, and 20 or 25 feet from the west line. John E. Trexler occupied one of the houses on block 22; does not think the putting in of the second well attracted the attention of the citizens to any extent.

THE NEWSPAPERS SAY DIFFERENT.

SAMUEL P. MCEWEN (p. 1764), Jed Lake's crony, as he styles himself, thinks there was a small house on Block 3 (now occupied by Goodwin), on the lot next east of the well; thinks the Ross house now occupied by Mr. Pond, was on the block then; thinks there were no buildings on block 22. Several wells of the same kind were put down the next year; does not remember the name of the firm who put the well down; one of them was called Charley; they were Eastern men stopping here at the White House; saw the well made; there was a wooden plug stuck in the bottom of the tube.

They called it an experimental well; there were no boards, box or platform; thinks there *was a blacksmith shop opposite*; blacksmith named Kays.

TYSON says there were two men, were all he saw; they were young men, one of them a tall man; his recollection is they were from New York, what part he could not say; they stopped at White's Hotel.

KANDY says two men had charge of the well and were stopping at the Merchants' Hotel.

CAMPBELL says there were two or three strangers.

KIMBALL says the point was solid iron.

MCEWEN says it was a wooden plug.

TYSON says a wooden plug which they drove out.

TREXLER says they tied a point in.

WARNE says second well had a wooden plug.

The fact that Kimball, never having seen but one well, having seen Dr. Warne at that well, and Dr.

Warne having also seen Kimball there, fixes the status of that particular well.

Now, **KIMBALL** says that the party who made that well told him he had a patent on the well made by driving a tube into the ground and cutting out a reservoir at the bottom of the well with a machine consisting of knives and springs opening like an umbrella.

Dr. **WARNE** describes a similar machine as having been used at the second well he describes, which he says was put down in 1865 or 1866, but that it was not used at the first well.

MCEWEN says that the 1861 well was made by a firm of Eastern men who stopped at the White house; that one of them was called Charley; that at the time there was a *blacksmith shop* opposite the well, kept by a man named Kays; that a wooden plug was stuck in the bottom of the tube.

TYSON says there were two men who stopped at White's hotel.

KANDY says there were two men stopping at the Merchants' Hotel, which is the same house.

CAMPBELL says there were two or three strangers.

DR. WARNE testifies of the second well that they had a wooden plug, and that the men stopped at White's Hotel; he describes a similar machine as being used at that well.

It becomes evident from these circumstances, if these witnesses are to be believed, that the men they all describe as being two or three in number (except Kimball, who speaks of but one) that they were Eastern men stopping at White's Hotel, now known as the Merchants'; that all the evidence with one and the same well, and that Dr. Warne's description of the machinery for making the reservoir used at what he calls the second well, was the same that Kimball saw and described as being used at the first well; this 1866 well, as will hereafter be positively shown, was made by men from New York, who stopped at White's Hotel, and were working under a patent granted to Melvin Chamberlain, in January, 1866, which patent was for tools, springs, etc., as described by Kimball and Warne, and which it is evident was the identical material that Kimball saw and was described to him by the parties whom he cannot name, and that the error in his testimony is in the date. That his description does apply to the same well is corroborated by Tyson, Kandy and McEwen, who all say that there was a wooden plug, which some of them say was to be knocked out after the pipe was put down. McEwen and some half a dozen others, including the defendant, George Hovey, have testified with more or less positiveness that Kays's *blacksmith shop* stood opposite the well, across Main street, at the time it was made; and Mann has testified that that shop was not there in existence before 1864 or 1865; others have testified that there were one or two buildings upon Block 3 at the time the well was made, and defendants have thoroughly established the fact that no buildings were upon the block in the Spring of 1861; so that there is no difficulty, from the testimony of defendant's witnesses alone, in not only casting the gravest doubts upon the statements that such a well was made in 1861, or even 1862 or '63, but all the evidence taken in connection, of itself proves incontestably that the first well made upon that block was the one made as McEwen says, by the firm of Eastern men, one of whom was called Charley, in the spring of 1866, *after Kay's blacksmith shop* was there in existence.

First.—No patent has been shown to have existed upon a Driven Well in 1861, or at any time previous to December, 1864, and as a matter of common intelligence, and by the records of the Patent Office, no such patent existed until that time, and the apparatus as described by Kimball and Dr. Warne was patented in January, 1866, as shown by Defendant's Exhibit "Chamberlain Patent." That such a well existed in Independence in the Spring of 1861, creating, as all the witnesses say, much curiosity, and drawing crowds of people to see the great novelty of a man drawing water direct from the dry earth, is not shown to have been noticed in the newspapers of the place, in which there were two or three then in existence, nor after diligent search has it been possible to find in any newspaper of 1861 any description, mention, or hint of any such thing being then in existence, a fact totally inconsistent with the claim that any such well was there at that time. While some of the witnesses have testified to seeing a Driven Well a year or two later, and McEwen that they went into extensive use the next year or within two years after, this is of itself evidence that the first well must have been made as late as 1866, as a large majority of all the witnesses have stated that these wells did not go into use in Independence or vicinity until about 1867, and it is totally incredible that such a well could have been there made in 1861, by parties who came there to show it, and which proved abundantly successful, as defendant's witnesses all testify, should not have been patented by the parties exhibiting it, as nothing else could have induced parties to have come from New York to Iowa to exhibit a well of that kind, except they had some security for a return of the necessary outlay, and as no patent on a Driven Well was in existence until 1864, that fact is sufficient proof of their error in the date. On the other hand, if these men were philanthropists traveling over the country to instruct whole communities how to make a well so cheap and efficient as this well is shown by witnesses to have been, the very supposition that this community of 2,000 inhabitants having seen this operation, its simplicity and cheapness in giving an abundant supply of water at little trouble and expense, should not have between the years of 1861 and '66 have made, not to say hundreds, which would have been the probable result, but *not even one well* is shown to have been made previous to

1866, excepting only Deering's statement that a well was made on this very spot in 1862, which statement, under any circumstances, must refer to the same well. Again, the utter improbability of two, three or four different parties, each stopping at White's Hotel, having made across the river and half a mile away from where they were stopping, as an experiment and with the same class of tools, a Driven Well, the process by the use of such tools being by the defendants themselves shown to have been patented in 1866, five years after the time when the majority of them claim this well was made, renders futile the entire effort to substantiate a well as having been made in 1861 by parties whose names and residences are unknown, and which well, by concurrent testimony of all the witnesses, remained but a few weeks in existence.

We pause here to ask, where are the men who were said to have made this well in 1861, and who Kimball says claimed to have a patent upon it, which statement a few other witnesses virtually corroborate? It is barely possible that men having such an invention may have appeared upon the scene and left without making themselves known, but what shall we say of the possibility, not to say the probability, that all the parties (and there were three of them) having this invention perfected and publicly displayed in 1861, having remained to this day unknown and unheard of, while the merits of the Driven Well and the question as to who was its inventor has agitated this whole country and been discussed by the newspapers of every section? Why have not these defendants brought forward the men who made the well, the men who told Kimball they had patented it, to substantiate the date of the making of the first Driven Well ever made in Independence? Why, but for the fact that no such well was made at that time; no such well was patented for years after, and consequently no parties are in existence who did make such a well and cannot be produced.

Complainants, during the examination of defendant's witnesses, tried persistently to get from them some clue as to who these parties were, but without success. On the examination of Tyson, in the case of Andrews *et al. v.* Cross, which examination was made by Messrs. Lake & Harman, attorneys in this case relative to the same well, it was brought out that John Fargo, who was said by several witnesses to have been present at the making of the first well, had left Independence, and when last heard from, two years previously, was on a farm near Buffalo, N. Y. In connection with circumstances which had transpired, and the fact that Fargo resided on the block next west of the place where all agree that the well or wells, if more than one were made, on the opposite side of Main street, in full view of the spot, with no buildings, fences or other obstructions intervening, as Fargo was said by some of the witnesses to have been acquainted with the parties who made the well, that if he could be found, he would be able to give some information that would lead to the discovery of who they were. After a diligent search of weeks, John M. Fargo was found residing at Warsaw, N. Y., about 50 miles from Buffalo, with his son, both of whom had witnessed the making of the well, and we also found at the same place Augustus Harrington and John West, who were interested in the well, in the making of which John West performed the principal labor, and from them and their associate in the business, Charles Brown, who had removed to Minneapolis, Minnesota, a full history of the well was secured.

Page 618.—JOHN M. FARGO testifies that the first Driven Well he ever saw was on Block 3 (Stoughton and McClure's Second Addition to Independence), in the year 1866; that exactly opposite to the place was a blacksmith shop; that the parties who owned an interest in and put down this Driven Well, were Charles Brown, Mattison Keeny, Melvin Chamberlin, Augustus Harrington and a man employed by them, John West; they were from

Wyoming Co., N. Y. Fargo states that he saw at the well Dr. Geo. Warne, S. S. Allen, Chas. T. Kimball, Trexler and McEwen; that the parties who owned and made the well stopped at the Burr House, formerly known as White's Hotel, kept by Mr. Burr. He describes the parties, and his description of Augustus Harrington and John West coincide with the only descriptions given of the parties who made the well, by any of defendant's witnesses; that the well was from 25 to 40 rods from the house where he resided; that he averaged to pass the place some six times a day while he lived there from 1857 to 1867, and when asked if prior to the putting down of this 1866 well, whether any other Driven Well had been put down on that block, replied: "I know there wasn't; it is a place I saw every day" (D. Q. 32, p. 620).

Asked if such a well could have been put down there in that spot in the year 1860 or '6, without his having known it, he answered: "It could not" (D. Q. 33). Says the Burr House was subsequently known as the Merchants' Hotel; says the party's business there was to sell territory for the Driven Wells; he understood it was called a Drive Well, Chamberlain claimed to have a patent for forming a reservoir at the bottom of the tube; they claimed to have the whole patented. On cross-examination he remembers having seen Dr. Geo. Warne, S. S. Allen, Trexler, Saurbier, Sanford Clark, Geo. Robinson, Mr. Cobb and Kimball; all excepting Kimball living on the west side of the river (xQ. 143, p. 631). From 1857 to 1867 he didn't know of any Driven Well but this, and didn't think there ever was one in Independence. Being asked if he would swear positively there was no Driven Well put down in Independence prior to 1866, answered: "I will swear that the surroundings and circumstances led me to know, as well as I know anything, that there was never any such thing there before; the papers were full of the matter, and people flocked about, saying, in the first place, that you 'couldn't get water,' and, in the next place, that 'it wouldn't last any time,' and that 'it couldn't be possible,' and that the oldest residents of the place thought it was something they had 'never seen or heard of,' and that it wouldn't be of any use after it was down" (xQ. 161, p. 632). Asked what it was made him positive there was no Drive Well in Independence previous to 1866, he answered : "'My reason is that the people of Independence, to my knowledge, almost universally claimed that they had never seen or heard of such a thing, and that not in any single instance did I hear anything that would indicate that they had, and I had quite an opportunity to know, and although I couldn't give the language of the paper speaking of it, but it was, in substance, that it was something new, and not only that they hadn't anything of the kind there, but that they hadn't heard of it before, and it was uncontradicted" (xQ. 173).

Asked what old citizen he could name as having spoken of the well as being something new and having never heard of it before, he answered : "Mr. Saurbier, for one ; S. S. McClure, who took up the first ground the city stands on ; think I heard Dr. Warne and both of the Fonda brothers ; these parties were all there when I went there ; Tom Sherwood, who was keeping the White House" (xQ. 176, p. 634).

He says they spoke of it during the excitement while putting down this well there (xQ. 177). Asked whose buildings were on the opposite side of the street, he answered there was a *blacksmith shop ;* Mr. Trexler lived next further east ; might have been a house between, is not certain (xQ. 184). Says he bought territory under the patent, some in Illinois and some in Iowa (xQ. 190, 191). He was previously acquainted with Harrington and Chamberlain (xQ. 204); "Charley" was Charles Brown ; he went by the name of "Charley" (xQ. 209, p. 636). Being asked on cross examination if ten or twenty respectable, intelligent persons should testify as to the existence of a Driven well in Independence previous to 1866, if he would not think he was mistaken about one being there, he answered : "No, sir" (R. & Q. 16, p. 637).

Asked if they had greater facilities and greater knowledge and should testify positively, whether he would doubt the correctness of *his* knowledge in the matter, answered : "I should not" (R. x Q. 17).

Frank Fargo (p. 646), son of John, says he saw the first Driven Well, he thinks, in 1866 ; he saw the whole of the driving, all the parties he remembers as putting it down, were John West and Melvin Chamberlain ; John West did the driving ; that they then lived, as he supposed, at Warsaw, N. Y.; that the well was about twelve rods west of the new Presbyterian church (D. Q. 6–12). There was a blacksmith shop nearly opposite (D. Q. 13). That he heard no person state or claim that they had seen or heard of a Driven Well before in Independence (D. Q. 18). That he was past the place where the well was driven every day ; that in 1860 and 1861 he did not know of any well being driven there ; that he passed there every day (D. Q. 25). Being asked whether a Driven Well could have existed there in 1860 and 1861, or on the adjoining blocks, without his having known it, his answer was : "I say it could not, unless it was put in in the night, and pulled up before morning" (D. Q. 26, p. 647).

Thinks the pipe was driven about twenty-five feet ; says the well was about twenty feet south of the Main street walk ; there was no sidewalk, only a path (xQ. 8, 9).

John West (p. 638) states that he was in Independence in June and July, 1866 ; that Melvin Chamberlain, Charles Brown and Augustus Harrington went with him or came a day or two afterwards : that Mattison Keeney, Charles Brown, Harrington and himself went from Warsaw ; Chamberlain had removed to Minnesota; that the other parties and himself were engaged there in driving wells and selling territory (D. Q. 4–11, p. 638). That he was in the employ of the other parties; that they drove a well on Main street about 30 rods, he thinks, from the river, towards the Fargo Hotel, on a corner where every one could see it in passing (D. Q. 13).

There was a *blacksmith shop* on the opposite side of the street, where they repaired wagons (D. Q. 20). The well was talked about by the people as a novelty and a new invention (D. Q. 25, p. 640). There were people that came from a distance; they came a good ways; lots of them came there and talked about it; one man came 25 miles and hired us to put one in for him (D. Q. 26). Says the well they drove was in use there six weeks; might have been a day or two more (D. Q. 28). A great many people came there and pumped water; wagon-loads of men, women and children from out in the country near there (D. Q. 30). All the parties with him (except Keeney) he can say positively stopped at Burr's hotel; he remembers being present when the well was put down, John Fargo, Frank Fargo, Jim Cole, Mr. Trask, Harrington, Charles Brown, Chamberlain and several others whose names he cannot remember (D. Q. 33). He did not hear any person state or claim that they had ever seen or known of such a well at Independence prior to that (D. Q. 34).

AUGUSTUS HARRINGTON (p. 650), attorney and counselor at law, Warsaw, N. Y., went to Inpendence, Iowa, May 19, '66; remained till the 21st, returned the 23d, remained until June 18, when he left finally; Charles Brown, John West, M. C. Chamberlain and Mattison Keeney were all there with him some part of the time (D. Q. 1–3). They were all directly or indirectly engaged in disposing of Driven Wells, putting them down and selling them (D. Q. 6). They put down a well at Independence, May 25, 1866; John West did the work on the south side of Main street, on the west of the river, on the opposite side of the street from a large building then occupied by John Fargo, on the opposite side of the street from there and further east (D. Q. 8). There were quite a number of people present coming and going; there was a good deal of talk among the citizens in regard to the well; heard persons ask West "how he could get water," "if he was certain he could get water," and talk to that effect; it was talked about as a novelty and as a new invention; he talked with a great many people in regard to it (D. Q. 10–11). He heard no one state or claim that they had ever seen or heard of a Driven Well previous to the one put down by West; that they all stopped at the hotel kept by Burr & Brother; he thinks it was called the National at that time; Brown was generally called Charley by everybody then; the well was 21 feet deep he thinks until they struck water (D. Q. 12–15).

The witness produced a letter written at Independence, July 29, by A. L. Burr, in which Brown is spoken of as "Charley." On the back of that letter was the following: "Yankee Robinson's show, Aug. 1, 1866;" "Frank Howe's show, July 30, 1866;" "Burr, July 29."

We sold territory in Buchanan Co., Iowa, to Elmer P. Heusted, May 18, 1866; in Delaware Co. the 2d of June, to Heusted; in Du Page Co., Ill., to G. W. Burr, June 5th (D. Q. 22, p. 652.) He made an application for a patent while in Independence, about the 14th of June, 1866, which was witnessed by T. J. Burr and A. L. Burr (D. Q. 24). The specifications were connected with Patent No. 61,536, dated January 29th, 1867 (D.Q. 24, 26). A newspaper, *The Guardian of Independence*, dated May 30, 1866, contained an article referring to the well in question, entitled 'A Great Curiosity;" I have a copy of the paper in my hand, which I obtained at the office at the time it was published. *The Buchanan County Bulletin*, dated June 5, 1866, contained an article headed "Subterranean Reservoir Wells." *The Guardian of Independence*, dated June 6, 1866, had an article with reference to the well in question entitled, "Well, What of That Well? *The Guardian of Independence*, dated June 13, 1866, contained an article concerning the well in question, entitled "The Water Still Comes" (D. Q. 27). These articles "were all, as I understood, written by the editors of the respective papers; they were not written by me or any one of our party, to my knowledge" (D.Q. 28, p. 653.)

We extract from the above papers as follows: The article from *The Guardian of Independence* is copied on pages 160 and 161, Vol. 2, Complainant's Record. It states that "boys and men, with "mouths agape, were wondering what was to pay; "whether they were 'borin' for ile' or sounding "for gold was a mystery. But at last we 'caught "the cat out of the bag.' They were putting down "one of 'Chamberlain's new patent subterranean "reservoir wells;' in other words, they were going "to get an exhaustless cistern of water by simply "driving a rod down anywhere in the ground. We "passed by incredulous, but wisely held our peace; "such seeming impossibilities do come to pass in "our day. This is a genuine invention, and no mis-"take. The bottom of this tube, in this case, was "22 feet down. Do, reader, go and look at one of "the greatest inventions of our age.

"P. S.—We learn that Mr. E. B. Heusted has ob-"tained the right from Messrs. Harrington & Brown, "proprietors, and will operate the improvement for "this county, making his headquarters here at In-"dependence."

From pages 161 and 162, as follows: "The following is a copy of an article in the *Bulletin*, dated Independence, Iowa, June 5, 1866:

'SUBTERRANEAN RESERVOIR WELLS.'

'One of those remarkable inventions is exhibited in full operation on the west side of the river. Proprietors, Messrs. Harrington & Brown. Mr. E. B. Heusted, at the Burr House, has the right for this county."

From pages 162 and 163: "The following is a copy of an article published in the *Guardian of Independence*, dated June 13, 1866:

'THE WATER STILL COMES.'

'See the advertisement of that wonderful well which we insert to-day. Everybody speaks well of the well, and it is sure to go. So well are we assured of this, that we have already bargained for one on our premises, to show our faith by our work. Go thou and do likewise.

'P. S.—We are just informed that the state of Minnesota has been sold out to Chandler & Turner, of Independence, for $2,000. The thing is going like hot cakes.' "

From page 162, the following: "The following is a copy of an article published in the *Guardian of Independence*, of the date of June 6, 1866:

'WELL, WHAT OF THAT WELL?'

'It keeps pumping still, and the reservoir seems to be inexhaustible. Time only confirms the first impression that this new patent tube-well is a first-rate affair. It may be a mystery to many how such a continuous supply of of clear cold water can be sucked out of the earth with so little ado. 'But the proof of the pudding is in the eating,' and if any one doubts, just let him go to this pump, on the west side, and see for himself. A large reward is offered to any one who will pump it dry."

In answer to D. Q. 30, Harrington produced his diary of 1866, showing his whereabouts from May 19th to June 18th.

On cross-examination, when asked if the articles published in the newspapers of Independence, and referred to by him, were printed in the interests of his party, he replied: "No, sir; they were not procured by our party to be printed; were printed as matters of news" (xQ. 11).

Page 935.—IRA HAZARD, of Erieville, Madison Co., N. Y., being produced by complainants, testified as follows:

That on the 9th of April, 1866, he made an arrangement for his son, Ira Hazard, with Spencer D. Richardson, of Syracuse, N. Y., to sell a new and improved drill head to be used at the bottom of Drive Wells, under Letters Patent No. 51,980, dated January 9, 1866, a blank form of deed for which he had produced (D. Q. 8). On that day his son went to Raymond, Iowa; he took with him these drill heads bottoms, a brace and pipe cutter (D. Q. 18, 19, page 936).

These drill heads were arranged to be attached to the bottom of the pipe by a screw, to constitute the extreme end of the pipe and facilitate the process of driving it into the ground (D. Q. 22, 23, page 938). His son also took one or two pumps with him (D. Q. 26). Hazard himself left Erieville on the 17th of May, 1866; stopped at Syracuse and got some of those drill heads (D. Q. 30, 31). Bought twelve pumps at Chicago; produced a bill of the same from Kirk, Goble & Mendsen, 36 South Water street, Chicago, the bill being dated May 21st, 1866 (D. Q. 33, 34, 38). Produced the shipping receipt, dated May 25th, 1866. On his way to Raymond stopped at Galena and Dubuque to purchase some gas pipe (a hundred feet) on May 22d, 1866, and ordered it shipped to Raymond, Iowa (D. Q. 40, 47, 51, 52, page 940). He stopped off over night with Adelbert Brown at Independence, Iowa, to pay him $200 which his father had sent by him; receipt for which he took and produced upon examination, dated May 22d, 1866 (D. Q. 53, 54, 59, 63, page 941). With the exception of remaining in Independence over night in May, 1859, and passing through again on his way home, in May, 1859, he was never there again until May 22d, 1866 (D. Q. 70). He went the next day to his son's, Robert S. Hazard, at Raymond, 14 or 15 miles from Independence, to assist in putting down those Drive Wells, employing this improved drill head (D. Q. 80-85 page 942). His son had in the meantime put down some of these Drive Wells (D. Q. 87). He found that his son had put down a well at the house of Elias Parker previous to his arrival (D. Q. 88). They had trouble with raising sand ; he heard that they remedied the trouble by taking up the pipe and putting on a perforated tin strainer or filter, which they got from a tinner in Independence (D. Q. 95, 97, 98, page 943). He was several times in Independence during his visit, and stayed principally with Adelbert Brown (D. Q. 101, 107). In one of his visits (he cannot give the exact date, but it was in the latter part of May, 1866) he saw a Driven Well in Independence, of which Adelbert Brown informed him ; told him that there had been one put down the day before ; went from Brown's to the depot, and on his return saw the well (D. Q. 108-117, page 944). There was about eighteen inches of pipe above the ground, and a pump on top of the pipe, and attached to it" (D. Q. 118, page 945).

Says it was inch and a quarter gas pipe, and a pitcher spout pump screwed on (D. Q. 119, 120). Says it was a low piece of ground where the well was ; appeared to be moist ; there was grass in the immediate vicinity, and it was very green (D. Q. 123, 124). It was on the south side of Main street ; there were no fences ; the lot was open (D. Q. 128, 129).

There was a *blacksmith shop* on the other side of the street, nearly opposite (D. Q. 130, page 946). Being shown a map he said that Adelbert's residence was southwest of the well, on lot 67 (D. Q. 137). Adelbert Brown was at the time building another residence about two miles west of Independence (D. Q. 140, page 947). He was about ready to move on the 11th of June, 1866 (D. Q. 141). He says the blacksmith across the street said to him it was a novelty—that all the ladies came and had a drink of the water (D. Q. 145). Says they drove pipe first, then introduced a borer and bored out the bottom of the well; there was a plug, as I understood, in the lower end of this pipe, a wooden plug, that was pushed out after driving the pipe into the ground; they then introduced the borer (D. Q. 146, 151). He saw at the blacksmith shop an iron bar, this two-inch pipe, which was explained to him as the pipe they used there, the borer and some other implements they used, but he cannot tell what (D. Q. 152, page 948). There were one or two perforated points there and a chain; the blacksmith gave no name as to who these tools belonged to, but said they were used in the construction of the well (D. Q. 153, 154).

He cannot say that he saw the well after that day (D. Q. 155). He describes the tools for boring at the bottom of the well similar to the description by Kimball, Warne and the Chamberlain Patent (D. Q. 156). Says he knew at that time a man named Delazon Holdridge, that he resided at Independence; a lawyer and a salesman; while in his office he had a conversation in regard to the well; Holdridge said it was something new, that they had quite a jubilee there at the time of putting it down; said that the women went, and all had a drink of the water (D. Q. 157-159). He also had a conversation with John Loomis, who said it was something new; wanted to know if he thought there was any money in it; all the people he talked with claimed it to be something new; they were strangers to him; don't know their names; the first Driven Well his son put down while he was there was for Mr. Butterfield, who lived about a quarter of a mile south of Raymond, half a mile north of his son's house; it was not far from the 1st of June, 1866 (D. Q. 161, 162, 165-167, page 949). Butterfield purchased from his son the patent right under Letters Patent of Wm. W. St. John; on his way home he stopped off at Dubuque and purchased pipe for Butterfield;

Elias Parker also bought a right for his son (D. Q. 168–170, page 950).

Says he assisted his son and Elias Parker in putting down a well for Adelbert Brown, on his farm at his new house, Brown being present; it was regarded as a novelty by those who saw it (D. Q. 174, page 950). He left Raymond for his home in Erieville on the 11th of June, 1866; was about four days on the road and arrived home the 15th of June; has never been in Independence or the vicinity since (D. Q. 180, 181, page 951).

On cross-examination, being asked if the St. John patent point was not what was regarded as a novelty, he answered: "Those looking at the well would not know what the point was." Says Adelbert Brown first went West in the Spring of 1865 (xQ. 26). The grass around the well on Block 3 had the appearance of being trampled on, it had not been excavated (xQ. 64). The blacksmith opposite the well referred to it as a new thing and a novelty in that vicinity (xQ. 75). He did not understand that any reservoir was made and any earth taken up (xQ. 77). Adelbert Brown lived in Eaton, N. Y., until 1865 (R. D. Q. 6, page 958). He did not know of his being at Independence as a resident previously (R. D. Q. 7). So far as he knows Adelbert Brown resided continuously at Eaton, from his birth until 1865 (R. D. Q. 9–11, page 951). Brown is a nephew of the witness.

While he cannot swear positively, he does not know of his ever having changed his residence until 1865 (R. D. Q. 13–16, page 958–9).

Page 258.—JOHN Q. ROYCE obtained an affidavit of C. T. Kimball, Exhibit A; was signed by Kimball at the time it bears date, May 24, 1879 (D. Q. 5–7). He read the affidavit full to Kimball, and believes Kimball read it himself (D. Q. 8).

KIMBALL spoke of another well being put upon Block 3 at the time of the building of the Presbyterian church (D. Q. 11). "The well to which the affidavit refers he spoke of as being the first well and the well over which there was so much controversy in this town; said he could not remember whether it was in 1862 or '63. I then asked him if he was certain it was after the Fall of 1861; he said it was, and not later than the Summer of '63, but was not positive whether it was '62 or '63, and I so put it in the affidavit here; he stated positively it was after the Fall of 1861" (D. Q. 12). Said he never told Kimball he wanted his affidavit on the second well in order to confuse the date of putting down the first well and help complainants in their suits (D. Q. 13, p. 259). He never stated to Kimball that he did not care for his affidavit about the well in 1861; he stated positively the well was *not* put down in 1861 (D. Q. 14). Their talk and affidavit all referred to the first well, and that is the name Kimball gave it (D. Q. 15). Don't think he gave any particular year as to when the Presbyterian church was being built (D. Q. 16). In conversation Kimball told him the man who put the well down came from New York; he couldn't think of his name, or had forgotten it, one or the other; that the tube was in pieces, screwed together as they went down, and an iron pump screwed on the top of it (D. Q. 17).

On cross-examination, he said he did not know that Kimball ever had made an affidavit for the defendants; why he went to see Kimball was that some one called his attention to the fact that Kimball remembered the well as being there later than 1861 (xQ. 11, p. 260). Kimball never refused to swear to an affidavit that he asked him to; that he himself made a mistake in writing the affidavit; it was laid aside, on his own motion, and not Kimball's; the mistake was made before it was finished (xQ. 16).

Kimball did not tell him that he had made an affidavit for defendant, nor that the well was put down in 1861, or that *a* well was put down in 1861, nor did he tell him that he must not allude in the affidavit to the fact that it referred to the *first* well (xQ. 17–19, p. 261). That it was not alluded to in the affidavit as the *first* well, he presumes was from the fact that it was supposed to be the only Driven Well there prior to the building of the Presbyterian church (xQ. 20).

Being recalled (p. 1094) and cross-examination continued, he said Kimball told him it was either in the Summer of '62 or '63; that some parties remembered it in 1861, but they must certainly be mistaken; that he was positive *it was not in '61*, and equally positive that it was after '61, but could not tell whether it was '62 or '63; when he was asked if he was willing to make an affidavit he said he was; "I think we went down then to Eastman's office and he made the affidavit;" that the first he commenced writing was laid aside on account of informality; he thinks on account of not being entitled; did not show one to Mr. Kimball that he refused to sign (xQ. 55, 56, p. 1098). The reason of the fact not being stated in the affidavit that this was the first well, was because no other was ever referred to (xQ. 57).

Kimball did not tell him that he had already made an affidavit as to the well put down in 1861 (xQ. 65). Says that he clerked for Kimball in 1872 or '3 (xQ. 66).

CHARLES BROWN (p. 262) went to Independence from Wyoming County, N. Y., the last of May or first of June, 1866, selling the Drive Well; had three partners, Harrington, Keeney and Chamberlain (D. Q. 2–6, p. 262). He remained in Independence about three weeks; there had been no Drive Wells in Independence previously, that he knows of; didn't see any or hear of any; had a well driven in Independence somewhere from the middle of June to the first of July, 1866, as near as he can recollect (D. Q. 11, p. 263). He fixes the date by a mare having been stolen from John Fargo before he went to Independence, and Mr. Fargo found her at St. Cloud, Minnesota, and brought her back to

Independence while he was there (D. Q. 12). The well was made of gas pipe in sections, with perforated holes to let the water into the pipe, with steel point on the lower end of said pipe ; the point he thinks was eight square, with a shoulder on it, so that it would not drive up into the tube ; was fastened to the pipe with a rivet ; this pipe was driven with a sledge ; we had it connected with screw couplings, in joints from 4 to 6 feet long ; used from 3 to 5 sections ; the location was on the west side of the river, about 40 rods from the west end the bridge, on the south side of Main street ; it was then on a vacant lot, nearly opposite a blacksmith shop, between the bridge and a brick building that was afterward used as a hotel ; used a suction cistern pump screwed on to the top of the pipe ; Chamberlain, Harrington, West and H. S. Cole, of Independence, were present, and many others whom I did not know ; their party stopped at the Burr House ; Harrington and West were all of their party that stopped there with him (D. Q. 13–19). The hotel where they stopped had a basement, used as a sort of storeroom ; showed the Drive Well material to H. S. Cole, a man by the name of Brown, don't remember the first name now, to whom he sold some territory, and others whose names he doesn't remember ; the material was contained in a wooden box 6 or 8 feet long, about 10 inches wide and 12 inches deep ; while at the hotel, cannot tell where the box was placed and kept (D.Q. 20–23, page 264). The people of Independence seemed to think they had a good thing in this well ; the general impression seemed to be favorable ; parties came and wished us to put down wells ; took the names of the parties, and told them the parties we sold to would put them down ; we gave the names to the parties we did sell to ; the well seemed to be regarded as a new way of getting water ; people generally fell in with that way of making a well ; those who had no stone thought this was a good way of making a well, that they would get no surface water in this way; thinks he took the well up about two weeks after it was driven (D. Q. 24–26). The well was put down for the pur pose of showing to the public that way of getting water, so that they could sell territory (D. Q. 27). They sold some Iowa territory to a man by the name of Houston; thinks they had sold him Buchanan County; also some to a man at Vinton; his partner (Mr. Chamberlain) sold some Iowa territory to John Fargo; he himself sold Black Hawk County, Iowa, to a man whose name he doesn't remember; all these sales were made in the Summer of 1866 (D. Q. 28, page 265). Sold the right of the State of Minnesota to parties whose names he doesn't remember, but might have been Chandler; sales were made in exchange for lands while he was in Independence (D. Q. 29). Houston put down a well in a wood shed near and northwest of the brick hotel, west of the river; tried to put down a well east of the river, near Main street, but failed, having struck rock (D. Q. 30). All the parties that he remembers being present, whose names he knew, were Chamberlain, Harrington, West, H. S. Cole and John Fargo (D. Q. 31).

On cross-examination he said his first visit to Independence was about June, 1866; he was previously acquainted with the Burr's, H. S. Cole and John Fargo (xQ. 1, 2, page 265). The Burr Brothers formerly lived at Castile, Wyoming County, N. Y. (xQ. 4). Was not in Independence after 1866, until February or March, 1877 (xQ. 25, page 267). The *blacksmith shop* was about 100 feet from the well, a little east of north, he thinks, across the street. (xQ. 33).

There was a building right east of the well, about 100 feet distant; thinks it was a small dwelling, but might have been a workshop (xQ. 34). While in Independence he was fully satisfied in his own mind that this well was regarded as something entirely new and highly useful (R. D. Q. 6, page 268). Doesn't remember whether they had the well material in the basement of the hotel or not; the patent they were selling was Chamberlain's Improved Reservoir Well (RxQ. 2, 3, page 269).

Page 269.—ADELBERT BROWN has resided in Iowa since the first Monday in March, 1865 (D. Q. 2). There was a well put down on the Presbyterian church block in June, 1866; couldn't tell who made it; it was near the northwest corner of the block, opposite Mr. Kays' shop; it was known as a Drive Well (D. Q. 5). It was a pipe driven in the ground and an iron pump attached; only saw it as he was passing there two or three times a day (D. Q. 6, 7, page 270). Mr. Ira Hazard was with him at one time when he passed the well; he stopped at Fonda's store on the corner, as he (Mr. Hazard) went and examined it; thinks it was in June 1866, three or four days after it was put down; he called Mr. Hazard's attention to it, that there had been a Drive Well put down there; thinks he said to him that wells were being put down by other parties; Mr. Hazard and his son were intending to put down wells in Buchanan and Black Hawk counties, as he understood them (D. Q. 9–12, page 270).

Says this well seemed to attract the attention of the public as a new kind of well and a novelty (D. Q. 15). It was regarded more as a novelty than anything else; saw no one carrying water from it (D. Q. 16). Didn't know of a well having been put down on that block previous to that; thinks it was the first Driven Well he ever knew or heard of in Independence (D. Q. 17, 18, page 271). He assisted Robert Hazard in making a well of the kind on the premises of Elias Parker; then punched a hole with a bar in the first place; drove down a gas pipe with a steel point on the lower end; he helped draw the pipe out and clear the sand out of it; then put on a patent point, placed the pipe back, attached a pump, commenced to pump and pipe filled with sand, had to take it up again; cleaned it of sand, took off the point and had it covered with perforated tin, placed it on the pipe, put it down and had no more trouble;

he himself suggested putting on the perforated tin (D. Q. 21, 22). Doesn't know of any other wells being put down in Independence about that time by Ira Hazard or his son R. S. Hazard (D. Q. 23, page 272). The idea of putting on a perforated pipe was original with him; Hazard never claimed that he had used it before; he (Hazard) thought we could get a well if we could stop the sand (D. Q. 24). Doesn't remember seeing any earth about the well on Block 3 (D. Q. 26).

On cross-examination (page 272) said he was in Independence in March, 1860; was not in the place again until he came back in 1865 (xQ. 4–6). Had seen Hazard put down two wells before seeing this on the Presbyterian church block (xQ. 8, 9). One was for Elias Parker and one for himself; neither of the Hazards had put down any wells at that time in Independence to his knowledge; they stopped with himself and Elias Parker, sometimes with one and sometimes with the other; says Ira Hazard is his uncle, his son a cousin (xQ. 12, 13, page 273). He heard of their making other wells at Raymond, Black Hawk Co., Iowa, had heard of this kind of well before he saw the Hazard's make one at Elias Parker's, in the Summer of 1865, he thinks; his father wrote him they were putting down wells in Hamilton, Madison Co., N. Y. (xQ. 17, 18). Says the point they used was cast with openings cast in it; two or three rows of slots, about 6 inches long, one-quarter inch wide, solid at the bottom, with the slots above the point; they did not use this point until the well was made; they put it on covered with perforated tin, to admit the water the last time of putting down the pipe (xQ. 29, 30, page 274). Says this was the kind of point they used in Elias Parker's well before he suggested to them to cover it with perforated tin (xQ. 31). In making the Parker well they pulled up and put down the pipe until the hole was large enough to admit the pipe running right down so they could force it down with their hands (R. D. Q. 1, page 275).

George W. Burr (page 275) was connected with the White House from July, 1865, to June, 1870; parties having for sale a patent for making wells stopped at the house some time in 1866; they were Brown, Chamberlain and Harrington; thinks they had a man with them to do the work, whose name he doesn't remember; thinks they came some time in June and remained two or three months (D. Q. 7-9, page 276).

Brown's name was Charles J.; soon after they came there they put down a well as a sort of advertisement, to show what they could do, on a block near the Presbyterian church; doesn't think he saw the well made, but was passing as they worked at it; they had pumps, tubing and tools for putting down the tubing (D. Q. 10–14). They kept these things in the basement or cellar of the hotel (D. Q. 1). They had a sort of box or tool box that they brought them in; has no recollection about the length of it; it was a long sized box (D. Q. 16, 17). Was not much acquainted with C. T. Kimball at the time; saw him nearly every day quite often at that time; saw him most frequently at the office of the hotel; doesn't know what his occupation was; he was around ready for any chance of making money; if any one came along with a job he was ready for it; couldn't say as to that time, but afterwards he was called a patent right dealer; was not well enough acquainted with him at that time to know much about him (D. Q. 18–22, page 277). These men did not make a well in the cellar of the hotel; they had some talk about it, don't remember the conversation; saw Thomas Sherwood while the men were there; thinks he was in the livery stable business at that time, but would not be positive (D. Q. 24–26, p. 277). At the time he was passing, when the well was being made, there was a crowd there, but couldn't name any of the individuals (D. Q. 27, 28). Had not seen or heard of a similar well being put down in Independence previously; says if they got one to work all right, they would consider it a nice thing; it was considered a novelty (D. Q. 29-31).

On cross-examination (p. 278) is not sure whether he (Burr) and Lowe (his partner) commenced keeping the hotel in the Spring of 1864 or '65; thinks Sherwood kept it before they came; the reason he thinks so was that his father bought the hotel of Sherwood, and thinks Sherwood was keeping it when he bought it; he was never in Independence when Sherwood kept the hotel, and all he knows about his keeping it is what he has been told (xQ. 1-5). When Brown, Chamberlain and Harrington were stopping there, Thos. Sherwood was there frequently, he thinks nearly every day back and forth (xQ. 7, 8). Can't say whether he boarded there or not in 1866; thinks he kept a house in town, but got his meals there occasionally (xQ. 9, 10). It is his impression that he lived on the same block on which the hotel is situated, in the house north of the barn (xQ. 15, 16). Was not acquainted with Brown, Chamberlain and Harrington when they were there; had seen Mr. Harrington before at Castile, Wyoming Co., N. Y., in the Summer of 1862, but neither of the others (xQ. 20-23, p. 279).

The parties did not seem to be private about their business, or afraid to let folks know they had Drive Wells to sell; they were selling territory, he believes; thinks they all stopped at the hotel, and did not go away at the same time (xQ. 25, 26). He saw the material in the basement; don't know how long after they came; nor how long it was after they came before they made the well; it was not over a week or two at the outside, and might have been within a day or two (xQ. 41-43, p. 280). Don't remember that he had ever seen or heard of these wells before Brown & Co. came to the hotel in 1866 (xQ. 56, p. 281).

Thomas H. Tyson (p. 281) testified for defendant in a Driven Well suit April 26, 1880; doesn't know what case it was in; in that case he answered that he didn't know anything about the parties who put down the well any more than what he saw of them when they were putting the well down; that they represented themselves as from Buffalo, N. Y.; that there were two of them; that he described one as a tall man, middle aged, dark complexion, rather large; the other small or medium sized; the men were strangers in Independence; that he was present during the time they were putting down the well, helping to put it down; saw but one person that he could name, and that was John Fargo; he now lives close to Buffalo, N. Y.; he was engaged in farming the last time he heard of him. Says he also testified the well was put down, as he thought, as a sort of an advertisement. Being asked who procured him to assist in making the well, he answered he was not procured by any one; he was helping for the novelty of the thing; that it was then regarded as a novelty. Says in that examination he testified to two wells, but that these questions and answers referred to the *first* one; that he did not see the men who put down the second well; his recollection is there were two men with the first well. Being asked on cross-examination (page 291) whether he was sure that John Fargo was present, answered "*His impression was that he was*" (xQ. 16, p. 284). When asked if he recollected whether his answers on his previous examination were read by counsel for complainants precisely as he gave them, answered: "In the main I did" (xQ. 21, p. 284). J. R. Kays (p. 284) first came to Independence in September, 1865; moved there 24th of October, 1865; resided there till March 1st, 1868; for about two months resided at the end of Main street; balance of the time on lot 5; also 19 feet of lot 6, Block 22, Stoughton and McClure's second addition to the city of Independence; says while he resided on block 22, he was engaged in the blacksmith business in a shop on the southwest corner of lot 5; he owned it; when he bought it there was an old house on the lot, about 16x22, one story high, consisting of two rooms and a lean-to on the north side; it was occupied as a dwelling; the house when he bought it was on the extreme southwest corner of *lot* 5; December 12, 1865, he bought the man out who was living in the house and turned it into a *blacksmith* shop in just 26 days (D. Q. 3–13); he knew of a well being made on the northwest corner of the lot directly south of his shop, opposite; it was made by driving a tube into the ground; after it was driven into the ground there was a pump attached to it; says there were two parties who made the well; and is not positive but that there were three; heard no claim made by them as to their residence; cannot tell whether it was the first or second Summer after he occupied this building as a *blacksmith shop;* he stored their tool box for them in this shop and did some little repairing; the box was 6 or 7 feet long, about 22 inches wide; thinks it was wider than it was high; it contained tongs, chains, bars and springs (D. Q. 14–22); there were no Driven Wells in use at Independence at that time, to his knowledge; it seemed to attract considerable attention; was a novelty to him, and was regarded by the public as a good thing, from hearing the expression of the people (D. Q. 28, 29); he had never before seen or heard of a Driven Well; some parties came and took this up and took it away; James Cole told him that the parties stopped at the Burr House (D. Q. 32, page 287); at the time the well was made there was a circus or menagerie, cannot say which, on the ground where the public school building now stands, west of the Empire House; his memory is that there were a great many people used the well that day; thinks there was plenty of water (D. Q. 35); says they used a driving head and a sledge to drive the pipe; knew of another Driven Well being put down near the Presbyterian church in the Summer of 1868, east of the well he has described, perhaps 100 feet; that is all the wells he knew of being on that block (D. Q. 36, 37).

On cross-examination (page 288) had never heard of a Driven Well until he came to Iowa (xQ. 4). The parties when there sold territory to a young man named Heuston (xQ. 27, page 289). He remembers two parties in connection with the Driven Well, perhaps three; he did not use the well himself further than to go and get a drink, as he had a good well on his own premises (xQ. 31, 33). They drove 30 feet; had a cast iron pump about 3 feet from the ground (xQ. 35, 38, page 290). There were no buildings on the lot where the pump was; there was a building on the third or fourth lot from the northwest corner where the pump stood; it was a dwelling house, Mr. Goodwin lived in it; to the best of his knowledge he lives there now (xQ. 45–48). The house is about 50 feet from the well, he should think, perhaps more; is sure that the house that he made into a shop was not a log house, the siding of bass wood and the floor oak (xQ. 49, 51, 52). If there had been a Driven Well put down on the same lot in 1861 he would not have known it (xQ. 54).

On redirect examination (page 306) says if there had been it seems as though he would have heard of it (R. D. Q. 1).

On recross examination (page 291) had a brother-in-law that might have told him; Dr. Warne might have told him, if anybody, or George Mann, his brother-in-law (RxQ. 1, 2).

Thomas J. Burr (page 292) came to Independence in June, 1865; was boarding at the National or Burr House; his son and son-in-law kept it; he got four different deeds of the property; Thomas Sherwood kept it at the time he took possession; has forgotten what it was then called; during the time he was there remembers persons stopping there who were dealing in a new kind of a patent well; there were three parties, Brown, Harrington and Chamberlain; they were from Wyoming Co., N. Y.; two of them were; it was what they called a Drive Well (D. Q. 2–7). They had with them a wooden box in the basement; he saw a wooden box, supposed it belonged to them; would not be certain that it did; saw some tools, tongs, springs and other tools; did not look particularly; they were tools used for driving a well; box was some eight or ten feet long, two feet deep and a foot and half wide; recollects Mr. C. T. Kimball boarding there; don't know particularly whether he was concerned with them in the business or not; doesn't recollect so particularly about Kimball as about Brown and Harrington (D.Q. 8–10). Recollects there was some talk about putting a well in the basement of the hotel, but doesn't know as any attempt was made to do so (D.Q. 11). Suppose S. Brown and Chamberlain kept their tubing in this box, *merely supposes:* is all he knows about that; his impression is it was in 1866; has not looked at any dates; was acquainted with John Fargo; he was frequently at the same hotel and saw him in conversation with Brown and Chamberlain (D.Q. 12–15).

On cross-examination (p. 293), recollects Mr. Kimball boarding there, but doesn't recollect his given name; he was a tallish, slim man of sandy complexion, rather on the red head order, and something ailed one eye; that is the impression I had of him; believe his wife was with him; thinks they both boarded at the Burr House while Brown, Harrington and Chamberlain were there; does not recollect how long they boarded there; his *son*, George Washington Burr, was living at Independence in 1866, while Brown, Harrington and Chamberlain were there; thinks he was running a 'bus and attending to the barn and passengers in connection with the Burr House at the time Brown & Co. were there with this well (xQ. 13–18).

WM. H. JOSLYN (p. 294) first heard of a Driven Well at Independence in the Summer of 1866; a party was there from New York to sell the right to what they called a Reservoir Well, constructed by driving an iron of sufficient depth to reach water, and then by some appliance inserted in the pipe, and sunk in the pipe to the depth of the water, the soil was stirred up and removed, leaving a reservoir for the water, and a pump attached to the pipe completed the well; it was located on and near the line of the street on the west side of the river, near the northeast corner of the block Woodward afterwards owned, now owned by Z. Stout; his recollection is it was in the street east of that block; the nearest building was across Main street north; thinks it was a dwelling; don't know who occupied it; he then resided on the east side of the river; had lived in that immediate locality about six years (D.Q. 3-7, p. 295). Previous to that lived nearly opposite where the Presbyterran church now stands, a little further west than that, he should judge; lived there perhaps two years (D.Q. 8, 9). At the time this well was put down. Has no recollection of hearing of any other Driven Well having been put down on that locality at any time previous; where he boarded was, perhaps, 20 rods from the northeast corner of the block where the Presbyterian church now stands (D.Q. 11). These persons boarded at the Merchants' Hotel, kept by Burr, of the Burr Brothers; seems to him it was Burr Brothers; the well was regarded as a new thing, or a novelty at that time (D.Q. 12, 13).

On cross-examination (p. 296), says he was married in 1859; resided on the west side of the river for about two years; the first house he lived in was a one-story brick on Lot 6, Block 22; lived there six months, then moved into a story-and-a-half frame house east; either on the same or on the lot adjoining on the east; thinks he lived there one year, maybe more; the second house was on Lot 7 of same block (xQ. 6). A man by the name of Trexler lived west of him, thinks his initial was J; was married in December, 1859 (xQ. 12). He hardly thinks it possible that a Driven Well could have been put down in 1861 near the northeast corner of Stout's block and he not know it (xQ. 29, p. 297). Was in a store where such things would be very apt to be talked of; was in P. C. Wilcox's store, the principal one in the place (xQ. 31, 32).

J. M. CHANDLER (p. 304) first moved to Independence, he thinks, in 1856, and has lived there ever since (D. Q. 2, 3). First saw a Driven Well in 1866 in Independence put down near the northwest corner of the block where the Presbyterian church stands; he says near the corner, for it might have been in the street, but he thinks not, thinks it was on the northwest lot in that block (D. Q. 4). Cannot state the month exactly; thinks it was May or June; the pipe was driven; an inch and a half gas-pipe, with screw couplings, driven down into the ground with a maul and sledge till they came to water, about 22 feet, or may have been 20; cannot recollect whether the measurement was from the top of the ground or from the pump, which stood about a foot and a half or two feet from the ground; the gas-pipe had a steel point (it was termed to be) at the bottom, driven into the ground, eight square; there were three rows of holes about three-eighths of an inch in diameter, each hole; the first pipe driven had no holes except where the pin was put through to hold the point; the point did not fill the hole closely, but allowed water to come in so they could test the depth of water in the pipe; after they had tested and found sufficient water in the pipe, they raised the pipe that was driven, took it out, took out the point, put in a wooden point without a fastening, made of pine; put down the pipe again; took a rod inside into the pipe, drove out the wooden point, and inserted a steel apparatus, or spring clamps, attached to a rod with a handle on the top end, similar to an auger; pushed those springs into the bottom of the pipe, into the gravel, turned it back and forth in the gravel, to stir up the sand at the bottom, claiming to make a reservoir; then the rod with the spring was taken out, a large pump put on, and the loose sand they had stirred up was pumped out; then this pipe taken out and a perforated pipe with a wooden plug in the end of it inserted; a pump placed on that, which completed the well; there was some sort of a brass wire screwed on the inside of the pipe, in the last pipe put down; the pump was an open-top cistern pump, cast iron (D. Q. 5, 7, p. 305). He thinks near this well there was a *blacksmith shop*, north, across the street, and thinks there was a low one-story wooden building east of the well; on the next lot, south of it and in plain sight; southwest from there S. S. Allen's house; there was a dwelling across the street from the well east of the blacksmith shop, northeast from the well; thinks Mr. Kays lived there; Mr. Stephenson lived one block north across the street; he lived on the same block with Stephenson; no other buildings on the same block (D. Q. 8, p. 306). Charles Brown and another party, he thinks it was Chamberlain, put the well down; he was not acquainted with him at the time; would remember Mr. Brown to-day but don't remember the other one (D. Q. 13).

Brown and Chamberlain stopped, he thinks, at Burr's Hotel, which was first known as the "White House," "Burr's," "National," "Merchants'," possibly other names (D. Q. 15, 16).

Saw both Brown and Chamberlain at the hotel; knew C. T. Kimball; Brown and Chamberlain kept their tools and material, he thinks, in the cellar or basement of the hotel; is not quite clear about it, but thinks it was in a long box; was acquainted with John Fargo and Thomas Sherwood at that time; he remembers J. B. Turner being present at the making of the well; thinks he saw Thomas Tyson there and Fargo, but would not say for certain; presumes Kimball was there, but don't know it (D. Q. 17-24). Had no knowledge of any other Driven Well being put down on that block, or in the city of Independence previous to that time; says that was the first one he ever saw; knew of such things by reading; the well he saw put down in 1866 called quite a crowd about there where they were driving it, and after it was driven they were pumping continuously, seemed to be all that day ; saw the well there for a couple of weeks, how much longer he don't know; heard people express themselves as it being the first they had seen, but could not give names (D. Q. 29-31, p. 307).

He purchased of Brown and Chamberlain their patent on the well for the State of Minnesota ; the deed was made out to himself and J. B. Turner (D. Q. 32, 33). It is possible the well might have been put down in 1861 ; he was away a portion of the year—out of the State even ; but if it had created as much excitement and attracted as much attention as the one he described he thinks it quite likely he should have heard of it (D. Q. 35-36).

Yankee Robinson's circus and menagerie exhibited in Independence in 1866 ; when he went away in the Spring of '61 thinks he returned in July ; if it was in July it was in the early part or latter part of June ; was not away that season again for any length of time until near the next New Year's (D. Q. 42, 43, page 309). Was quite often on the west side of the river, would probably average once a day ; probably one-third of the time whilst he was on the west side of the river he passed the northwest corner of Block 3 ; if there had been a Driven Well there then in plain sight he thinks he could not have helped noticing it (D. Q. 44-46).

On cross-examination (page 310) he says they used a tube to drive into the ground the first thing, so arranged that water could come into it when they reached water in the ground (xQ. 9, 10). The point was made with what they deemed to be steel —with a shoulder fitted to the end of the pipe ; this projection passed up into the pipe about three inches, with a hole made through the shoulder or tenon, with corresponding hole in pipe, fastened with a pin going through pipe and steel point ; there might have been two other holes ; thinks there was ; knows the shoulder and pin did not fit so tight but what water could get in and did get in, for he knows they tested it in driving; when they got to the water, thinks they took this whole thing out of the ground and put back same pipe they drove; thinks there was no change made except in putting in a point made of pine; they put tongs on the pipe, a man stood on the tongs, they turned the tongs, they put it down a portion of the way—in that way, and drove the balance, that is his recollection; in the last tube the point was merely a wooden plug; thinks three rows of about three-eighths of an inch drilled holes for about eighteen inches up the pipe from the bottom, with a wire screen on the inside of the pipe. Thinks they used coiled wire inside of that wire screen; is not positive; saw the well there for about two weeks; he left about two weeks after it was driven; doesn't remember seeing it after he returned from Minnesota (xQ. 9-24, page 311). Doesn't remember the name of the patent; the deed was destroyed by fire; purchased the territory of Brown & Chamberlain; Brown now lives in St. Paul, Minnesota (xQ. 27, 28). Can't say where he read about Driven Wells; might have been in the *Scientific American;* he read it often at that time (xQ. 53½, page 313).

Thinks he saw C. T. Kimball at the making of the well, but will not say positive (xQ. 54). Knew T. H. Tyson in 1866; thinks he saw him at the well (xQ. 67).

John Wiley (page 315) during the years 1860, '61 and '62 says he boarded at the Montour House in Independence, on the east side of the river; the first Driven Well he saw was by the Presbyterian church; it was about two and a half rods west of the church, in the year 1868; it excited curiosity with him; couldn't speak for others, only a few that expressed themselves; three or four; perhaps more; was told it was one of Hovey's patent Drive Wells; he knows that from a statement made to him a week or two ago (D. Q. 3, 5, 8-10, 12). Didn't see a well in that locality during the years 1859 and

'60 or '61; never heard of it; didn't see it; Kay's *blacksmith shop* was on the block opposite where this well of 1868 was located; what makes him certain of the date in regard to the church well was that he looked up the date when he paid up the subscription toward building the church (D. Q. 16, 17, 21, page 316).

On cross-examination (page 317) his impression is that it was stated that this was one of Hovey's patent wells; never heard of anything else, except Hovey's patent, until within the last year or two, since this case commenced; don't know what their patent covers; have heard that one of the Hovey's has a patent, which brought up this trouble here (xQ. 8, 9, page 318).

L. W. GOEN (page 318) is editor of the *Independent Conservative*, successor to the *Independence Civilian*, and custodian of the files (D. Q. 1, 3, 5). Has produced such copies as he could find of the issues of April, May, June and July, 1861, and some months of 1866. They were the dates of May 14th and 28th, and of June 4th, 11th, 18th, 25th; July 16th, 23d, 30th and August 6th in 1861; June 25th, June 22d, July 24th and July 27th, 1866. Other files were at Lake and Harmon's office, one of the office boys having loaned them, and Mr. Harmon refused to let him have them (D. Q. 7, 8, 9, 12, page 319). Asked to examine the copies he had produced, he said; from a cursory examination he believes there is in them no reference to any Driven or Tube Well.

A. R. WEST (page 320) has examined files of the *Civilian*, and in issues of February 7th, 14th; March 7th, 14th, 28th; April 4th, 11th, 18th, 25th; July 2d, 9th, 16th, 23d, 30th; August 6th and 13th, 1861, and says there is nothing in any of said numbers that alludes to a Driven Well or putting down a well in Independence in any manner (D. Q. 2, 3, 4). Has made by himself and by agents employed for the purpose, search to find files of any paper published in Independence in 1866 covering the months of April, May, June and July, but could find none (D. Q. 5). Found numbers of the *Guardian* for 1861; examined particularly numbers of March 5th, 12th, 19th, 26th; April 2d, 9th, 16th, 23d, 30th; May 7th, 14th, 21st, 28th; June 4th, 11th, 18th, 25th; July 2d, 9th, 16th, 23d, 30th, 1861, and there is not in any of the numbers referred to any article, notice or advertisement of a Drive or Tube Well or the putting down of such a well in Independence, Iowa. Has made diligent search and could find no files of either the *Guardian* or *Bulletin* for 1866.

JED LAKE (page 322) is counsel for defendants. Says in the year 1861 there was published in Independence, Iowa, a newspaper called the *Independence Civilian* and one called the *Buchanan County Guardian;* in 1866 the *Independence Conservative*, the *Buchanan County Guardian* and the *Bulletin* (D. Q. 3). Has examined files of the *Civilian*, such copies as he could readily find, published in 1861; has never been able to find a complete file; examined such papers as he found to see if there was any mention made in them of any well made by driving an iron or tube into the ground and attaching a pump at tne top, and found nothing in relation to such a well; the numbers he examined bore date April, May, June and July, and, he thinks, one or two in August, but as he recollects there were not the full numbers of either month (D. Q. 4, 6).

Examined some numbers of the *Independence Conservative* printed in the summer months of 1866, and found no mention of that kind in any of them; there were some papers published in March, some in April, some in May, some in June and some, he thinks, in July, 1866, but the files, as he recollects, were not complete of either month (D. Q. 7, 8, page 323). Has examined files of the *Guardian* and the *Bulletin*, covering a portion of the years 1860, 1861 and 1862, and found no reference in any of the papers to a tube or Driven Well; numbers of the *Bulletin* that he examined covered a portion of the year

1866; and found no reference in them to a tube or Driven Well, but did find an advertisement of a Reservoir Well (D. Q. 10, 11, page 323). The numbers he examined were March, April, May, June and July; the advertisement he thinks was in one dated in June, 1866 (D. Q. 12, 13). His recollection is that the paper said it was " one of those celebrated reservoir wells, Chamberlain's patent, and that a man by the name of Husted or Houston had the right for Buchanan County, and would furnish wells to any one wanting them; thinks he found the paper in the *Conservative* office; don't know where it is now (D. Q. 14, 15). He made considerable search for the copies of the three papers, *Conservative*, *Bulletin* and *Guardian*, published in May, June, July and August, 1866, but in neither of them found any notice or mention of a Driven or Tube Well, and in but one number of the *Bulletin* did he find any notice of a Reservoir Well (D. Q. 16, page 324).

On cross-examination (page 325) says he was acquainted with the editors and proprietors of the *Civilian*, *Conservative* and *Bulletin*, during the years 1861 to 1866; it was the custom of each of the editors of those papers to notice such articles in their papers provided the parties having them in charge paid the editors for so doing, otherwise they did not notice them (xQ. 5, 7). Doesn't remember of seeing or hearing of a Reservoir Well in 1866; says he saw an iron tube sticking out of the ground about 18 inches, on top of which was an iron pump, on the northwest corner of Block 3, the last part of April or fore part of May, 1861; it remained there until the latter part of July, 1861 (xQ. 10, 11, page 325).

Kimball says the well he saw driven had an iron point (xQ. 52, 53).

West, who drove the 1866 well, says it had an iron point.

McEwen and Trexler say that the '61 well had a wooden plug, which Tyson says they drove out;

and Trexler says they tied the point in; while Dr. Warne says the 1866 well had a wooden plug.

These contradictions, after a lapse of so many years, are reconcilable only on the assumption of an error in dates and by the statement of Kimball that the man who made the well, and showed him the apparatus for making the reservoir, told him that the ribs of the machine were steel knives, and when below the pipe could be opened and turned around and cut out a reservoir as large as a barrel, and this dirt could be pumped out by a sand pump; that in sandy or gravelly soil he could make a well without cutting out the earth, that the gravel and sand were a sufficient reservoir. "We tried it where I described and succeeded in making the well; it was a success." (See Kimball's Affidavit of Dec. 30th, 1878, made for defense, page 1,944.) The well made by West, for Chamberlain, Brown and Harrington, in 1866, did not have a reservoir cut out at the bottom, *because* the sand and gravel there were a sufficient reservoir; and Dr. Warne is evidently in error as to a wooden plug being *used*, although correct as to its having been a part of the patented process. The testimony of McEwen and Trexler about the wooden plug, with the exception of the date which they miss state, is explainable upon the same theory; and McEwen's statement that he thinks the Ross House was then on Block 3, and *Kays's blacksmith shop* across Main street, and that one of the parties was called Charley, all goes to *prove* that he was wrong in his date, and that the well he saw was in 1866. The main radical difference discovered is between Kimball's statement, that he saw but one man at the hotel connected with the well, while there were at least three parties connected with the 1866 well; but as all the other witnesses, who testify of an 1861 well, say there were two or more strangers interested in it, the statement of Kimball's is evidently incorrect, and reference to his contradictions of himself render it not at all incredible that it is. The frequent presence of Kimball and Sherwood at the hotel during 1866, Kimball for a time boarding there during that year, as testified to by himself and Thomas J. Burr, also strengthens the probability of his unconsciously making an error in the date. The testimony of the Burr's that the parties in 1866 also kept their tools, tongs, springs and materials in a box in the basement of the hotel, and their testimony in regard to talk about putting a well in the basement of the hotel at that time agrees with Kimball's statement, except as to date.

We have so far endeavored to harmonize the evidence of the witnesses, and show, by attendant circumstances testified of in regard to wells claimed to have been made at two different dates, proof that there was but *one* well of the kind made on Block 3, and we have thoroughly proved *that well* to have been made in the Spring of 1866; in addition to this we have proved by John M. Fargo and Frank Fargo, who resided within 30 or 40 rods of where the well was made, without any intervening buildings or fences to obstruct the sight, and near the sight of which, during the year 1861, they both passed daily and several times a day, and both say no such well was there in existence, nor could it have been without their knowledge, one of them qualifying by saying: "Unless it was put down in the night and pulled up before morning"; and when to this we add the testimony of the witnesses that the well of 1866 was a matter of novelty and created great curiosity among the inhabitants of Independence, and as John West says, people came from 20 miles in the country to visit it and numbers of people came there to test the well, all deeming it an extraordinary invention; and then, as would naturally follow, we find the newspapers of Independence making repeated mention of the well, calling the attention of the people to it repeatedly, sounding its praises as a curiosity and useful novelty; and that too, as Harrington has testified, without the procurement or at the request of any of his party, who owned and put down the well. It was such a novelty and curiosity as compelled a notice from the newspapers as a matter of current news, which no enterprising editor would for a moment overlook; and this, notwithstanding the statement of defendant's counsel, Jed Lake, and of a former editor of an Independence newspaper that the editors of those papers would not notice any new invention of value to the public unless paid for it, by which testimony it was endeavored to account for the non-appearance of any article or single word of notice in either of the papers published at Independence in the Spring of 1861 of any such well having been then there in existence. If the parties had in 1861 come all the way from New York to exhibit and sell such an invention, or the wells made under it, and had been at the trouble and expense of putting down such a well and allowing it to remain for weeks as an advertisement, had not thereby secured voluntary notices in the newspapers, does any sane man believe that they would not have added to their expenditures the trifling amount necessary to have called the attention of the public thereto by an advertisement, a payment to those grasping editors, if such they were, as would have induced a favorable notice of the invention which they had taken so much pains to introduce to the public, whether for the purposes of gain, fame or philanthropy? the omission of all mention of such a well in 1861, when, as all defendant's witnesses claim, it was a matter of great curiosity, and as all our witnesses say, they heard no claim, statement or suggestion of any similar well ever having been put down in Independence from any of its inhabitants, this, together with the fact that the claimed 1861 well was not mentioned in the newspapers, while that of 1866 is shown to have been voluntarily and extensively noticed, and the testimony shows to have been considered a great curiosity, is in itself sufficient to show that no such well did there exist in 1861, but that the well put down by Brown, Harrington & Chamberlain, in the Spring of 1866, was the first Driven Tube Well ever known there.

It was, perhaps, unnecessary to treat this claimed Independence well at such length, particularly after the decision of Judge Blatchford in the Cross case, in which he uses the following language :

> " As to the Driven Well alleged to have been
> " put down at Independence, in April or May,
> " 1861, it is quite clear that the witnesses who
> " testify to that date are mistaken, and that
> " the well in question was put down in May,
> " 1866. The evidence to that effect is very
> " complete and detailed and minute."

But because of the desperate effort of defendant's counsel, by the production of fifty or sixty additional witnesses, to bolster up the date, by testifying, with more or less distinctness, to having seen in existence on the northwest corner of Block 3, in 1861, *a* well of *some* kind, we have considered it proper to thoroughly refute the testimony, and to show its absolute inconsistency.

NOTE.—Attention is called to the testimony of Adelbert Brown, (page 271, D. Q. 21, 24; xQ. 19, 23, 29, 31) and to the testimony of Ira Hazard (page 943, D. Q. 97), from which testimony it will be seen that *Hovey's patented invention* of putting down a pipe with coarse openings and pumping out the sand, and afterwards inserting a pipe having a point with finer openings, was made and used considerably antecedent to his claimed invention, and in the same *manner* in which he claims to use it, while Col. Green accomplished the same purpose of removing fine sand from among the coarser particles by the use of *one* screen only, which removed whatever sand in the immediate vicinity was fine enough to pass through the openings. Both these systems accomplish the result that Hovey's patent aims at, and the *one* in *precisely* the same manner that *he* adopts.

The rule of law is that to void a patent the evidence of prior use must be such as to establish the fact beyond all reasonable doubt. We have not only shown that it is not only *doubtful* that such a well was made in Independence in 1861, but have shown facts which render it morally impossible that such should have been the case.

As to the Independence well, the appellants are safe under either of two positions. First—If the alleged well at Independence was made as claimed by defendant, in 1861, it was as most of their witnesses say, a temporary and soon abandoned "experiment," and it must therefore be regarded as within the category of the lost arts, or as an abandoned and fruitless experiment of no avail against a subsequent inventor, who, in good faith, without knowledge of such experiment, had obtained a patent. Second—It undoubtedly was not made until 1866; the Court must hold that this defense has wholly failed.

V.—*The Warsaw Well.*

The alleged Warsaw well, claimed to have been made by Timothy Buxton, at Warsaw, New York, in 1859, is not referred to in the opinions of the Court below, nor is it referred to in the brief of Mr. Lake, which was prepared for filing in this case at the last term; in this case, defendants examined four witnesses concerning this alleged will to wit: Timothy H. Buxton, Chancey C. Buxton, Hiram E. Adams, and Jabez E. Warren; their testimony is found in Vol. II. of the record, pages 1113 to 1258; these same witnesses, and also four others, were examined concerning this alleged well in the case of Green *v.* French, and their testimony was commented upon, and analyzed at length, and overruled by Judge Nixon in that case; this well is correctly described as a Driven Well, and belongs to the second class, which we have characterized as misplaced as to date.

Timothy H. Buxton, the principal witness, says, that it was made in 1858, but fails to give any circumstances, or written memorandum, to fix the date, except that he says that Hurd's planing mill was destroyed by fire, in the Fall of 1858; it is conceded that the fire was a notable public event, and occurred at the time stated; Mr. Buxton testifies that at that fire he remembers he was present, and that this driven well was used, until pumped dry, to supply water for the purpose of extinguishing that fire; and Adams testified to the same effect. *Mr. Buxton* testifies also that some time after that date, *John West* made another driven well for him on the same premises, but his memory is too poor for him to swear positively to *any one year* in which West put down that subsequent well. *Mr. Buxton* also admits, that the Hurd Mill, which was rebuilt after the first fire, was again burned down at a later period. He says he had no interest in it, and cannot tell when the second fire was, although he was present at it. *Buxton* is very positive as to the mode of construction, but very weak on the dates. He says he hired *West* to put down another well, but is unable to state on what date the well was put down by *West*. *Buxton* says, that when he and *Adams* had their *first* talk about their testimony, there were some things which *he did not remember* as Adams did. That Adams said it was 1858, but that he, Buxton, thought it was later than 1858. He is unable to tell when his new shop was built, but thinks it was somewhere between 1860 and 1864. *Mr. Buxton* also says that he was present when *John West* put down the second Driven Well for him. To show the untrustworthy character of his memory, he said that he had some machinery run by power in his shop, "*very soon* after we went on Main street." And he afterwards *corrected* that answer, and says that he meant to say "10 *or* 12 *years* after instead of very soon." At page 1170, Vol. II, of the Record, occurs the following: "Before signing his deposition the witness desires to make the following correction, in answer to question 20, "ten or twelve years" instead of "very soon." "In answer to question 22, A new engine was put in in 1858, and we had it repaired in 1864"; this latter answer is in correction of his answer to questions 21 and 22, in which he said, I think we put in a new engine; "I am not sure but what we had this one repaired." "Q. 22. About what year was this? A. In the Summer of 1858." *Buxton's* chief reason for thinking the well was made before 1859 is because, he says, that the well was used in putting out the fire at Hurd's mill, and he thinks it was the first fire which took place in 1859. Now it is in evidence, and conceded, that the second fire which destroyed Hurd's mill, took place on the very day 6 years later than the first one. *Adams* so says, and also that he was at both of them. Now it is quite possible, and highly probable, that a mistake of 6 years as to date of the Buxton well was made, and that the driven well was used at the *second fire*, and *not at the first*. The witness *Warren* states that he saw an iron cistern pump on top of what he supposed to be an iron tube at Buxtons in the Summer of 1860; he does *not know anything about the construction of the well.* On cross-examination, he says, that the next time he saw a driven well *John West* was making it in 1863, or 1864. *Chancy C. Buxton*, page 1223, Vol. 2 of the Record, says, that there was a pipe-well—a pipe driven down, and a pump attached to it in the Summer of 1858, back of the blacksmith's shop. "Q. 45. Do you know who put down this drive well? A. I do not. Q. 46. When did you first observe it? A. In the Summer of 1858, some time." In answer to Q. 49, says he cannot tell how long it was used. At xQ. 220, page 242 of the Record, *Chancy Buxton* says, that he does *not know* of his own knowledge what tools and appliances were used in the *construction* of the *first* driven well; in fact, all he knows about it is contained in answers from questions 40 to 46 inclusive, in which he says that there was a Driven

Well there in 1858, but he does not pretend to describe, or know anything about how it was put down; so that the construction and operation of this well rests wholly upon the testimony of *Timothy Buxton* and *Adams*. They produce no *contemporaneous* memoranda, or drawings, or model; they have a mere unaided memory going back 22 years. In the case of Green *v.* French, above referred to, complainants in behalf of the patent examined *C. P. Hurd*, *Ira M. Hurd*, *A. J. Armstrong*, *E. R. Benson*, *C. W. Bisby*, *McClure*, *John West*, and *Charles P. Williams*. In the case at bar, complainants examined the same witnesses. *C. P. Hurd* says, that the well Buxton had near the blacksmith shop was an *ordinary* stoned-up well with an iron pump and pipe; that the Hurd mill was burned in October, 1859, and also in October, 1865; that the first driven well he ever saw was made by two strange men in front of the Brick Hotel horse barn, and that there was considerable talk of its being new and cheap. That he had constant access to the Buxton premises, and that he never saw any driven well outside of the blacksmith shop at Buxton's; that he does not think it could have been there without his seeing it. He distinctly contradicts the statement of *Adams* and *Buxton*, that there was a line formed of men with pails to put out the fire of 1859, that destroyed his (Hurd's) mill; that he was present at the burning of the mill in 1859; that he did not see any water used for the purpose of extinguishing the fire, and that he did not pump any water from any pump or well back of the blacksmith's shop to be used for that purpose. *John West* says, that he is acquainted with the Buxtons and their premises, and has known the Buxtons for 27 or 28 years: that he had been engaged in putting down Driven Wells since 1865. Q. 9 and 10, Record, page 540. That he *first* saw a Driven Well in 1865, in Warsaw, in July or August; that it was put down by three men from Bath; that he saw this well driven; that he should think there were 100 persons present; that the well was talked about by the people as a novelty; that there were a great many talking about it; that he had never before heard of there being such a well in Warsaw; that he had lived in Warsaw for 28 years; that about that time he obtained a right under a patent to drive wells, and that he has made perhaps from 75 to 100; that he made three driven wells for the Buxtons, one at the blacksmith shop, one a little southwest of the blacksmith's shop, and one on Main street, at a private house. I quote briefly from page 541, Q. 23: "State which well you first drove? A. The blacksmith shop. Q. 24. State who spoke to you or engaged you, if any one, to drive the well in the blacksmith shop? A. Timothy Buxton. Q. 25. State, as near as you can, when you drove this well in the blacksmith's shop? A. I think it's 1867; in the forepart of 1867 I know. Q. 26. State, if you can, anything that Timothy H. Buxton said to you at the time he engaged you to put down this well at the blacksmith shop? A. He took me into the shop, and he showed me where he wanted the well; *asked me* IF *I thought I* COULD make a drive well there: I told him I thought I could; said he had a good well—a dug well—just outside of the shop, plenty of water, but it got dirty, and thought IF he had a drove well inside it would be better for the boys—handier. On cross-examination *West* says, that he got the right to put down these wells from Emmett Lake, and his partner; and that he believes that it was under the Suggett Patent; and on the same page (541) *West* says that *Buxton* furnished the pump and paid $17.50 for putting down the well. *Buxton made no claim to West that he had ever made such a well for himself, but paid full price for the wells West made for him.*

ARMSTRONG says, that he has lived in Warsaw 49 years (Record, page 545); that he is well acquainted with what is known as the Driven Well; that he *first* saw a driven well in *1865;* that this was his first knowledge of Driven Wells; that there were people coming and going to look at it all the time; that it was talked about very much; that he knew *John West*, and first knew of his putting down Driven Wells in 1865; that he himself, first began to use them in May, 1866. IRA N. HURD resides in Warsaw, and was formerly engaged in running a planing mill there, and was engaged in the business at Warsaw, 1859. Says (Q. 24, page 550) that he is acquainted with the Driven Well, and first saw one made in 1864 or 1865, in Warsaw; that he never heard of them before that time; that a large crowd of people there talked of its being a *novelty*, and a *new* invention. In answer to question 28, that he was engaged at the Hurd Mill in 1859; that he never saw or heard of a Driven Well, then being at the west end of Buxton's blacksmith shop; that he never saw or heard of one in that year at the premises of the Buxton's; that if there had been a Driven Well there on those premises, he thinks he should have known it; that a Driven Well could not have existed and been in use outside of Buxton's blacksmith's shop at the west end of the same during that time, without his knowledge.

MCCLURE, page 556, says, that he *first* saw a Driven Well in 1865, the latter part of July, or first of August, in Warsaw; that the well was made on Genesee street, and that there was a large number, he should say 100 people, looking on when they drove that first well; that it created a great deal of excitement; that be can say that a large number were willing to bet their money, that they could not get water through a pipe in that way; they had never heard of such an idea; it seemed preposterous. In answer to question 16, page 557, he says, that in 1865, *John West showed him his contract*, and told him that he had the right to put down these wells in the town of Warsaw.

Benson says, that he resided (page 960) in Warsaw, from 1851 to 1868, and was acquainted with the Buxtons, and worked for them; that in 1858 he occupied a portion of a room on the Buxton premises, and occupied it for two years; and, in answer to questions 38 and 39, he says, that while at the Buxton's he obtained water back of their blacksmith shop by a force pump placed in a *dug well*, that was stoned up, probably two and one-half feet in diameter. In answers 46 and 47, he says, that water for the boiler and engine was taken from the race under the shop; all the other water was from the pump in the dug well described, at the back of the blacksmith's shop. And in answer to question 93, he says, if there had been any other well or pump outside and back of the blacksmith shop he would have known it; and that there was no other than the one described as a force pump in a stoned up dug well. In answer to question 97, he says, that the first Driven Well he ever saw or heard of was driven in front of the Bingham Hotel, in the village of Warsaw, in 1865 or 1866; that, he understood was put down by Patent-right men; he thinks John West and John Lindsley; that there was a large crowd there while driving, which continued there after it was driven; it seemed to be a novelty, a general resort for the people; it was put down there for exhibition; it was the general topic of conversation, and spoken of as a novelty. In answer to Q. 102, he says, that he had not heard of anyone before that time, state or claim that he had ever seen or known of any such well in Warsaw. At page 981, redirect question 2, *Benson* says, that he was present at the fire in the Fall of 1859, when the Hurd mill was burned; that probably 100 people were present before the building was burned down; that he himself obtained water from the *creek*, and put it on the fire; that the only water used for that purpose, that he knows of, was obtained from the creek and the race; that he did not see anyone pumping any water from any well to put on that fire.

Williams lived in Warsaw from the 25th of March, 1858, until the first of March, 1866; was in the employ of, and a part of the time in partnership with, *Buxton;* that he was in the employment of C. T. Buxton during all that time at their premises. There was a wood shop, painting shop, trimming shop, machine shop, blacksmith shop all in one building. In answers 18 to 23, he says, that while he was there, water for use in the shop was obtained from the well and mill race; that the well was on the south side of the blacksmith shop; that it was an ordinary dug well, walled up with stone, and it had a pump; I think there were several different pumps at different times; that he has no recollection of ever seeing any other well, or pump, at the west end of, or near the blacksmith shop; that if there had been any other well or pump there, he would have seen or known of it; that he obtained drinking water from the well described while in the employ of C. T. Buxton. In answer to Q. 31, page 986, he says, that the Buxtons had a driven well put down in the blacksmith shop, about the Fali of 1867; that it was superintended by *John West;* that he is acquainted with driven wells, and that the one put down in the blacksmith shop is what is commonly known and called the driven well; that he never saw any other driven well on the premises except the driven well made by West, and the dug well previously described; that the first driven well he has any recollection of was put down near the Bingham House, in Warsaw, on Genesee street, and believes that it was in 1865; that the Driven Well put down near the Bingham House was much talked of as a new invention; and that when that well was put down he did not hear anyone make any statement or claim that he had ever seen or known of such a well being in the village of Warsaw before that time.

Calvin W. Bisby says, that he resided in Warsaw from 1849 to 1878, and worked as a carriage builder for the Buxtons from 1849 to 1870, and was continuously in their employ during that time, except for a few months; that there was a well, southwest of the blacksmith shop, a common dug well; after the shop was extended there was a well dug south of the blacksmith shop, in which there was sometimes a wooden pump, sometimes an iron pump; that he knows of a driven well put in by *West;* that he was constantly at Buxton's during the year 1858; that he never saw or heard of any other Driven Well upon Buxton's premises other than the one made by West; that if there had been he could not have failed to see and know it. A. 51; that the first Driven Well he ever saw or heard of on the Buxton premises, was the one put down by West. In answer to Q. 56, he says, that West, at the time of the putting down of the Driven Well at the Buxton shop, claimed to own a Patent right upon the process or well, and that when the driven well was put down on Main street, it was the first he (Bisby) had ever seen or heard of; it was treated as a new thing; and that he never heard any one before that time claim to have used or seen a similar well in or about Warsaw, or elsewhere.

But it must be needless to dwell any further upon the numerous uncertainties and contradictions; the Court cannot escape from the conclusion that the defendant's witnesses either *misplaced* the well by a number of years, or that the alleged well of 1858 was a mere figment of the brain. In his decision of the case of Green *v.* French, Judge Nixon, in commenting upon this alleged Warsaw well, said: "The patent being *prima facie* good, the burden " of proof, on a question of anticipation, is upon " the defendant. Does the rebutting evidence of " the complaint suggest a reasonable doubt of its " truth? He has summoned a number of witnesses " but it is sufficient for the purposes of this case to " refer to the salient points of the testimony of a " few of the more important. In the first place " these witnesses were all old residents of Warsaw

" and they agree in the statement that the first
" driven well they ever heard of in that town was
" put down in the street in front of the barn of the
" brick hotel property, in the Summer or Fall of
" 1865, and that it attracted much attention at the
" time; was discussed by the citizens generally as a new
" invention. In view of the number of witnesses who
" now testify to their knowledge that Buxton invented
" and sunk another driven well of the same construc-
" tion, as early as the year 1858, or 1859, it seems rather
" singular that no one then remembered or advert-
" ed to the fact of its previous existence and use in
" the town; in the next place *Elihu R. Benson*,
" *Charles P. Williams* and *Calvin W. Bisby* were in
" the employ of the Buxtons in their manufact-
" uring establishment, for a number of years, includ-
" ing the years 1858 and 1859. They were on the
" premises daily, and give intelligent accounts of the
" sources whence they procured water for carrying
" on the work of the manufactory; they severally
" testify, that no *driven well existed there to* their
" knowledge, and they do not understand how it
" could have been there without coming under their
" observation. *Chester B. Hurd* and *Ira N. Hurd*
" were in the lumber trade, in connection with the
" firm of Hurd & Gates, whose place of business was
" immediately in the rear of C. & T. Buxton; their
" mode of access was along a fifteen foot lane or alley
" over the Buxton premises; they were thus obliged to
" pass and repass to and from their meals every day;
" their occupation also made it necessary for them to
" visit the shops of Buxton daily; they distinctly re-
" member the dug well—an ordinary stoned well—
" near one corner of the blacksmith shop, but they
" never heard of a driven well, in Warsaw, before
" the year 1865; if there had been one on Buxton's
" property, they think that they should have known
" and remembered it. The testimony of *John West*
" renders it still more incredible that a driven well
" existed in Warsaw in the year 1859. He states that
" he has lived in Warsaw for 28 years past, and he

"has never heard of a driven well there until the "Summer of 1865; then two or three men came over "from Bath or Pennyan, put down one on the Brick "Hotel property; that it excited great attention as a "novelty; 100 men or more being present; that he "obtained the right to drive these wells in Warsaw "shortly afterwards, and put down in the town from "75 to 100 wells; that Mr. Buxton employed him to "sink 3, in different places, on his property, one of "which was in his blacksmith shop; that he paid him "the usual royalty for the patent right, and that all "this occurred in the early part of the year 1867; "the circumstances attending the sinking of the well "in the blacksmith shop are so inconsistent with any "theory that Buxton had previously invented and "used a few feet distant, for several years, a driven "well, that I quote his [West's] statement of what "took place. The witness said: "He (Buxton) took "me into the shop and showed me where he wanted "the well; asked me *if I thought* I *could make* a "drive well there; told him I thought I could; said "he had a good well, dug well, just outside of the "shop; plenty of water, but it got dirty, and "thought if he had a drive well inside would be better for his boys." Such evidence greatly impairs "the force and value of the testimony offered to prove "the prior invention and use of the driven well. "Green's invention was in the year 1861. Buxton says, "that a few years elapsed—how many he could "not say—between the time of his sinking the first "driven well and the date when West put down the "second, and he is unable to indicate the year when "the latter took place. Nor does he attempt to explain "why he paid another a royalty for the privilege of "using his own invention. A memory so defective as "to allow its possessor to forget, in a few years, that "he had made one of the most *remarkable inventions* "*of the century*, cannot be depended on for accuracy "in the statement of transactions which took place "20 years ago."

VI.—*The Tallman or Preble Well.*

This well, if it ever existed, belongs to the above styled third class ; that is, the description of it is so vague and uncertain that it is impossible to determine what kind of a well it was or how it was made. Of course, if it be vague and uncertain as to construction, it cannot have any value as an anticipatory construction. This alleged well, was set up in the case of Andrews *v.* Cross ; and a number of the main depositions in this case were also used in the Cross case—notably the witnesses MOSES T. TALLMAN, and ABRAM VANDENBURGH, and JOHN D. F. WOOLSTON.

It is claimed by defendant that WILLIAM TALLMAN, a brother of Moses T. Tallman, made a Driven Well on his farm, in the year 1859 ; the brother who is said to have made it being dead, was not examined. MOSES T. TALLMAN says that he was not present when the well was made ; not there when it was put down ; and again repeats that he was not there during the operation of putting it down; that he was there within a few days or within a month after the time it was put down. He says that a pipe was inserted in the ground at the bottom of the well, which was 12 or 14 feet deep and stoned up. That there was a pump attached to the upper end of the pipe ; and that there was a windmill connected with the pump ; and yet not having seen the well constructed, he was rash enough to testify concerning the distance that the pipe projected down into the earth from the bottom of the well.

It appears from his testimony that this was the first windmill erected in that section of the country and that it excited a great deal of curiosity ; that it was the mill and not the well that caused the curiosity.

Then the witness professes to produce the actual pipe which had been used in the well ; and an examination of the testimony of the witness shows that he is utterly unable to know certainly that it is the pipe. He said that the pipe used was five feet long; the pipe produced is only twenty inches long; he nowhere pretends to say that he knows when or by whom the pipe was taken out of the well, or that it was even taken out at all; does not even know what has become of the windmill; has not visited the well since the windmill was blown down and discontinued. All he knows about the pipe, that he says was the original pipe used in the well, is, that his brother brought a large quantity of old iron to the witness's house in the Fall of 1864; that there were more than two wagon loads of things; he did not care to take it to his new residence in Syracuse; that there was a lot of old iron and stuff left in the barn and wagon house; that there was about 1,000 pounds of old iron which he did not think worth taking to Syracuse, and that he did not take special notice of this pipe at the time; and yet twenty years afterward he produces a piece of pipe twenty inches long, and speaks about the great value of that piece of pipe, of which no care or notice had been taken during that long period, and says that it was the identical piece used in the alleged well of 1859. Preble is about nine miles from Cortland; Tallman, the witness, was in the habit of visiting Cortland frequently; there was a railroad between the two places; Cortland is the county seat where Green, at the time of his invention, lived; witness knew of and read in the newspapers of the interference between Suggett and Green; the matter had acquired public notoriety in Cortland, and heard it talked about in Preble. He says that some six years before 1875 or 1876, when his attention was first called to the significance of this piece of pipe, he cut off two pieces of it, and he did not remember what use he put them to, and that two years later he cut off a third piece to fix a land roller; that none of these pipes are now in use; he cannot produce them, and "don't know where they are now, and has not seen them since 6, 7 or 8 years ago or longer." He admits that he told one Blanchard about two or three years ago that that piece of pipe was worth $100,000 to those opposed to the Driven Well. Vol. 2, Rec., p. 1289; xQ. 201.

The whole story is incredible; a well which he states was a curiosity in 1859, the construction of which he pretends to have understood, which became, to his knowledge, a subject of discussion as far back as 1865, as to who was the first inventor—Green or Suggett—notorious in the newspapers, and yet he had this piece of pipe in his possession, which he now regards as worth $100,000—and yet took so little care of it; cut off portions of it—used it for purposes that he does not remember—these facts render his whole statement manifestly unworthy of credence. Of course it is utterly immaterial as to whether this piece of pipe was used in the well or not; we refer to this only for the purpose of showing the recklessness of this witness in testifying as a fact, of his own knowledge, that the pipe which he saw at his brother's was the same pipe used in the well, and the same one that was dumped with a lot of other old iron into an outhouse, and the same one now produced. This same "straining of conscience" caused him to testify that this was a Driven Well; and yet this man testifies that he has no bias, or no feeling, and yet guards sacredly this iron relic for some purpose so carefully that he would not permit it to be put formally in the evidence, only to be marked for identification. He says the first time he saw this well it was stoned up from the bottom; that there was a pitcher pump above the surface of the ground used with the well; that he did not go down into the well; that he did not look into it. That he cannot state how long after this it was that he went the second time; that he was at the well once or twice after the windmill was attached; that it was a short time after the windmill was put up; that he did not go down to examine the well; that he cannot say he examined it before the windmill was erected; that he thinks he never was in the well but twice; that he did not see the pump pipe put together; was not present when it was done; does not know where he was; does not know who did it; cannot state how the pump and pipe were attached, together; when or where either of the pipes were connected with the pump or the pump to the timber; that he cannot identify the pipe which he says is in his possession with the one which he says he saw in the well; does not remember they had any name for the well other than it was called the "windmill well." This witness **Tallman** is put forward as the principal witness who "knew all about it."

The defendants in this case have called a large number of cumulative witnesses who were not examined in the case of Andrew *v.* Cross, in which Judge Blatchford overruled the defense of the Preble well. The following facts are clearly established in the vast mass of proof relating to this alleged well:

First.—That no one witness has described clearly and certainly the making of a driven well in the bottom of Tallman's open and dug and stoned up windmill well.

Second.—No number of witnesses have described the successive stages of making a well there which, if put together, would show a driven well made by the Green process.

Third.—That although Tallman and Vandenburgh and another say that there was no water in the open well when the iron pipe was used, we show by our witness **Getman** who dug and deepened the well, and was there during the entire time of its making, that there was plenty of water in the open well, and continued to be for at least two years afterwards; by our witness **Klock** who occupied the farm within six months after the well and windmill were completed and for four years afterwards, that there was always water in the open well, and by our witness **Ballard** that there continued to be plenty of water until it was filled up and destroyed by a freshet some years later.

Fourth.—We show by numerous witnesses that when the dug well was reopened in 1880 there was, during the driest time for years, seven inches of water.

Fifth.—It is a very significant fact that among all the witnesses who visited the windmill well, none of them ever heard of its being claimed as a driven well or called a driven well until about 1875, after driven well litigations had been going on for nine years within eight miles of their locality.

Sixth.—While a number of witnesses for the defense testified that WILLIAM E. TALLMAN told them that he was *going* to drive a pipe, or *had driven* a pipe in the bottom of his dug well, none of them testified to having received from Tallman such a description as if combined, would have enabled them by following it, to have made a driven well like Green's. WILLIAM E. TALLMAN said to Counsellor Lewis, in 1877, that he never claimed to have made a driven well ; never thought he had done so although ex-Commissioner of Patents Duell had been writing to him, and his brother Moses had got excited in consequence of being told that that old piece of pipe was worth $100,000. Said *W. E. Tallman* told *Lewis* that he did not think he should pay any attention to it ; he thought there was nothing in it. (See deposition of *Ceylon H. Lewis*, vol. 1, page 390, Q. 7.) *Mr. Lewis* says, that he is a lawyer, having his office at Syracuse, N. Y.; that he had a conversation with *Wm. E. Tallman* in regard to the well made at Preble operated by a windmill ; and that this conversation was in the Summer or Fall of 1867. (See answer to Q. 9, which gives the substance of the conversation between Mr. Lewis and William E. Tallman.) We quote from this answer as follows: "I ask him to explain to me in regard to the "well, and he said that he dug a well there and "sent on and got a windmill pump and put it in, "but that the water was not exhausted. He dug "down deeper, got a piece of pipe and had some

" perforations made in it, and put them into the well. " Then he told me how he attached the pipe that was " already in the well, by winding some rags and " using some pitch when the joint was made by " their coming together, and that he then made a " sort of basin there for his cattle and got plenty of " water. He said that his brother had written him " or seen him in regard to it, and that his brother " seemed somewhat excited over it, but that he did " not think it worth while to take any steps with " regard to it. That is the substance of that con- " versation as I remember it." "(Q. 10.) You saw his brother; please give his brother's name if you know? A. He said his brother *Moses* down there at Preble."

"11 Q. Was this pipe put in to lengthen the pipe " so as to reach the water after digging the well " deeper, as you understood from that conversa- " tion?

"A. The idea that I got was, that he had this " short pipe in order to reach the bottom of the " well after digging it deeper."

The cross-examination of Mr. Lewis confirms the statement made on his direct examination which I have quoted.

In Judge Blatchford's decision in the case of Andrews against Cross, that learned Judge used the following language: "The evidence as to the " Preble well fails to establish its existence as a " driven well, or one in which the process of Green " was developed. The alleged inventor, William " E. Tallman, is dead; his brother, Moses T. Tall- " man, did not see it constructed; all the facts testi- " fied to about it, and the remains presented, the " punctured piece of pipe, the copper strainer, and " the section of iron stove pipe open at both ends, " are at least as consistent with an apparatus for " filtering the water in the dug well in question, " while pumping it up, as with the driven well; " with the copper strainer on the punctured lower " end of the pipe, where it probably was, if the

" pipe was in the well at all, there could have been " no driven well, in the sense of Green's well; if " there were sand in the bottom of the well, which " was likely to be drawn in through the punctures " in the pipe, when used in the dug well, if those " punctures were at the bottom of the well, raising " up the pipe might raise it above the supply of " water, when the water was low; but putting the " strainer on the end of the pipe and surrounding " the strainer with the section of stove pipe, would " keep out the sand even when the water was at " the lowest, and permit the water to pass, and, " when the water was high enough to pass through " the punctures in the pipe, it would be so far " above the sand as to be clear of the sand; all the " evidence of Moses T. Tallman goes to show that " the well was not a Driven Well, and that there " was not in it any such process embodied as that " of Green; the testimony of Abram Van Denburgh " is not entitled to any more weight; on the other " side the evidence is overwhelming, that there was " and could have been no Driven Well at the time " and place in question."

We here insert a more detailed statement or analysis of the evidence relating to the so-called Preble Well.

ABSTRACT OF EVIDENCE CONCERNING TALLMAN'S WELL, AT PREBLE, N. Y.

In relation to the Tallman well, at Preble, N. Y., defendants' witness, Moses T. Tallman, brother of Wm. E. Tallman, who is claimed and is conceded to have made a well upon his farm in 1859, says that a pipe was prepared which he saw, in the possession of his brother, which, he says, was made of 1¼ inch gas-pipe, and was originally about 5 feet long, and with the end battered up so as to nearly close the hole, and for 12 inches or a little over holes were drilled or punched in through the sides of the pipe (D. Q. 3 to 7), which was inserted in the bottom of a dug well 12 or 14 feet deep, which was stoned up; the upper end of the pipe was 18 inches above the bottom of the well; then a pump attached to the pipe—a suction and force pump—then a lead pipe from the force pump to a short distance above the surface of the earth; the pump was operated by an iron rod, extending from a windmill over the well down to the pump; the rod operated the piston of the pump, and forced waters to the surface; the bottom of the well was level and dry, as need be, no water visible except what was pumped up (D. Q. 13 and 14); he produced a pipe said to be the same, which was 20 inches long, and perforated 20 inches from the bottom, from which, he stated, he had cut off two pieces to make a coupling for a land roller (D. Q. 28 and 29); knows that it is the pipe, because he saw it before it was put in the well (D. Q. 30); could not tell the exact size of the well, but it was large enough to put a ladder down, and go down at will (D. Q. 33), and that he had been down in the well two or three times for the purpose of packing the pump (D. Q. 35); the pump was run by windmill, which, he thinks, has not been running since 1863.

(Cross-examination); the pipe he produces as being the one he saw, before it was put in the well, was left with a large quantity of old iron, etc., on his place by his brother in the Fall of 1864, and his attention was first called to it about 1876, twelve years afterwards (xQ. 42 to 45); is not positive whether the windwill was put up the same season that the well was dug; Abram Van Danberg assisted in putting up the windwill (xQ. 73); he does not know who assisted in digging the dug well (xQ. 74); there was previously a pump and a well operated by hand with a lead pipe attached to the pump (xQ. 82–85); says he went down in the well to repack the pump, and his brother, Wm. E. Tallman, assisted him (Q. 119–122). If, as he stated, this pump was near the bottom of the well, and his brother assisted him in packing it, it involves the absurdity of two men working in a well twenty-six inches in diameter, working at a pump standing in its center, and he should be able to show a more reasonable statement of the case. In regard to the size, height of the frames, and the various attachments in which the defendant's witnesses disagree, we shall pass them by, except his statement that the connecting rod, from the well to the pump, was of iron (xQ. 143). Others, as will be hereafter shown, stated positively that it was of wood, which is but another example of the unreliability of witnesses in testifying to such matters after so long a period of time. The windmill attached to the pump was the first he ever saw put up in that valley, and was regarded as a novelty (xQ. 153). Don't know whether the pitcher pump was used after the windmill was erected; does not know that the dug well was sunk deeper after being first put down. Never saw it done, and has no recollection of it (xQ. 157-160). Mr. Klock worked on Wm. E. Tallman's farm from the Spring of 1860 to the Spring of 1864 (xQ. 162). The so-called Driven Well, he says, first attained notoriety, when Suggett and Green were first disputing about the patent (xQ. 184). Cannot tell how many years ago it was. (The interference contest was in 1866.) He heard the matter mentioned in Preble of the Driven Well, alleged to have been discovered in Cortland village. Could not say how frequently (xQ. 194-195). Mr. Porter, a lawyer of Homer, said the piece of pipe he had was worth $100,000 to owners of Driven Wells, which statement he had repeated to a good many, when Mr Blanchard requested to see the pipe and he refused to let him see it (xQ. 199-201). (We particularly call the attention of the Court to the fact that as Tallman has testified, the contest between Suggett, Green & Mudge was publicly going on at Cortland, but 8 miles distant from the residence of the witness, and his brother, Wm. E. Tallman, at which time, within a few years of the making of this well had it been a Driven Well the attention of all the parties would undoubtedly then have been called to it. And this attempt to clothe this old pipe which bears but a faint resemblance to a Driven Well tube, with the attributes of Green's invention, was evidently an after thought, and instituted for the purpose of getting some portion of the $100,000 which Mr. Porter told him was its value.) He did not see the pump attached to the pipe in the well (xQ. 229). Does not know who put the pipe in the well, and cannot say exactly how it was attached (xQ. 233-234). Does not know where the pieces he cut off the pipe are, nor that he has seen them in 7 or 8 years (xQ. 236-237). They had disappeared before his attention was called to the significance of this remaining section of pipe, here produced (xQ. 238). The witness has now two, and has had three driven wells upon his farm. Mr. Dunham, of Homer, put down two of them. Being asked when he got him to put them down, he asked "Am I bound to answer such question ?" An answer being insisted upon, he says "I have no memoranda to fix the date." His best recollection would be, it was in 1861, '62, '63, it may have been in 1860 or '61, as far as he remembers. He thinks it was in one of the years from 1860 to '63, but which he cannot state. He applied to Mr. Dunham to put down the well, and thinks he furnished pipes, and pumps. It was a shallow well in the basement of his barn ; thinks he paid him $11 (xQ. 239-246). One of witness' boys assisted him, and was less than a day putting it down. He did it for so much a foot. Dunham was engaged in putting down driven wells (xQ. 248-255). Having produced his account book to verify his statement of date, which he did by alluding to a sale of wheat to Klock, found on his book, as being the only one he ever made to him, by which he established the date. On examination of his account, another sale, of a much larger amount, was found upon the same book 4 years later to the same Klock (xQ. 270-271). This matter has no bearing upon the case except of showing the unreliability of the witness' recollection. He made an examination of his books, and produced his account to render this section of pipe of significance or value in connection with the driven wells (xQ. 283). The attention of the Court is called to his cross-examination (from xQ. 286 to 287), as exhibiting the unreliability of his account, and the statements made as based thereon. He states that he stood upon the bottom of the dug well, when assisting his brother to repack the pump. and there was not any water in the bottom of the well (R. D. Q. 12, 13). Says that the pipe was solid in the earth, in the bottom of the dug well. The connecting rod, he says, was about 25 ft. long. Don't remember any guides (R. D. Q. 16). He states that Wm. E. Tallman's knowledge was good on most any subject. It was good on building and constructing, also in inventing (R. D. Q. 25). (The particular attention of the Court is called to the photograph of the piece of pipe asserted to have been driven into the ground by Wm. E. Tallman, as a sample of his building, constructive and inventive faculties, in pointing a pipe for that purpose.) This well and windmill was called "The Windmill" (R. D. Q. 30). Wm. E. Tallman obtained a patent for an invention 4 or 5 years previous. Did not of his own knowledge know that the pipe was driven in the ground (R. D. Q. 8-12). Could not identify the pipe in the ground as being the same one he had seen in his brother's possession (R.xQ. 13). Wm. E. Tallman had a good mechanical mind, a good general knowledge of mechanics (R. xQ. 16). After describing the attachment of the pump to the timber, and the pipes to the pump, he states that he does not, of his own knowledge, know anything about it, and that he answered the questions because it was the common way of doing it, and common sense (R. xQ. 37-41). He and his brother were both in the well at the same time, and he stood on the bottom. They went down into the well by a short ladder, which was left in the well while they were both down there (R. xQ. 45-47). (This well, which was shown to be but 26 inches in diameter, with a plank extending from its top to its bottom, to which was attached the pump, a ladder by which they went down, and two men standing upon the bottom to work at the pump, is a combination of circumstances hard to be understood.) Asked why he refused to allow anyone connected with the patent to see and examine this piece of battered, rusty, perforated old pipe. Whether it was from any fear that they would change, alter or damage the article, or what was the reason? He replied, that he was advised by counsel, R. H. Duell, to keep it from the Green men, or they would steal it, or send a man to steal it if they could. He was asked if he was afraid that Mr. Blanchard would steal it. He said he was merely acting under instruction of counsel, and further than that, he said to keep it as choice as the apple of his eye (R.D.Q. 50-51).

Abram VanDen Burgh, for defendant. A carpenter and joiner. Knew Wm. E. Tallman living in Preble 23 or 24 years ago. A brother of Moses, who was recently sworn in same case. He is said to be dead (D.Q. 2-10). Was employed by Tallman to do millwrighting, to put an addition to his house, working on his barn. Built a windmill pump for him, and other carpenter and joiner work (D.Q. 15). He describes the frame for the windmill which he erected over a dug well, which was between the timbers which form the frame (D.Q. 18, 19). Thinks the frame stood directly over the well (D.Q. 21, 22). Could not tell how long he was making it, or who helped him (D.Q. 25, 26). A windmill was used on the frame for pumping water (D.Q. 27, 28). The windmill had a large wheel, running with wings; could not give the diameter; it was a large wheel. It was hung on the upper girting—girts that were framed on top of these posts. Boxes in which the shaft lay, were bolted on top of those girts. The shaft was 6 or 7 feet long, as near as he can recollect. Could not tell whether any means were provided for the windmill to accommodate itself to the change of wind (D.Q. 29-33). The well was a dug well; he should say 3½ feet across the top, and roughly stoned up. It was dry; he never saw any water in it. Saw earth, stone, and an iron pipe in the bottom. The iron pipe was driven in the bottom near the center. Saw the end of the iron pipe up out of the ground about 2 feet. Could not swear whether there was a screw thread on the upper end or not. It might have been an inch and a half to an inch and three-quarters in diameter (D.Q. 36-40). The water was obtained by the windmill from this iron pipe. A pump attached to the pipe. The pump was fastened to a timber, either gripped or bolted; I would not say which. The timber stood on the bottom of the well, and fastened to the planking over the well (D.Q. 47-52). Helped Tallman put the pump in the well. "We went down in the well. Mr. Tallman let it down to me with a trace chain, then I set it into this pipe, then I came up to let him go down to see that it was all right, and then we set this timber down in, side of the pump, and the pump was fastened to that, but in what way I could not say positively" (D.Q. 56). Ask how he set the pump on the pipe, he says he could not recollect whether it was screwed, or fastened some other way, or whether it was fastened firmly on (D.Q. 57, 58). Mr. Tallman went into the well and fastened the pump to the pipe to suit himself, he being upon the platform, where he could see into the well. Understood he was fastening the pump so it would draw water (D.Q. 60-64). The rod from the pump was fastened to a pitman; it was a straight hard piece of timber 2 inches square, I should say 25 ft. long (D.Q. 66); (compare this with Tallman's statement that it was an iron rod); the pump and windmill drawed water very nicely; Mr. Tallman himself began in the morning by 6 o'clock, and when the bell rang for supper, he had just got the pump to draw water; when he set on the pump, he stood on the ground, on the bottom of the well, and there was no water (D. Q. 69-72); it pumped a nice stream, of about an inch or ¾ of an inch; it worked satisfactorily as far as anything he knew D.Q. 84–85); asked how the pump and windmill was regarded, he said they claimed it was quite a curiosity; whether Wm. E. Tallman made any secret of the well, or of the windmill pump, or apparatus connected with it, he answered, "Not as I know of"; a good many people came there; don't know whether they came for the purpose or not; could not say; heard discussion in Preble about it; it was argued that they could not get water enough to make it work; after the well was made it was publicly known and discussed (D. Q. 92–96); not a single witness was produced who ever heard any discussion about this being a Driven Well, and a large number of the best citizens of the neighborhood were produced by the complainants, who each and all stated that they never heard any claim of there being anything peculiar about the well; that it was an open, dug, and stoned up well, the peculiarity and curiosity about which was, it being worked by a windmill, which was the first windmill ever used in that valley; never heard Wm. E. Tallman describe how he made it; could not say how many head of cattle obtained water at the pump; they were driven to the barn to milk, and then went to the creek to drink; he worked for Wm. E. Tallman so long as he owned the farm, and whenever he saw the pump in operation it furnished a good supply of water (D. Q. 101–104). Asked to state as to Tallman's mechanical and inventive capacity, he answered, "It was good. I learned more of him than I did of any man about mechanics" (D.Q. 105–106); thinks the pitman was connected to the piston rod clamped, and bolted on to the wood (D. Q. 111); asked what the wings of the windmill were made of, he said, to the best of his recollection, they were made of wood, thin timber, he will not be certain; thinks they were reversible, but could not tell positively (D. Q. 124–125); thinks the timber put in the well was 6 in. by 3 in. (D. Q. 126); cannot give the names of any of the parties who helped (D. Q. 128);

when he first observed this pipe sticking up in the well, it was before he began the frame; it was queer to him, thought he was going to get water out of a dry well (D. Q. 132), says Tallman told him there were a good many holes in the pipe, and showed him the way they were put in; that he argued that they would close up with sand and gravel; that he told him that he drove the pipe in, and he said "the bottom of the pipe is on a level with the bottom of the lake, creek and springs, and there will be plenty of water." He told him he would put a cap of timber on the top of the pipe, and then set a hard-wood scantling on that; he told Tallman he supposed the pipe would kink and run sideways--so thin a pipe; he claimed that after so great a depth there would not be any large stones to kink the pipe, it would go down easily into the ground; he drove on the scantling with the sledge, he told me; the nature of the soil in the bottom of this dry dug well was sand and gravel earth (D. Q. 140-142). (Attention is again called to the photograph of the pipe); said there was sand and gravel pumped up with the water (D. Q. 144); could not tell exactly when the water became clear (D. Q. 146); James Ready, Jefferson; Getman and a man by the name of Hoffman worked for Mr. E. Tallman in 1859, but thinks none of them assisted in the building of the windmill or the construction of the well while they were working on the windmill (xQ. 48-58); the next Summer or Spring he repaired the wings of the windmill; 2 or 3 of the wings got off; he repaired it by putting them back, and making new ones when they were broke—new wings; could not tell the size exactly; might have been 3 feet long; that is the length of each wing; as near as he can recollect they were 2 feet wide; "I never measured them;" it strikes me they made of thin wood and eyes fastened to the wings and around the shaft, that they reversed on (xQ. 60-63); I put in new braces at the bottom of the frame a good while after; could not tell how long; might have been 3 or 4 years (xQ. 66-68); this was not the last repairing he did, he put in a new pitman of hard wood timber; it might have been over 2 inces square; same as the old one was; could not remember its length; it might have been 25 feet or only 20 (xQ. 69-73). (Defendant's Exhibit No. 6 shown witness.) He says, he don't pretend to know what there was below the ground; whether there were any holes in the pipe, as shown in the Exhibit; that he gave Mr. Suggett a description of the well to enable him to make exhibit; but did not give him a description of the pipe with the perforated holes (xQ. 75-77); what was out of sight in the ground, he knew nothing about; the references on the exhibit were made by Mr. Suggett; the well was nearly on a line of the two lots, a little north of the line of the two lots, from the east and west cross-roads; thinks it was in the second lot from the north and south road; there was no other well in the vicinity to his knowledge (xQ. 83-85); there never was any other than the one windmill over the well to his knowledge; and could not have been, he thinks, without his knowledge (xQ. 87-88); the windmill stood there a long time, with the wings off, and the wheels on (xQ. 90); he worked for Mr. Tallman as long as he owned the property; can't tell how long (xQ. 91); water was not obtained by any other means to his knowledge from the well, after the windmill ceased to be used, but is not positive (xQ. 97-98); asked if he would swear positively that any portion of the windmill, either its boxes, crank, hub-ring, eyes, arms, rods or wings, were made of wood, and if so, what part he is willing to swear to; he says, "he would not swear positively to any; it was the first and only windmill he ever worked on, and there is no possibility that he had got any other other windmill mixed up with this mindmill of Tallman's (xQ. 107-110); the frame, he states, was about 18 feet high and about 3 feet narrower at the top than at the bottom, and the windmill was upon the outer end of the shaft, which run over far enough to enable the wings of the windmill to clear the frame (xQ. 111–113). Again, he says the pipe below the bottom of the well he knows nothing about (xQ. 114); he says, the sketch, Defendant's Exhibit No. 5 F, is nearly correct; cannot state exactly (xQ. 116); asked if the joint between the piston rod of the pump and the connecting rod is properly located, he answered "nearly" (xQ. 125). "Then the well being 10 or 12 feet deep, as stated in the exhibit, the rod from the pump to the joint was somewhere from 6 to 8 feet long, was it?" "It might have been," "it might not"; I could not say positive. He could not state the length of the piston rod any nearer than he has, it might have been 6 or 8 feet (xQ. 125–127). Mr. Tallman and himself, and nobody else, assisted to put the pump in the well; asked how the pump could set on the end of a 1¼ inch pipe without fastening, while he went up to relieve Mr. Tallman, he says "it rested on the end of the pipe, and we did not release the chain, and I got up and held it until Mr. Tallman could have it" (xQ. 130); could not tell how Mr. Tallman secured the pump to the pipe; he shaped or worked it on, but whether there was a screw to it or not he could not say. Asked if he did not know that there was not a screw thread on the pipe, he answered, "I could not say positively." Could not say if he saw any screw on the bottom of the pump, or if there was any nut attached to it; did not notice enough to know how it fastened on, because he went down to the bottom on the ladder to steady it, and did not see the pump (xQ. 131–136). He says Mr. Tallman and himself fastened the pump to the timber in the well, and both were in the well doing it; there were timbers between the sills, planks spiked down on the timbers, with the exception of one, before they let the pump down; thinks the upright timber was not put on before the pump, but would not so testify positively, or that it was not fast in its place; don't know whether there were holes bored through the timber, or how it was fastened; Mr. Tallman himself fastened it (xQ. 141–151). Being asked whether (Mr. Tallman and himself being the only persons present, and Mr. Tallman being dead) there could be any other person now living who could give any information as to those matters, he replied, "I could not say" (xQ. 152). "I don't know whether there was any one there besides us; there might have been lots there that I don't recollect of." Asked if he had not before testified that there was no other person except himself and Mr. Tallman present during the putting in and fastening of the pump, he answered, "I think I have" (xQ. 153, 154); says his cousin Van Auken, who he stated in answer to D. Q. 88, when taken to see his Windmill Well and thought it a great piece of machinery applied his remarks to the windmill (xQ. 166); and his answer to D. Q. 92, that they claimed that it was a great curiosity, applied to the windmill also (xQ. 167). In answer to D. Q. 93, which was if Mr. Tallman made any secret of the well, he answered: "Not that I know of;" he was asked if any similar wells were now made, and if so, by whom, and where; could not say that there was any, to his knowledge (xQ. 168, 179); asked when he first heard of any claim being made that this well was similar to the Driven Wells originating in Cortland, he answered: "I could not tell whether it was a year, or two years ago" (xQ. 170, 171); asked when he next saw a Driven Well, "can't tell anything about when, or where;" his residence was within 8 miles of Cortland village, with a railroad passing through both villages, with several trains per day from one village to the other, and Cortland village the county seat of the county (xQ. 174); in answer to D. Q. 96, in regard to that being considered a new method of getting water, and whether it was not discussed as such, he answered "I do not know; it was new to me;" he was now asked whether whatever discussion he may have heard was not directed to the subject of the windmill, as being a new way of procuring water, he answered "I think it was" (xQ. 175); he fitted the boxes on the windmill frame himself, with Mr. Tallman's help, but is not certain he has not made a mistake in the manner in which the shaft was attached to the frame; does not wish to be understood that he is not certain as to the testimony he has given in regard to the windmill well and pump, what he means to be understood is, that he is not certain as to how the boxes were fastened, but thinks they were fastened to the girts, as represented in the drawing (xQ. 177-181). There was a guide to the piston rod through the floor, so it could not wabble. There was a hole through the planks, about the size of the piston, so it would play easily. He means through the planks that cover the well, thinks there was no other guide than the hole through the plank (xQ. 182, 184). Asked if the piston rod—then, must not have extended above the well, he says, "It did not come in sight above the planking." He don't wish to be understood that the piston rod had no guide, it did not come in sight, the joint was below the planking, and there was guides fastened to this timber, to steady the piston rod by (xQ. 185, 187). In answer to previous questions he did not calculate to be understood, that there was no guides to the piston-rod. He supposed they were now getting at the pitman (xQ. 188). The hole through the plank might have been 2½ inches square, as near as he can recollect. Could not tell the thickness of the plank, the pitman touched the sides of the hole partially which acted as a guide to it (xQ. 190-193). Asked to explain what he meant by partially, he said, "well, as it would not shove the piston-rod sideways, so as to affect the rod, so it would come down nearly perpendicularly." Asked whether that hole guided the pitman in any way, shape, or manner, he says: "The pitman might have come down all right without the hole; it was not intended to be a perfect guide." Asked to give a decided answer whether it did guide it or not, he said, "Yes." Reminded that he stated that there were several guides on the piston-rod attached to the timber, on the previous day's examination. He is now asked how many there are; he answered, "I can't say, and I ain't said several, neither." Can't say how many there were; thinks there was one—thinks he could swear there was. The question being repeated, does swear there was. Thinks it was an iron guide, but will not swear positively. Thinks he has as good a memory as folks in general. Refused to say where the guide was, or give any particulars about it, and would be positive of nothing concerning it (xQ. 194–207). Pressed to answer the question how far the guide was above the top of the pump, he said, he could tell no nearer than he had; that he had given it as near as he could; he never measured it and could not give the exact measurement. Asked what approximate measurement he had given, he said, "I don't know; can't say; can't tell any nearer than I have." Is unable to tell the exact distance. Asked how near he could tell, says he might tell within two feet, or perhaps a foot or 10 inches, may be; could not say positive. And still he swears positively there was a guide; that he recollects distinctly of there being a guide, and to his best recollection it was of iron, but would not be positive. "Cannot tell the distance," and that is what he says he terms a distinct recollection (xQ. 207–220). Asked if the connection between the piston-rod and pitman was made as in the drawing Exhibit 6; "I cannot say"; think there was a joint; could not say positively; according to the best of my recollection there was a joint; that Mr. Suggett made the drawing, and the drawing was made according to the description he gave him, as near as he could recollect at that time; that the joint does not agree with his present recollection in respect to the way it was put together, which is changed partially since he described it to Mr. Suggett (xQ. 220–226); the difference of his present recollection is that he should show an eye (xQ. 227);

he did not mean to be understood that the piston-rod lapped on the pitman without a joint, but admits if it lapped and bolted, as by his answer to D. Q. 111, it would preclude any joint (xQ. 232, 233). (These portions of the witness's answers are quoted, not because they have any direct relation to the matter in dispute, but to show the uncertainty of the witness's recollection, and that he changed his statements whenever he saw that the original statements he made were impossible.) His attention was more particularly called to the wind-mill ; he has no distinct recollection in regard to the pump (xQ. 234, 235, 236); could not say there was any means of starting or stopping the windmill except by the wind itself, or whether there was any means regulating it (xQ. 237, 238); Mr. Tallman was in the well, attaching the pump to the pipe from twenty minutes to half an hour; thinks he was in the well a part of the time with him; could not state everything he saw him do. Thinks from the top of the well he could see pretty much all he did unless it was something under the pump. Does not mean to say that during the twenty minutes or half an hour, he was in the well with him; does not know whether there was a second pipe of lead, or other material inside of the 1¼ inch iron pipe, which is described as standing on the ground (xQ. 246). Could not say how far it was from the bottom of the well to the water; could not swear that the depth of the well was not 18 feet; could not say who put the pipe in the ground ; was not there when it was put down ; does not remember that Mr. Tallman told him who helped him do it (xQ. 247, 250); asked how much fine sand and gravel he saw in the trough, said there might have been half a bushel or a peck, or perhaps less. Can't say how long it continued to come, and could not say whether or not the water was first pumped into a stone and cement tank, and from there led to the trough ; does not recollect of any tank. He means that to include all the time he was acquainted with the well; never knew any cement tank there (xQ.

251–256). There was an old wooden tank, or trough, a smallish one made of plank, placed against the south side, against the frame for the cattle to drink out of. Asked if there were troughs and not tanks, he said, they might call them tanks ; that they were used for cattle to drink out of ; that the water was delivered directly into these troughs (xQ. 257–260). When asked as to the discrepancy in his answer to (D. Q. 128 and xQ. 47), to one of which he said he could not tell the names of the parties on the farm, and to the other he said they were James Reddy, Jefferson Getman, Hoffman, J. A. Wickman and Geo. Trowbridge, said he was unable to tell the names of every one who was there to help raise the frame, but when he was asked about the help on the farm, he could tell. Then when asked : "Did you not say that it was help that worked on the farm that assisted at the raising?" he said : "I did." When asked of the answer to D. Q. 61, that Mr. Tallman fastened the pump to this pipe so it would be stationary and to suit himself, was the best description he could give of what Mr. Tallman did, says, as near as he can recollect now, it is (xQ. 269–271). Could not say which way the wheel of the windmill faced, North, South, East or West ; could not say positively which way. Could not swear that the crank of the windmill was over four feet long ; could not tell; did not know. Saw gravel, sand, round stone, and stones of different shapes in the bottom of the well; might have been three inches in diameter. Do not know that the dug well ever furnished water before the windmill was put there. He had no knowledge of it previous to working there (xQ. 275–279). Reminded that Mr. Tallman had testified that the discharge pipe of the pump was of lead, half an inch in diameter, and that he himself had testified that the stream coming from it was an inch or ¾ in diameter; and asked if he wished to modify that statement, said it was correct so far as he knew, according to his best judgment, but could not be positive (xQ. 281). Asked if he would swear that the pipe exhibited to him, and which he measured the diameter of on his direct examination, was the same pipe that was in the bottom of that well, he answered, "I will not" (xQ. 300). (The attention of the Court is called to the absurdity of the statement of this witness, that the well was covered by planking, spiked down, with the exception of one plank, and that there was a ladder in the well, the pump standing in the center, attached to a timber three by four, and that Mr. Tallman being below him, fastened the pump to the pipe, while he stood upon the ladder above him, a position which would either preclude Tallman from seeing what he was doing, otherwise it would have enabled Van Denburgh to know just what he was doing. The whole statement bears the impress of fabrication.

Dewitt C. Callan says the dug well was eight to twelve feet deep, made in the Spring of 1859. That in July or August it went dry; that he went up there and saw them drive an iron pipe, Tallman holding a scantling, and Gettman striking; saw six to a dozen blows struck, and the pipe was driven from four to eight inches; pipe near the middle of the well and well was dry; stayed but five to ten minutes. The next time he went they were pumping water. The pump was from two to two and a half feet from the ground, in the bottom of the well. Says that no secrecy was practiced, that there was a screw thread on the upper end of the pipe; first saw the well in May, 1859; Jefferson Getman and Perry were digging it; was an ordinary dug and stoned well; thinks the wings of the windmill were about 2 feet long, and the wheel 4 to 5 feet in diameter; never was down in the well; estimated the depth only by the looks; when he saw them driving, Tallman was in the well, holding the end of the pipe with one hand, and Gettman was driving on a scantling, on the end of the pipe; said he had just commenced; Mr. Tallman took the pipe, and worked it around with his hands, raised it up, and thrust it back like a man making a hole in the ground with a crowbar; the scantling that Getman was driving on was from 3 to 5 feet long; this was about 12th or 15th of September; the top of the pipe did not come even with the top of the well; does not remember whether he ever saw the well before the time he saw them putting the pipe in or not; in his "Direct," when he spoke of a block of wood being put on the top of the pipe, he meant a scantling, as they could not stand on the top of the ground, and reach a block of wood with a maul; thinks the pump from 7 to 9 feet below the platform; the pipe in the bottom of the well looked like a round iron gas pipe, and had a thread cut on the top end of it; since that time has not seen a pipe that was claimed to be that pipe. Does not know how long it was after Driven Wells were used in Preble. Knows of no other well being made by reason of seeing this one of Tallman's. Says the windmill was used in 1859 and part of '60. One wing blew off in Fall of '60, and does not remember whether well was used after that. Was at this well July 29th, 1880. The well was 12 feet 8 inches from the bottom of a stick in the bank. No water in the bottom to amount to anything. 27th of August, 1880, measured it again, found it 13 feet 6 inches, and 7 inches of water in the well. September 12th, found 8 inches, September 19th, 6 inches; October 4th again measured, 13 feet 6 inches to bottom of well, water 6 inches deep. Heard William E. Tallman say that he was going to put a pipe down in the well to water his stock.

Hiram Weeks says he cleared out this Preble well in July, 1880, so that it was 12 feet deep when he left it; he noticed particularly one large flat stone that projected over into the well a little. He cleaned out to the bottom; told them he had. Is satisfied he cleaned it out to the bottom. September 30th was at the well, and there was 5 inches of water in it. On cross-examination said Mr. Van

Housen told him the complainants wished him to testify in regard to the well. Mr. Banks advised him not to come and testify for complainants, so he sent word to Mr. Van Housen that he had corn to cut, and went to work; then he told Mr. Van Housen he would go down with him. Then told him the complainants would have to send an officer after him, and pay his fees. Came down to Cortland with Mr. Callan, who paid him $2. He drove him down with his horse and wagon. Mr. Crofoot and Mr. Tallman came to his house and talked with him about it; did not find the well a great deal deeper than he left it, when he cleaned it out; did not make any measurements when he cleaned the well; went down to Mr. Callan and stayed all night, October 4th, and examined the well in the morning; went up and dipped the water out; Mr. Callan and Mr. Crofoot measured the well; from the surface of the ground it was 14 feet 2 inches; from the stone he mentioned 14 feet 6 inches. The well was 26 inches in diameter at the top, 29 inches at the bottom, and 31 above the middle; the flat stone he referred to he found on examining this morning was at the bottom of the well; it was not 18 inches or 2 feet above the bottom.

George W. Way, being shown a section of iron pipe, identified by Moses Tallman as the one his brother said he was going to put in the well; he thought it was a part of the pipe he saw in the shop where he worked in Preble. It was then from 5 to 7 feet long. He wanted me to make some holes; started to drill them. Tallman said he could punch them easier; punched the largest holes that were in it; those that are nearest round; the long holes he did not punch; said the well was gone dry, and he was going to drive this pipe in the bottom; does not think he battered up the end; thinks it was done before he took the pipe; it was in the month of September, 1859; Mr. Tallman wanted me to bring a wrench and hammer up to the well; found Tallman there, and a man who worked for him; there was a little mite of water in the well; none that you could dip up; this was two to four weeks after he punched the pipe; at the time of the camp-meeting the pump was down in the well on top of an iron pipe sticking out of the ground; the pipe was punched in Tallman's blacksmith shop, what he punched of it; does not know that he ever saw the pipe afterward, until he saw it in Cortland a few weeks previous; thinks it is the same pipe he punched; there was a thread on the pipe, and Tallman said he was going to screw the pump on to the thread.

R. Holland Duell testified that he received a letter from Wm. E. Tallman, in which he stated that in 1859 he drove a piece of gas pipe into the bottom of his dug well, and pumped water up through the pipe; but he has made search for the letter and cannot find it. Has been counsel for defendants in Driven Well cases, for parties in Herkimer County, which cases were settled, and for Charles M. Titus, whose cases were settled, has other unsettled cases.

Edwin Wilbur saw the windmill going pumping water; looked down into the well, and saw a lead pipe, and thinks there was a pump in the well, half way to the bottom; had a piece of iron pipe with holes in the bottom of it; said he was going to drive that in the bottom, and try to suck water, through it; water was used from the well, for watering stock for two or three years; thinks the well, from eighteen to twenty feet deep; does not know of anyone else making a well like that from seeing it; has no knowledge of ever hearing this method of obtaining water by Wm. E. Tallman, discussed; Charles White worked for Tallman; the well went dry, and we drove a pipe in the bottom—an iron pipe four to six feet long; in the blacksmith shop the pipe was heated, and then pounded together, and holes punched, in the neighborhood of a foot, up the pipe; had it fixed in that way to drive in the bottom of the well; he said he was going to drive it, and make a well; *I did not see it driven;* should think this was a part of the same pipe he saw them fix to drive in the well; the day the work was done, a man came, and wanted a hard wood block, to drive the pipe on; he sawed off a piece of maple scantling to drive with; went over after that, and they had the pipe driven; no pump attached; after that a pump was attached, and he saw them pumping water; should think the pipe shown him was the same; could not be positive; saw the well before the pipe was driven; thinks it was eight to twelve feet deep; thinks there was a cast-iron pump used at the well before this pipe was driven, don't remember of seeing it afterwards; does not remember of hearing that well discussed in Preble at the time Mr. Tallman made the well; does not know of anyone making a well, from hearing of it, or seeing it made.

JEROME F. WHEELER says the last days of July, 1880, he was at the well; the water in it was 8 or 9 inches deep, and the well 13 feet and some inches from a certain stick above the stone work; went there again the 20th of September, went down the well and dipped water in pails. Callen drew the water up, took the water all out of the well, about 200 quarts in it; the diameter of the well was 27 in. at the top, 31 in. the middle, and 29 at the bottom. It took half an hour to clean the water out; water came in from the north side; the centre of the well was about 2 inches lower than the edge, 6 inches of water in the well, and 13 feet 6 inches deep and 14 feet 2 inches measuring from the surface of the ground, 12 feet 4 inches from the stick on the south side of the well, where it was measured before; would think the well was a foot lower than it was the first time he saw it; measured the water Oct. 4th, and it was 5½ inches deep.

ABRAHAM VAN DEN BURGH, re-called; never saw the elevator cup, iron curb, and copper strainer in the well, at the time he erected the windmill; does not remember who worked for Mr. E. Tallman in 1859; Ezekiah Kloch worked the farm after the windmill was put up; does not remember the well becoming dry, and being dug deeper; could not be positive that he went to the well after April 1st, 1880.

David O. Crofoot, was at the well 30th of July, 1880; measured it from a plank, at the southeast side of the well; from the plank it was 11 feet 10 inches to the bottom of the well. There was no water in the well. On 1st day of August was at the well again and found a little water. Measured 7 inches. Sept. 1st it was 12 feet 6 inches from the plank to the bottom, and 11 inches of water in the well, then measured, as Callan said Van Housen had measured by laying a board on the surface of the earth, and found it to be 14 feet 2 inches. The water was a foot deeper than it was July 30th. Can stick a pole down 2 inches in the mud if you desire; that makes that difference. July 30th he took a crowbar and punched around in the bottom of the well, but did not find anything; the bottom was not very soft; it required labor to force the bar down; has observed the water in the river at Preble, and in his own well, and it was lower that season than it had ever been since 1870.

Mrs. Elizabeth Short, in 1859, when 8 years old, saw some men at work driving an iron pipe in the bottom of the well. Her father, Thos. H. Perry, Jas. Wickham, Getman and Tallman. It was stoned up and no water in it. The pipe stood up in the well 5 feet high; heard them say they expected to get water by driving a pipe. There was a man standing at the bottom of the well, which enabled her to remember there was no water. Afterwards heard her father say the pipe had been driven, and water procured; it was in warm weather. She was in the orchard playing with the smaller children; her father called her and said, " Lib, bring us some water." She got it and carried it down there, and they drank out of the pail; it was a tin pail; told her sisters when she left the orchard that they could swing, that she was going to take some water; when she got there her father said, "Hand it here; I am as dry as a fish," etc., etc. (A remarkable exhibition of memory on trivial matters.) Don't know who the man in the well was; did not see them drive the pipe, but when she saw them going down, saw them pounding something; supposed they were driving it; could not swear it was the pipe.

JOHN D. F. WOOLSTEN said the pump was located in the well, near the bottom, and discharged water out of a ½-inch lead pipe. That there was a ladder consisting of a standard with cleats fastened on it. Thinks he examined the windmill and well in Spring of 1860. The well was about 12 feet deep; the pump was just above the surface of the water; did not notice any iron pipe below the cylinder, or any pipe except the lead pipe. All that he observed of the well was it was a dug and stoned-up well. The Fall before Wm. E. Tallman died he for the first time heard him say that he drove a pipe in the bottom of his well. The substance was that he told me his well became dry, and he drove a piece of gaspipe. Says that Getman told him he assisted to drive the pipe, but did not say how it was driven, nor how it was put in when the well was dug deeper, or how long after the well was dug, how far he drove it, or how long it was, or how it was attached.

CALVIN HAYNES says that he heard Getman say that the Tallman well was driven long before Green obtained his patent, and he helped drive it. He was at one time the owner of the Cardiff Giant. Getman never described the holes in the pipe, nor the manner in which it was driven. Getman told him that he had driven a well long before Green's patent, that would knock the props out of it, and send it to the devil; says Getman told him these things about three years before, and that he had never before heard that Tallman had a Driven Well. Said the well was dry; drove a pipe to get water; did not tell him how deep.

DIX HOBART saw Mr. Way fixing a pipe for Wm. E. Tallman, punching some holes; it was then 4 to 6 ft. long; said he was going to drive the pipe in a well he had in the pasture which was dry; went over it to the well, and the windmill was pumping water in a large tub or trough.

WM. E. HUNT says that Getman told him they drove the pipe; Hunt is a brother-in-law of Jed Lake; met Getman in the street; never saw him before Lake asked him if they drove the pipe 6 ft.; Getman said, "I should think not more than 4 ft.; Lake asked me to remember particularly what Getman said.

RICHARD EGBERTSON said Getman told him that he and his father dug a well on Tallman Farm; that it went dry; he and Tallman drove a pipe in the bottom; he says, in speaking about the pipe, "I am not positive whether he said he drove the pipe in, or put it in, and got water; afterwards I asked Getman about it; he said the pipe was driven some 5 in. or 6 in. to steady it."

THE TALLMAN WELL AT PREBLE.

It will be seen by the testimony of defendant's own witnesses that no clear statement of what was done by William E. Tallman has been furnished by any of them, or by all combined.

Several testify to having seen a piece of iron gaspipe, about 5 feet long, in Tallman's possession, with holes punched near one end up some 10 or 12 inches, and the end battered up, which several of them say Tallman told them he was going to drive into the ground in the bottom of a dug well, which had gone dry; Callan says that he was at the dry well and saw Tallman holding an iron pipe in the center of the well, with a scantling on the top, and Getman was driving it; that he struck five or six blows while he was there, and settled the pipes 4 to 8 inches; that the scantling was from 3 to 5 feet long. Other parties testify to seeing Tallman have a pipe and of hearing him say he was going to drive it, but no soul other than Callan testifies to having seen any driving, or to having known anything about the making of a Driven Well.

Basing our remarks entirely upon the testimony of defendant's witnesses, what did we find? Only that William E. Tallman had a pipe 5 feet long, with holes punched in it and the end battered up, which he said he was going to drive into the ground. Next, that Callan saw an iron pipe standing in the bottom of this well, near the centre, and Tallman and Getman together driving it into the ground; this well he says was 8 to 12 feet deep; Moses Tallman says it was 12 to 14; taking the mean to be 12 feet, the pipe 5 feet long, and the scantling 5 feet long (the extreme length he gives it) and a man standing on top of the well to drive, as he describes, in starting we find the end of the scantling 2 feet below the mouth of the well, for him to drive upon,

The mechanical absurdity involved in this statement is sufficient to show the entire unreliability of Callan, the only man who pretends to have seen it driven.

An examination of the piece of pipe, or photographs of it, offered as exhibits, will further convince the Court that it was never prepared for driving, never could have been driven to any extent, and if it had been, the opening in the lower end was such as to have admitted gravel of large size, to say nothing of the sand, a sample of which, from the bottom of the well, defendants produced as an exhibit.

It is in proof, by defendant's witnesses, that William E. Tallman was a mechanic; had a blacksmith shop of his own; and that he should have endeavored to make a Driven Well with such a mechanical abortion as this old pipe is, which with a flourish of trumpets the witness Tallman professes to produce as the actual pipe which his brother used in that well, is another absurdity, but he doesn't *know* whether it is the pipe or not, and his attempt to prove it only proves his willingness and desire to establish this as a Driven Well. With a hardihood born of this desire he proceeds to identify this pipe, which, as he says, had for many years been lying about among the old iron left by his brother on his place in 1864.

When it was taken out, or if it was *ever* taken out, he doesn't know. The pipe is 20 inches long; the difference in the length had to be accounted for, as for some reason or other it was deemed all important to prove the identity of this pipe. Nowhere in his testimony does he even pretend that he knows or has ever heard how, when or by whom this pipe was taken out of the well, or that it was *ever* taken out at all, and there is no proof that he ever *did* make a well with it.

Every one of defendant's witnesses who pretended to know anything about it testified that they never heard that well spoken of as resembling the Driven Wells until after 1876; no one ever heard it talked of as a Driven Well, not even Tallman himself, a mechanic, inventor and patentee, as shown by defendant's own witnesses, a man of property, standing and character in the community, one who was familiar with affairs, and who lived within eight miles of Cortland, Cortland being the county seat of his county and connected with the village of his residence by a railroad, over which passed several trains per day, where the Driven Well originated, and where Suggett, Mudge and Green all resided, where the testimony in the Interference case was taken in 1866; where from 1873 onward, but few months elapsed when witnesses were not being examined at Cortland in regard to the very patent here in suit, and yet until 1876 nobody, not even Tallman himself, ever lisps a word or hints at his ever having made a well having any of the characteristics of a Driven Well.

The entire absurdity of this claim should be sufficient, as we believe, to remove this well, upon defendant's own testimony alone, outside of the requirement of law which, in this case, requires a Driven Well to be proved to have been made beyond a reasonable doubt.

But not relying upon these circumstances complainants produced a large number of the most substantial and respectable neighbors of William E. Tallman, who, without exception, while having knowledge of the windmill erected by him, and showing that it was considered a novelty and much talked about, all say they never heard of there being any peculiarity about the well itself, or of it being anything but an ordinary dug and stoned up well.

Becoming satisfied that the claimed Driven Well was a myth, and that the reasons given for its existence, which was that the dug well had become dry, complainants had the well (which had become filled up level with the surrounding earth) found, dug and cleaned out, with the result that the well itself was found to be walled up to a depth of a little over 14 feet. (N. J. Parsons, page 799, D. Q. 9); and at the driest part of the driest season known for many years this 14 feet well was found to contain at the very lowest 7 inches of water, and up to within a few days of the most extreme drouth it contained 15, showing not only that there was no necessity of driving a pipe into the bottom, but that the statement of Callan, Van Denburgh and Moses Tallman, in regard to the well having been dry, had no foundation in fact.

Moses Tallman also describes the pump, which he says was made of copper and brass, six to eight inches long and three inches in diameter, and that this pump was attached directly to the top of the iron gas pipe, of more than half the pump's diameter, by screwing, the discharge pipe of the well, being only one-half inch in diameter.

Here is involved another mechanical absurdity, that a pump of that size should be, as he and Van Denburgh wish us to infer, screwed on to the top of this pipe, but which they do not, either of them, swear to having been done.

The Testimony of Complainants.

Ezekiah Klock moved on to and took possession of the Tallman farm on which this well was made in the Spring of 1860, within about 6 months after the windmill had been erected and the pretended Driven Well made, and resided there four years (D. Q. 4-8). He rented the farm as tenant; it consisted of 206 acres and extended from the mill pond on the east to the west road from Preble to Homer, a distance of about three-quarters of a mile; he used it as a dairy farm, making butter and cheese, keeping as high as 65 head of cattle (D. Q. 9-12). Procured the water for his stock at the creek; did in the season of 1860 for a short time use a well, situated about two hundred yards from the west road, midway between the north and south roads; discontinued its use because they had to pump it by hand; there was a windmill put in there but it would not supply the stock, and they could not depend upon it. (D. Q. 14-16). The windmill was there in 1859, was on the place when he went there describes the well as in a little valley or ravine (as to the location there is no dispute). Says it was a dug well stoned up; thinks it was 12 or 14 feet, and about 3 feet across; never measured it; water was obtained from the well during his occupancy of the farm by hand pump (D. Q. 19-21). He never saw the well dry to his recollection (D. Q. 22). Mr. Tallman tried to make the windmill supply him with water, he was trying to fix the pump for the benefit of his stock; there was nothing peculiar about the well, that he knows of; does not recollect of ever conversing with Wm. E. Tallman about how the well was made; never heard him claim that the water was drawn by the windmill pump from an iron tube driven in the bottom of the well (D. Q. 23-28). During his four years' occupancy of the farm he never used the well after the first season except for drinking purposes, during the farming season; when they worked on that part of the farm (D. Q. 29). Does not recollect of ever being down in the well; knew a man by the name of Jeff. Getman; he worked for him; Getman never procured water from the well, except for drinking purposes; Wm. E. Tallman, during the years Klock occupied the farm, lived in the same house with him (D. Q. 31-34). The house being about forty rods north of Moses T. Tallman's, with a public road passing between the houses and their farms; he was on friendly and intimate terms with Wm. E. and Moses T. Tallman and their families from the Spring of 1860-'64 (D. Q. 38). Conversed with them about daily, except for six months at a time, when William was in Indiana, and was in the habit of discussing with both the Tallmans neighborhood and general news freely and unrestrictedly (D. Q. 40-41). He would think, if there was anything peculiar about the windmill well Mr. Tallman would have spoken in regard to it. The first Driven Well in Preble of which he had any knowledge was put down by Mr. Dunham, of Homer (the same man that Moses T. Tallman says put down two Driven Wells for him). While he was on the Tallman place there was a dug well put down in the farmyard. Jeff. Getman, and a man by the name of Tom Perry, put it down; water was procured by means of a hand pump, did not remember distinctly, but thinks it was a wooden pump; the well was dug by direction of Wm. E. Tallman, and no iron tube was driven into it that he recollects; he was there frequently during the digging and stoning it up, as was Mr. Tallman; he heard no suggestion at the time of driving a pipe in its bottom, or anything suggesting that—such a thing was feasible, or ever had been done (D. Q. 51-57). This well, to the best of his recollection, was dug in the year of 1862 or 1863 ; there was a well at the house when he went there, and he is under the impression there was a Driven Well put there by this man Dunham, for the use of the cheese house ; Dunham was making a business of putting down Driven Wells, and was the first person he ever knew engaged in the business; these Driven Wells were considered a new method of procuring water from the earth (D. Q. 58-62). This dug well was twelve to fourteen feet deep, two and a half to three feet across, forty or fifty yards from the pond, and about seventy-five yards from the creek ; it was about in the center of the pond. The reason of putting down this well so near the pond and creek was to prevent the cattle from getting on the ice and drowning in time of a thaw (D. Q. 63-65). He means to say that it was for watering the stock during the season of the year when there was danger of injury from watering the stock as they were in the habit of doing at all other seasons (D. Q. 66). The windmill which stood over the well in the lot on west end of the farm, had arms and wings of iron, and stood twenty or twenty-five feet, perhaps not as high, above the well (D. Q. 71-72). Direct question 73 was: "You have spoken of Mr. Tallman trying to make a windmill supply you with water, please state what he did in that endeavor to supply you ?" Answer: He took up the pump and brought a piece of gas pipe to the shop and had it punched full of holes and battered up one end of this pipe, and said he was going to attach that to the lower end of the tube of the pump—to prevent its drawing in any dirt or sediment of any kind." He did not see him attach this to the pump; was not present when the pump was replaced. It was in the Summer of 1860, he thinks, this was done (D. Q. 74). His first acquaintance with Getman was in the Spring of 1860 ; he pretended to be a professional well digger. He never saw him dig but that one (D. Q. 80–81). The shop where Mr. Tallman took the gas pipe was a blacksmith's shop on his own place. He did not see the holes punched; saw the pipe after it came out of the shop; thinks it must have been about ten inches long; never saw it afterwards; does not recollect whether Mr. Tallman ever told him he attached this pipe to the well tube; does not recollect of any repairs being made to the windmill during the time of his occupancy; does not know of any wooden wings being put on and don't think they could have been without his knowledge (D. Q. 90, 92); the well at the barn had about four or five feet of water; Tallman built a reservoir to receive the water from this windmill pump, which was led from the reservoir into a trough; this was in the year 1860; the year he went upon the place, and while he occupied it (D. Q. 94, 96). On cross-examination he was asked how he got water from the well where the windmill was for his cattle, and he said, by a hand pump (xQ. 112); there was a windmill pump; it was so constructed it could not be pumped by hand; Wm. E. Tallman owned about ten lots, and he occupied all of them (xQ. 118); he worked the farm on shares, the first year he was there, afterward paid rent, $1,600 and $1,650 per year; the windmill was so constructed that it could turn with the wind (xQ. 128). (A more reasonable statement than the mechanic, Van DenBurgh, makes in regard to the mill which, according to his statement, had its boxes fast upon the girts at the top of the frame.) Wm. E. Tallman was always improving or suggesting improvements more or less all the time he lived there; his head ran to making changes and improvements (xQ. 151, 152); Dunham made a Driven Well on the farm by driving an iron bar into the ground, and after driving a certain distance withdrawing it, and then driving down a pipe with a point to it, to the depth required to get water; the bottom of the pipe was perforated (xQ. 159); went himself to the windmill well for water in 1860 and '61 as did others (xQ. 158); the piece of pipe that Tallman took to the shop and had punched with holes, to the best of his recollection was flattened at the end, it could have been driven in soft ground; was not present when the tubing was attached to the windmill pump, and does not know whether the tubing was driven into the bottom of the well or not (xQ. 181–183); has looked down in the well, and should think the lowest he ever saw the water, it was 12 feet to the water, to the best of his recollection; the windmill pump was above the covering of the well, and the hand pump on the same level; what he meant by speaking of the pump of the well was, the pipes of the pump running into the well (R. D. Q. 184–168); he used the well during such portions of the year as the water in the earth was usually at its lowest depth, during the Spring and Summer and September; the Tallmans did not talk freely concerning general business matters, but concerning home matters they did; thinks that they talked more with me than with others (R. D. Q. 191); thinks the larger proportions of Tallman's changes and improvements were failures (R. D. Q 194); THOMAS J. GETMAN, page 1023, dug the Tallman well on his farm at Preble, over which the windmill was afterwards erected in May, '59, for William E. Tallman (D. Q. 7–10); it was an ordinary dug and stoned well; it was somewhere from 10 to 11 feet deep when first put down; he stoned it up. It became dry in July or August; Mr. Tallman had a short iron tube or cylinder, and he wanted to know if I would sink that in the well, inside of the wall, and get water; I told him I could, and I did do it; had had previous experience in making wells (D. Q. 11–13); water was raised from the well by a cast iron pitcher pump for watering stock and drinking purposes for the laboring men who were there (D. Q. 15–16); the sheet iron tube or cylinder, he thinks, was 12 to 15 inches in diameter and about a foot long; saw a piece of tubing in the office of

Mr. Messenger, the notary, which was very similar to the one he sunk in the bottom of the well (D. Q. 18-19); the well got dry again about the 1st September; they took the stone all out and dug the well in the neighborhood of 3 feet deeper or little over; her did the work himself at Mr. Tallman's request, assisted by Mr. Tallman, Jothan Williamson, Herman Smith and James Reddy; the walls of the well were entirely taken out; he did the digging himself (D. Q. 21-26); it was on the 12th of September, 1879, he was unable to remember because the camp meeting commenced on the 14th (the date is undisputed); witness was intending to keep a stand at the camp meeting, wanted leave of absence for two weeks, and Tallman insisted on having the well deepened before he went, saying he could have all the help he wanted; they had the stone thrown out and dug it as deep as they wanted it, stoned it up in the afternoon, and at night called it a complete well (D. Q. 32); they sunk the well 3 feet or little better; perhaps 3½ feet; but into 2 feet of water (D. Q. 34); commenced restoning the well from the bottom; flat field stone was used; the same stone that was taken out was used as far as it went; the water at that time on Preble flats was at low tide (D. Q. 34, 37); the windmill had not then been erected; was in the employment of Tallman and assisted Abram Vandenbergh in erecting it (D. Q. 40); his impression is that there was a lead pipe attached to the pump leading to an iron pipe in the water; to the best of his recollection the iron pipe was originally 2½ feet to 3 feet long, and an inch to inch and a half in diameter; holes punched in the iron pipe at one end; cannot say whether the lead pipe went into the iron pipe or not, but his best recollection was that it did, and was wrapped around with rags and coal tar at the joint (D. Q. 22); he has said he thought the pipe was driven in the ground slightly but wants to take it back, as he never said it under oath; thinks it was not driven into the earth at all; said it was his impression once that it might have been put into the ground first to steady it, and has said so to different parties, but said he would not say it was put in the ground six inches or four feet; these were the words he had used (D. Q. 43, 44). Mr. Moses Tallman told him that he had seen Mr. Keach, and Mr. Keach said that he would give him $25 if he would swear that the iron pipe was driven into the ground at the bottom of the well *below the perforated holes*, but said he would not agree to pay it till after the decision of this suit. Getman said, "I will not swear it for $25 nor $2,500, nor any other sum; there has been too much manufacturing evidence in this town already over this thing." Then he said to Tallman, "Mr. Keach rode with me and Mr. Crofoot down from the village last evening; why did he not talk to me as well as to have to talk to you." That ended the conversation; the conversation was about four weeks ago; Keach came to Preble, representing himself as a lawyer; he came to Preble to examine witnesses on this Driven Well business; I did not speak to him until he sent for me to come to Mr. Tallman (D. Q. 45, 46, 47, 48); went and learned he was examining witnesses against the patent by a receipt he read that he got off east somewhere, near Troy; had no conversation with Keach, but once said before he got away he would call on him to testify. This is all pertaining to it, except when they got together, and had some fun, one thing and another in the hotel, where the examination was held at Preble Village; when the windmill was put up, and this iron pipe inserted there was about two feet of water in the well and do not know that there was any fall off from the time it was deepened until the windmill was put up (D. Q. 51); nothing to his knowledge was said about driving the pipe down into the bottom, so as to get water below the bottom of the well; first heard of a Driven Well, he thinks, in the Fall of 1861, on the Cortland Fair ground (D. Q. 52-54); shown the piece of pipe claimed to have been in the well, says it *looks* like the piece, and bears the description he gave to Mr. Suggett the counsel appearing for defendant; has talked freely with both sides in this case, as freely with the one as with the other, and stated to each side what he recollected (D. Q. 54–55); thinks his memory has been refreshed on some points, on both sides, by the frequent conversations (D. Q. 56); *his recollection was that the perforations in the pipe were above the earth in the water;* has no recollection of a strainer being attached to the iron pipe, or sheet iron tubing being placed in the well (D. Q. 59); the iron pipe shown they placed in the bottom of the well, to have a tendency to prevent drawing up of gravel and sediment (D. Q. 60).

On Cross-Examination,

Defendant's Counsel endeavored to intimidate and confuse the witness, and not until the 248th cross-question do we find anything worth noting.

He was asked if he had not previously stated that he could swear to enough in this case if he had a mind to to send the "Green Patent" to hell, or words to that effect; he answered, "No, sir; never to my knowledge." The next question of any importance is 286. He was asked if he did not say in the presence of counsel for the defendants that the well was only sunk deeper once, and that was when the sheet-iron cylinder was put in; he answered, "No, sir; not that nor any other time, nor any other persons." Asked if he swore to that positively without any hesitation or secret evasion, he answered, "*I do before my God and Maker*" (xQ. 287). Asked if he did not tell the counsel and Mr. Palmer that Tallman got the pipe at Syracuse, and they would find it charged in the freight books; he answered, "No, sir; I said they would find a box of hardware charged on the books at the Preble depot; I think it was in the month of August; it might have been June; am not positive either way; think he has received

$28 from complainants and $1.50, or such a matter, from John Suggett, the defendant's counsel. Received no presents or gifts. No promise has been made to him directly or indirectly by any person whatever, or to his friends or relatives, to his knowledge, he answered, "*No, sir; before my God and maker*," again, continuing, counsel asked him, "Will you swear positively, and do you swear that some inducement was not held out to you for swearing in this case differently than what you had said to various parties, and did it not take a great deal of work and coaxing to get you up to the point of swearing as you have in this case, and get you to go back upon statements that you had made on the flimsy ground that they were not under oath; please answer yes or no." His answer was, "No, sir; if a man should come to me, and try to influence me, I would denounce him as I have Mr. Keech" (xQ. 292-294). At a Sunday conversation referred to, he was asked if he did not state this: "The pipe was driven in the bottom of the well; whether driven one foot or four he could not say;" he answered, "I have stated that I could not say whether it was driven six inches or four feet;" asked if he did not say in the conversation that the pipe was driven; he says, no, sir; swears positively that he did not; asked if he had not said in word and substance, at various places, in the presence of Edwin Wilbur, George Way, Dewitt Callan, Abram Van DenBurgh, Moses T. Tallman, Calvin Harris, Calvin Shepherd, David Crofoot, or either of them, that he could tell enough to send the "Green patent to hell in an hour," and also described how the pipe was driven, who drove it, and various other things; he answered, "No, sir;" if the pipe was driven at all, I could not tell who drove it (xQ. 315). In answer to question 317 he says he never used those words to send the "Green patent to hell," and *no such thought ever entered his head* of sending it or any one, or anything else to hell. Had no remembrance of saying a word to C. F. White or

Richard Egbertson, or either of them, about it. He did not say to William E. Hunt, Irving Palmer, Jed. Lake and the examining counsel that the pipe was driven into the ground at the bottom of that well; he did say it was his *impression* it was put into the ground enough to steady the pipe at the bottom. Asked how far the pipe was driven in the ground he answered "not to *exceed* six inches," that is my impression; and asked how it was put six inches in the ground, he answered, "*it would have to be driven*, I think"; and as to what *his impression was* as to how it was put in he answered, "my *impression* is that *if it* was put in it was driven" (xQ. 320, 329); cross-question 325 was, you have sworn here, have you not, that it was your impression, and is your impression, that the pipe was driven six inches to steady it; he answered "No, sir, I have not sworn to that"; did you not swear that it was your impression that the pipe was driven? answer, "I did *a little*;" *has not stated* that it was his impression that *it was driven six inches* (xQ. 336, 337); counsel still insisted upon trying to compel him to answer that the pipe was driven six inches; failing in that, he endeavored to get him to give the best idea as to how far, and was answered, that he could not say whether it was 1, 2, 3, 4, 5 or 6 inches; still insisting upon an answer, he said, "Well I should think (it is all guess work) *not over* 3, 4, or 5 inches;" the next question was, You have stated as you swear that *it was your impression that it was driven six inches*; will you swear now that it was not driven six inches? please answer directly; he says, "No, sir; I would not" (xQ. 340-342); then follows, "How was it driven; do you remember; give your best recollection," again he answers, "*I do not know*"; *and this is the style of the cross-examination from first to last—a futile endeavor to make a* good-natured, unlearned, honest man cross himself. Then followed a string of hypothetical questions as to statements he had made, to all of which he answered that he did not make them, which he will swear positively. Cross-question 349 was: "Did you not state, and have you not stated, that there was a thread or screw on the iron pipe by which the pump was attached?" His answer was: "I have stated that it was *my impression*, then, upon reflection, and looking over the matter, *I see I was mistaken*." Asked what made him change on the subject, he said he made up his mind he was mistaken, because he fixed it himself, once or twice, and may be more; he says he did not help to screw on the pump, and did not *know* there was a thread or screw on the pipe, and has not said so, in substance. The witness having fixed the date by Mr. Woolston's diary, who had turned down the wrong leaf for him, finds he had made a mistake of some days as to the date of the Camp Meeting, in September, 1859. He acknowledges his error, and the counsel asks him if he has not sworn falsely; he answers that *he did not intentionally*, but was mistaken in the dates. (The Court's attention is called to the style of cross-examination extending over several days, and having now reached 374xQ.) Asked how the gas pipe was supported, he said it was cross-braced with sticks, he thinks, in the wall, three or four or half a dozen, situated near the bottom near the water; that is his impression it was fixed so at first, there might have afterward been a stick fixed up and down (xQ. 376, 377). Thinks that the sticks were a little above the surface of the water; the four sticks touched each other or two sticks touched two (xQ.380). Thinks the pipe extended a foot above the sticks and from the sticks down to the water not over six inches; Mr. Wm. E. Tallman passed the sticks down to him and he fixed them in; thinks that was about the last work in the well (xQ.382–386). Asked how the lead pipe was attached to the iron pipe after the iron pipe had been secured by the sticks, he answers that he will not be positive now; *thinks* it was with a spongy piece of leather, a cloth and string, and he *thinks* coal-tar, but would not swear positively as to that (xQ. 398). Asked to describe the joint, says he could not, unless one pipe slipped inside the other; his *impression* is that the lead pipe just entered the iron pipe, did not go to the bottom; thinks the end of the lead pipe was a foot or a foot and a half above the water; says he has no distinct recollection of it, but if his recollection serves him right that was the way it was done (xQ. 406–410). Badgered again by question 412, which was: "Then I understand from your last answer that *now you have a distinct recollection* that this joint was made in the way you describe, am I correct in my understanding?" He answers: "*No, sir, I have not a distinct recollection.*" Says to the best of his recollection the pump that was soldered to the lead pipe stood in the neighborhood ef one and one-half feet above the surface of the earth at the mouth of the well (xQ. 418). Counsel makes an elaborate verbal description of the pump and asks if that was not correct? The witness says, he never saw the inside of it and cannot say. Counsel still further describes it hypothetically and asks if that is as he remembers it worked; he answered, "*Not as I remember, but as I think it worked*" (xQ. 425-427). He swears positively that the pump which was operated by the windmill was not within the dug well, but was over, and above it, a foot and a half or so (xQ. 434); the windmill and building of the reservoir attracted considerable attention, and Mr. Tallman made no secret of it, that he knew of (xQ. 438–440). Being told that Moses T. Tallman, Abram Van DenBurgh, George Way, DeWitt Callan, Chas. F. White and John F. Cornue have all sworn that the pump operated by the windmill was within the dug portion of the well, when asked if they were all mistaken, he says, "I think they are." "Is that as strong as you will put it?" "Yes, sir" (xQ. 442, 443); thinks the windmill was not in use until the 17th of Aug., 1862; describes the box on which the pump stood; thinks the pump had a flange, or ears, with holes, to fasten it with screws; when the pipe was put into the well there was two feet of water or nearly that, not much odds either way, more or less (xQ. 539); after the last deepening it was between two and three feet, before the windmill was put up (xQ. 540); before the well was opened, thinks he stated to different parties the well was from 16 to 18 feet deep (xQ. 550); he did not state to Mr. Palmer and Mr. Suggett that the well was not re-dug (xQ. 560, 561); he did not state that the statement was an affidavit that he gave to Parsons. Counsel insisting upon his giving the reasons as to *why* the gas-pipe was there, he answered repeatedly that *he did not know*, and again, to xQ. 575, says, "I do not know his object in putting it there." Is confident the pump was on top of the well, on top of the box. Asked "if John D. Woolston did swear that the pump was down in the well it would not make him doubt his own memory," he answered "No, sir, it would not." "Then you would not believe him, would you ; please answer yes or no;" his answer was, "Yes, sir, I would. I should think *he would be mistaken*, in regard to that pump being in the well" (xQ. 583). On redirect he is asked how many times he had been approached by defendants' counsel and interviewed in relation to the well; he says he thinks three times in Preble and a few times here in Cortland Village; he has been interviewed once by Jed Lake, defendants' solicitor; no one on the part of complainants has promised to pay him anything, except the regular fees for attendance and traveling expenses (R. D. Q. 2–6); has received no money from defendants, except a subpœna fee once; was subpœnaed by them as a witness; came in and was not sworn. Being asked whether having testified that people were attracted to the well by reason of the novelty of its construction, there was anything new or novel to his knowledge except the windmill and its attachments, he answered "*No, sir*," and that there was no other windmill in that vicinity at that time; almost every one calls him Jeff. Getman (R. D. Q. 11); he dug a well for Wm.

E. Tallman subsequent to the one of which he has been testifying; it was in the last of November, or 1st of December, 1860; it was cold weather and quite considerable snow on the ground before he got it complete; it was in the barnyard on Wm. E. Tallman's farm at Preble, about half a mile or little more east of the other well on the same farm, where the windmill well was; Wm. E. Tallman employed him to do it; an ordinary dug and stoned well for watering stock in the Winter season; there was a creek near; the well was built to keep the stock from getting on the ice, slipping and hurting them and breaking through into the mill pond and drowning; the water was drawn from it by means of the box pipe pump; Wm. E. Tallman said nothing about making a well by driving a tube into the ground (R.D.Q.13-23); Wm. E. Tallman never made to his knowledge any claim to have made a well by driving a tube into the earth; at the time he dug the barnyard well the farm was occupied by Ezekiah Klock (R. D. Q. 24, 25); explains how he made a mistake in the page in Woolston's diary; Woolston turned down a leaf for him, and he being a poor scholar did not notice it; it was turned to the 14th instead of the 7th. Did not intend when he stated that the camp-meeting commenced Sept. 14th to make a false statement (R. D. Q. 30-31); when the windmill was erected *there was about 2 feet of water in the well, and he never afterward knew the well to be dry.* There was a cast-iron pitcher pump there worked by hand, *after* the windmill pump was put there; it was there *when* the windmill pump was put there, and up to Aug 17th, 1862 (D. R. Q. 32-37). This pump was used in 1859 for pumping water for stock, and up to Aug., 1862, for pumping water for laboring men, and for drinking purposes (R. D. Q. 38-39). Asked how much money he had received from complainants; he said $2 per day and no traveling expenses (R. xQ., 29). Asked if he did not say in a store in Cortland, that he was going to make $2 out of complainants, and be able to pay back $2 he had borrowed, answered that he did not, that he did borrow $2 and told him when he came to Cortland he would pay him back.

The pump that was there, beside the windmill pump was the same that was there in May, 1859; being then told that several of the witnesses had sworn to *different* statements, he was asked if that might not be so, and thus reconcile the apparent direct conflict between his testimony and theirs, he answered, "I am positive I am not mistaken; I think they are mistaken about the whole matter, in regard to the well being dry, and any pump being down in the well from Sept., 1859, until the 17th of Aug., 1862." After that he knew nothing of it. In answer to R.D.Q. 2, he says, "I am Poor Master of the town of Preble, or one of them. This is my third year; I have been re-elected each year for three years. Was Town Collector one year, about six years ago, and have been Constable for three years within the past six years; I am not Constable now."

Thomas Ballard now occupies the place formerly owned by Wm. E. Tallman, on which the well is located; knows the Tallmans and Klock, who lived on the Tallman farm; he lived in a house he rented from Klock, in 1863; there was a windmill standing over the well at that time, about 60 rods from the house he lived in (D. Q. 6-15).

The windmill was not in operation in 1863; it blew or fell down.

The frame fell about eight years ago; some of the wings and ironwork before (D. Q. 18-20); the wings of the windmill were of sheet iron; there has been no pump in the well for eight or ten years past; there was always plenty of water in the well until it finally got filled up by a freshet, the heaviest and longest he ever saw; it washed the land very much, even the cobble stones into heaps; has mowed, pastured and plowed over it for six years; the well was thirteen or fourteen feet deep, stoned up from the bottom; he obtained water from it before the freshet (D. Q. 35-37); has been recently reopened; saw a board ladder which had been apparently taken out of the well, twelve feet four inches long, fifteen inches at the bottom; board sound, and about five feet appeared as if the water had been on it a part of the time (D. Q. 44-48); the well at the house where he now lives, sixty rods from this well the water varies from two to ten feet different seasons of the same year; it is most dry now (D. Q. 48); Mr. Parsons told him he hired a man to clear out the well, but he had not done it, and he employed himself and his hired man, James B. Share, to clean it out (D. Q., 50); we worked by spells three different days; got down to the gravel, which the walls went fully down to; the diameter of the well at the bottom was most two feet; along up it was larger; a few inches at the top it was about two feet.

They removed about three feet depth of dirt, stones, etc. (D. Q. 56); when he went down in the well found the earth compact, as if it had lain there a number of years; no water of any consequence, but it was wet (D. Q. 59, 60); went down eighteen or twenty inches before water appeared above the dirt (D. Q. 62); toward the bottom of the well he found a copper strainer like one going on a sprinkling pot, then a sheet iron tube about a foot high, 15 or 16 inches across, a leather string tied about the neck of the strainer; string and strainer had an old appearance; strainer was corroded, iron tubes rusty and places eaten through; found the tube or cylinder standing on the bottom of the well, about in the center, and the strainer just above the sheet iron tube on the south side, about two feet below the surface of the earth he first took up. (Shown the tube and strainer.) Says they are about in the same condition as when he found them (D. Q. 63-69); he first loosened the earth and then stooped down and pulled it up; this ground came up quite hard.

The copper strainer was found just above the cylinder embedded in the dirt and full of dirt; beside himself and the hired man Mrs. Share was present. (Shown photographs and identified them as being correct representations of the strainer and cylinder) (D. Q. 71-77); (photographs of the pipe and strainer annexed conceded to be correct representations, and were marked by the notary "Complainant's Exhibit No. 2, H. J. M.," it being conceded that the perforated pipe is the same testified of by Moses Tallman) (D. Q. 78).

The strainer fits on the perforated end of the iron pipe a good snug fit, would not readily drop off; it was the one particular way it fits best; the strainer will not go on the other end of the pipe; goes on to the smaller end about an inch and a half; the orifice in the end of the pipe is about one-third open (D. Q. 79-84).

In cleaning out the well he measured the well and found the depth 15 inches (D. Q. 88); two ordinary persons could stand upright in the well, but not to do any work (D. Q. 90); never has known the water in the well at his house to be as low as it is now; the irons of the windmill have been lying on the ground some eight or ten years; he first saw the well in 1863; has a slight recollection of seeing a hand pump at that time; thinks there was a rod or pipe coming out of the well, but could not describe any pump (xQ. 31); he looked into the well and saw water (xQ. 40); he looked into the well two, three or half a dozen times before it was filled up (xQ. 53); has a slight recollection of seeing a pipe or rod beside the water (xQ. 54); the appearance of the ladder indicates it had been used in the well; does not know, but it might have been there each time he looked in the well; never used it or went down in it himself (xQ. 85-87); the windmill was not in operation for pumping water after 1863 (xQ. 89); never knew the well to be dry or nearly so (xQ. 112); found an elevator cup besides the copper strainer and sheet iron tube in the well when he cleaned it out (xQ. 137); measured the well in September, 1880, and its depth was nearly 14 feet from a little below the surface of the ground; averaged it with the surface; ascertained the depth of the material he removed from the well by actual measurement of the wall, cobble stone being one foot, and after he got it all cleaned out found two feet of flat stone, there being in all three feet down to the bottom of the well; where he commenced to clean it out, measured it the same day and there was 16 inches of water in the well at that time (xQ. 198, 200, 201); it was about 11 feet from the surface of the ground to where he commenced cleaning it out, doesn't know where the articles he found in the well came from; never saw them before (xQ. 216, 217).

The first time he measured it there was 16 inches of water, the next time 15 inches, afterwards about 8, about a week ago; will swear positively that the bottom is not 2 to 4 inches lower than the base of the wall (xQ. 238, 252); the center of the well and the base of the wall are nearly level, there may be some stone a little lower than the surface of the center of the bottom of the well (xQ. 253, 256); complainants have paid him seven dollars, including pay for going to Preble, and grain for horse, etc.; they have made him no promises of any presents, to his family or promises of any kind (xQ. 290); the well at the house was then so dry that he could see half the gravel at the bottom (xQ. 298); had never heard from anybody that the well was in any sense a Driven Well (R. D. Q. 3).

Spent with his hired man from 4 to 5 hours the first day, from 3 to 4 the second and about 3 hours the third day; it took them so long to clean it out on account of the water (R. D. Q. 23); the last day they had a pump (R. D. Q. 24); flat stone at the bottom of the well appeared to have been in it ever since it was dug or stoned, the cobbles appear to be the same (R. D. Q. 26); there was no appearance of the flat stone near the bottom having been recently put in (R. D. Q. 27); thinks it would be almost impossible to have put the stone under; it is much easier to lay flat stone in the water than cobble stone

(R. D. Q. 28, 29); since the well has been cleaned out it has been open and accessible to everybody that desired to visit it, and for the most of the time a ladder in it (R. D. Q. 33); thinks he would have heard through Mr. Tallman or his hired man if there had been a pipe driven in that well; thinks Mr. Tallman would have told of it (RxQ. 29, 30); Mr. Parsons did not intimate to him that any articles might be found in the well; he preserved them because the copper strainer was of some value, and thought he would show them to Mr. Parsons (RxQ. 33); he first took them up near the barn and left them till Mr. Parsons came, then put them in the granery, but did not lock them up there only as he locked the barn at night (RxQ. 35).

The dissatisfaction of defendant's counsel at the testimony of this witness is shown by the last cross-question put to him, which was: "Were you detected in stealing pork from the cellar of Mr. Thomas while he lived in Preble, and did you settle and compromise that affair?" The witness answered: "No, sir."

The Court's attention is called not only to this question but to the general style of cross-examination of this witness in the endeavor of defendant's counsel to browbeat and insult him.

THOMAS BALLARD, on his redirect examination, stated that he never knew or heard from anybody that the Mr. Thomas referred to, or any other human being ever suggested or in any way imputed to him the charge of having been in Mr. Thomas' cellar without his permission, either in the daytime or in the night-time, or having stolen pork from him or anybody else, until these questions were put to him by defendant's counsel (R. D. Q. 1).

As to the diameter and depth of this well and amount of water in it, Ballard's statements will be seen to be fully corroborated by N. J. Parsons, J. M. Blanchard, Matthias Van Hoesen, Seth Aldrich, Gilbert Van Hoesen, John Vandenburg, Amasa G. Aldrich, John L. Haviland, John S. Cornue, Orrin Pratt, and Eben Daly, and it is unnecessary to make such reference to their testimony; Ballard's statement of what took place in cleaning out the well is corroborated by his hired man, James B. Share, and by Mrs. Share, as a reference to their testimony will fully show.

MATTHIAS VAN HOESEN, supervisor, justice of the peace and postmaster of the town of Preble, went to see the windmill well about 1861, at the suggestion of Mr. Tallman; the point of curiosity was the windmill; didn't know but that it was an ordinary dug well; nothing else was claimed for it (D. Q. 31–32); thinks the first Driven Wells he ever heard of in Preble were in 1866, made by a man named Dunham in Homer.

SETH ALDRICH has been supervisor of Preble; has lived there for 60 years; knew William E. Tallman for the last 45 or 50 years of his life; used to meet him on business matters, and knew him as a man in town; knows his brother Moses, and has for the last 36 years; remembers William E. Tallman putting in a windmill for pumping water; describes the location of the well; the windmill was erected a little before the war (D. Q. 1–3, 5–8, 11, 12); knows the process of making Driven Wells, they were first put down in Preble about 15 or 16 years ago, as near as he can remember, by Mr. Dunham (D. Q. 16–18); when Mr. Dunham commenced it it caused considerable excitement; it was then considered a new discovery and method of well-making, he had been to the Tallman well; never discovered it was anything but an ordinary dug and stoned well (D. Q. 19, 21, 22); when he visited it at different times, it had from 10 to 12 inches of water in it (D. Q. 27).

GARRET VANHOESEN, Sheriff of Cortland County, and formerly Justice of the Peace, lived in Preble forty years; knew of Tallman's windmill and well; always understood it was an ordinary dug well (D. Q. 1, 2, 4, 14, 15). First heard of the process of procuring water by a Driven Well in 1861, on the Cortland County Fair Grounds.

JOHN VANDENBURGH, a brother of the carpenter, Abram Vandenburgh, one of defendant's two principal witnesses, has lived in Preble all his lifetime, never over three miles from the Tallman's; he was acquainted with both of them; the first Driven Well he ever saw was in 1865 or '66, put down by Mr. Dunham; it was then regarded by himself and townsmen as a new process; was at Tallman's well when the windmill was there; think it was a dug well, stoned up, never heard at the time that they claimed it to be anything else; the first claim he ever heard of was since this litigation commenced (D. Q. 2, 4, 5, 7, 9, 10, 13, 15, 16).

ALBERT H. VANHOESEN, born and always lived in Preble; lives on a farm adjoining William F. Tallman's farm; used to see the Tallmans every day or two; the first Driven Wells he heard of was 14 or 15 years ago; the one at the depot was the first he ever saw; they were regarded as a new thing and were put down by Mr. Dunham, of Homer (D. Q. 3, 5, 7-10); saw the windmill soon after it was erected by Wm. E. Tallman; says he pumped water from a dug and stoned well; saw water in the well, couldn't tell how deep it was (D. Q. 14, 15, 16); the windmill was regarded as a curiosity (D. Q. 17).

AMASA G. ALDRICH, 70 years of age; has resided 30 years in Preble; knew William and Moses Tallman; well acquainted with them; the first Driven Well he ever saw was at the depot in Preble, put down by Mr. Dunham; helped him put down one or two; the process, he thinks, was considered new and there was a great deal of talk about it (D. Q. 3, 5, 7, 8, 10, 12); thinks he first heard of a Driven Well on the Fair Grounds, when the soldiers were there

(D. Q. 16); heard that Col. Green was the inventor (D. Q. 17); knew of Tallman's windmill; was not to it, but understood he pumped water from a dug and stoned well (D. Q. 21).

John L. Haviland, 63 years old; lived in Preble 24 years; knew William E. Tallman, also Moses Tallman, ever since they lived in Preble (D. Q. 2, 4); thinks the first Driven Wells made in Preble were by Mr. Dunham (D. Q. 9).

John S. Cornue has resided at Preble 40 years; knew Wm. E. Tallman in his lifetime, and knows Moses T. Tallman. The first Driven Well he recollects in Preble was one at the depot, put down by Mr. Dunham of Homer, put down sometime from 1864 to 1866; they were talked about as new inventions, new things; the first he ever heard of the process was at the Fair Ground; a well driven by Col. Green (D. Q. 2, 5, 9, 13, 14, 16, 17). Thinks the "Green well" was in the Summer of '61 (D. Q. 18). Was at the Tallman windmill in 1859; saw the well; it was a dug and stoned well and a pump was in it; there was water in the well; this was the first windmill of its kind that he recollects of being put up there; the first he ever heard of its being talked about as a Driven Well was about one and a half years ago (D. Q. 24, 25, 26). Wm. E. Tallman in his lifetime, or Moses Tallman, never mentioned such a thing to him; he was well acquainted with them, and met them frequently; he saw the pipe to the pump go down into the well, does not think it could have been driven (xQ. 81–106); asked if he would swear positively, if he would have heard of a well if it had been there, says he could not swear positively, but in all probability he would have done so.

Orrin Pratt, resided in Preble 26 years; knew Wm. E. Tallman 25 or 26 years ago, and Moses about the same time; had his milling mostly done there (D. Q. 2, 3, 4, 7); knew of Wm. Tallman erecting a windmill, but could not tell the year (D. Q. 9); the first that he ever heard of a Driven Well was at the Fair Ground at Cortland; the first he ever knew put down in Preble was somewhere from '65 to '67; they were put down by Mr. Dunham, of Homer (D. Q. 11–13); the Driven Wells of '65 and '67 were considered new and novel there; never heard that the windmill operated a Driven Well; supposed it to be a dug well, but did not know (D. Q. 18, 19); never heard that Wm. E. Tallman claimed to be the inventor of Driven Wells (D. Q. 27); it had been an unusually dry summer.

Eben Daly, lived in Preble 32 years; am acquainted with Moses Tallman, and his brother Wm. while living, (D. Q. 2, 4); had been "justice of the peace" for eight years (D. Q. 5, 7); never heard of the Tallman well being anything other than an ordinary dug and stoned well, until within a year or two; since the controversy in the present action commenced; the first Driven Well he remembers in Preble were about fifteen years ago; the first was at the depot, made by Mr. Dunham, of Homer; the first he ever heard anything about a Driven Well was when the soldiers were on the Fair Ground at Cortland; when the first wells were made in Preble it was considered a novelty by every one he heard speak of it (D. Q. 47, 48, 49, 51, 52); says the water during the last of August and 1st of September, 1880, was as low as he had ever known it to be; would not wish to say lower.

James B. Share rents a house upon the farm and works for Thomas Ballard (D. Q. 3–4); assisted Mr. Ballard in opening the Tallman well (D. Q. 7). It had been partly reopened to the depth of about 12 feet (D. Q. 12). Mr. Ballard and himself went down together; Ballard went into the well, scraped up gravel and dirt, and witness drew it up (D. Q. 20–22); took out a strainer and piece of sheet iron tubing (articles shown him and are identified) (D. Q. 27–28). His wife came to the well while he was working on it. She saw the articles and they were removed to the barn, and put in the granary that night (D. Q. 32–35); showed the photographs of the tube and strainer; should say they were correct representations. The cards were marked complainants' "Exhibit, A. H. J. M., Notary, Sept. 15th, 1880." He speaks of finding the elevator bucket (xQ. 39); understood that Hiram Weeks had done something toward cleaning out the well down to where he and Ballard found it (R. D. Q. 1). He substantially corroborates the testimony of Ballard as to what was done, the state of the well, etc., etc.

Mrs. Emma Share, wife of James B. Share, was at the Tallman well while her husband and Mr. Ballard were cleaning it out. Mr. Ballard was in the well, shoveling dirt in a pail, and her husband was drawing it up. She saw a section of sheet-iron tubing and a strainer of the character of one that goes on a sprinkling pot at the well. The tubing was very old and a good deal rusted—partly rotted away, more at one end than the other. It lay on the ground perhaps 2 feet from the well on the grass when she first saw it; it was sent up after she got there. She could not tell how long, but knew they drew up a pail or two of dirt after she got there before the sheet iron cylinder came up. Thinks the photographs, Exhibit A, shown her are a correct representation of the tubing and strainer (D. Q. 2–4).

Ceylon H. Lewis, a lawyer, of Syracuse, twenty-nine years of age; had a conversation with Wm. E. Tallman in regard to the well he made at Preble, operated by windmill; it was the Summer or Fall of 1877, and at the request of Noah Parsons went to see Mr. Tallman at his place of business; told him he had been requested to interview him in regard to a well on his farm at Preble, made some years ago; he said he understood there was some excitement in regard to the wells he had there; and that his brother and Mr. Duell had been writing to him or talking to him about it, and that they thought he had something that approached to a Driven Well there at that time; he spoke of their having found a pipe with perforations in it, and said he did not think he should pay any attention to it, because he thought there was nothing of it; asked him to explain in regard to the well; and he said he had dug a well there; sent and got a windmill and pump and put in it; the water soon exhausted; he dug deeper; got a piece of pipe and had some perforations made in it, and put that in the well; then told how he attached it to a pipe that was already in the well, by winding some rags around it and pitching it where the joint was made by their coming together; and that he then made a sort of basin there for his cattle, and had plenty of water; he said his brother had written to him, or seen him in regard to it; and that his brother seemed excited over it; but that he did not think it worth while for him to take any steps in regard to it; that is the substance of the conversation as he remembers it; he (Tallman) said his brother Moses at Preble was the man he referred to (D. Q. 1, 7, 9, 10); the idea that the witness got was that he added this short pipe in order to reach the bottom of the well, after digging it deeper (D. Q. 11); on cross-examination, said he made a synopsis of the facts, and his narrative is refreshed by the synopsis; positive he has not been mislead by the synopsis; asked to detail the interview, says Tallman stated that his brother Moses, who lived down there, and Mr. Duell had been writing him or talking to him about it, and they were trying to get him interested in it; and that they thought *he had something like a Driven Well there;* then said he though he should not pay any attention to it; he gave some particulars in regard to the construction; said he dug a well, got a windmill on there and a pump; think he stated that he sent East and got the windmill; that his supply of water soon gave out; that he deepened it; got a piece of old pipe and had some holes made in it, and put that on the end of the pump pipe ; he mentioned their having found this pipe with perforations in it at Preble, and that he supposed that is what started them to look him up in regard to it ; he described how he attached this pipe to the pipe of the pump by making a sort of joint, and winding rags or canvas around it and pitching it ; that is all the witness remembers of the conversation in regards to the wells (xQ. 98) ; the impression witness got from the conversation was that iron pipe was used to lengthen out the lead pipe.

We cannot better characterize this attempt to show the Tallman well to be a Driven Well antedating Green's invention, then by quoting the language of Judge Blatchford in Hitchcock *v.* Tremain, 9 Blatch., 552 :

> "This is one of those cases so often met with in the history of patents, where an invention, once perfected, has shown itself to be *so useful and so highly appreciated as to have gone at once into so extensive use, that it is inherently impossible it should have been known before, and not have gone into general use.*"
>
> "Its success leads infringers and rival inventors to set up crude and unsuccessful experiments as anticipating it, *and dim recollections are stimulated and conscience strained*, to clothe with living flesh what was an inert and useless skeleton."

We may properly go even further, and say that "dim recollections are stimulated and conscience is strained to clothe with living flesh" what had not even a skeleton for its support. Perhaps no invention has ever been made regarding which it was so easy to conjure up anticipations as this ; owing to the wide extent of territory over which the invention has spread, the infirmity of human memory, the ease with which times and dates are confounded, the strong motive actuating *so many* people who are interested in destroying the patent, the popular prejudice against it by reason of its levying tribute, in some cases on whole communities, it thus is no wonder that phantom wells having no existence at all, except in the imagination of mistaken but willing witnesses; other wells, misplaced as to time, sometimes mistakenly, sometimes, it is feared, knowingly, have sprung up all over the country, hydra-headed, so that no sooner have we demolished one and proved its non-existence, or its existence at a later date, than others take its place and multiply upon us; so that if experience had not rendered us incredulous we should have to believe that the Driven Well had been invented scores of times, by different persons, in nearly every State of the Union, and about every year from 1848 to 1861, and *there* it stops. Nobody but Hunter, Mudge and Suggett have ever pretented to invent it after 1861; their claims have long since been exploded, and they have acquiesced in the result.

We call attention to the many absurdities and contradictions of themselves and each other between Moses T. Tallman and Abram Van Denburg, such as one saying the pitman was of wood, two inches square; the other that it was of iron one inch round; to Vandenburg's statement that the windmill boxes were bolted firmly on the girts, with impossibility of turning to the wind; to statements of both that two men were together at different times, working at a pump in the well—an utter impossibility, as two men could barely stand together in the well without a pump between them, much less with a pump and a timber six by three inches between them.

Such inconsistencies prove the entire unreliability of the witnesses' memories, and the very little they do testify of, in relation to the well itself, which, except as to their saying it was dry, thus showing a need for a Driven Well or some other remedy, does not give any facts that can even by implication be connected with a Driven Well.

We shall make no attempt to analyze the testimony in relation to this well, but call the attention of the Court to a few simple facts:

(1) That *no one witness* has described the making of a Driven Well in the bottom of Tallman's open, dug and stoned up windmill well.

(2) That *no number of witnesses* have described the successive stages of making a well there, which if *put together* would show a Driven Well made by Green's process.

(3) That although Tallman, Van Denburgh and another, say there was no water in the open well at the time the iron pipe was used, we show by Getman, who dug and deepened the well, and was there during the entire time of its making and changing, that there was plenty of water in the open well, and continued to be for at least two years afterwards; by Klock, who occupied the farm within six months after the well and windmill were completed, and for four years afterward, that there was always water in the open well; by Ballard, that there continued to be plenty of water until the well was filled up and destroyed by a freshet some years after.

(4) In corroboration of German, Klock and Ballard, we show by numerous witnesses that when the dug well was reopened in 1880 there was in it, during the dryest time for years, 7 inches of water.

(5) Much ingenuity was exhibited by defendant's counsel in endeavoring to build a theory for us, that the copper strainer being put upon the end of the iron pipe, was then driven into the bottom of the well. *We adopted no theory* on the subject, except that, finding the copper strainer in the well which fitted on the end of the iron tube in one position nearly perfect, that it was probably so used by Wm. E. Tallman in some of his changes made to enable Klock to get water for the stock, and keep gravel out, as Vandenbergh testifies had been pumped; it is a mere implication, but a stronger one than any that defendant's witnesses have established as to any driven well.

(6) It is a significant fact that among all the witnesses who visited the well (and owing to its having been operated by a windmill the entire neighborhood was attracted) none of them ever heard of its being a Driven Well, nor did they ever hear of such a claim, until about 1875 after Driven Well litigation had been years in progress within 8 miles of their locality.

(7) While a number of witnesses for defendants testify that Wm. E. Tallman told them he *was going to drive* a pipe, or *had driven* a pipe in the bottom of his dug well no one of them, or all of them together, testify to having received from Tallman such a description as if combined would have enabled them by following it to have made a Driven Well like Green's.

(8) William E. Tallman's own statement made to Ceylon H. Lewis in 1877 which, as it relates to the manner of connecting the iron pipe to the suction pipe of the pump, agrees with Getman's imperfect understanding of how it was done, proves that he never *even claimed* to have made a Driven Well, *never thought* he had done so, and even after Ex-Com. of Patents Duell had been writing to him, and his brother Moses had got excited over it and over Lawyer Porter's assertion that that old piece of pipe was worth $100,000, "he did not think he should pay any attention to it *because* he thought there was nothing of it (see Ceylon H. Lewis' testimony, Complainant's record, Vol. 1, page 479, D.Q. 9, xQ.98).

Note.—While it is not incumbent upon us to account for this iron pipe or explain its use, it seems evident it was used after the well was deepened, to piece out the lead suction pipe, and perforated, so that its lower end could be inserted into the sand sufficient to steady it with the help of the cross-sticks, as described by Getman, and still leave the punched holes in the water above the bottom of the well; the holes being for the purpose of excluding gravel, which, as Van Denburgh testified, had troubled him. The discharge pipe of the pump was but half an inch in diameter and a tenth part of the holes in the iron pipe, if above the bottom of the well, were amply sufficient to supply the pump with water.

(9) The very pipe itself, if the one that was used in the well, of which there is really no proof, shows that is was never intended to be *driven*, and that this old battered piece of gas-pipe, found among a lot of old iron many years after *any pipe* was shown to be in the well, and it is not shown *when* it came out of it, or if *ever* it came *from* it, or where it had been from 1859 (the last trace we have of *any* such pipe) until 1875, when through the machinations of Duell, an interested attorney conducting cases against the Driven Well patent, and lawyer Porter, of Homer (see Moses Tallman's testimony, xQ. 201), who excited Tallman's cupidity and desire for fame by representing this old tube to embody a fortune. After sixteen years of obscurity totally unaccounted for, this old pipe mysteriously appears upon the scene and by insinuation, implication and hearsay alone, is attempted to be galvanized into life as the very first, old original Driven Well, claimed to have been made as is usual in all these cases, by a man no longer living, and who almost with his latest breath declared "there was nothing in it."

The extreme pertinacity of defendants in endeavoring to make something out of nothing in this case, returning repeatedly to re-examine their witnesses, ostensibly in rebuttal but really re-examining upon the matters in chief, must be our excuse for having taken so much of the time of the Court upon a claimed Driven Well, of which defendants have made no real proofs even if uncontradicted. But for the fact that we prefer that the Court should examine into this Tallman well *de novo* we might well have relied upon the decision of his Honor Judge Blatchford, based upon the testimony of Tallman and Van Denburgh, as given in this case. We quote from that decision :

"All the evidence of Moses T. Tallman goes to show that the well was not a Driven Well, and that there was not in it any such process embodied as that of Green. The testimony of Abram Van Denburgh is not entitled to any more weight. On the other side, the evidence is overwhelming that there was, and could have been no Driven Well at the time and place in question."

VII.—*The So-called Well at Naperville.*

Although proofs by the same witness, Hunt (the only witness on the subject in this case), and also by other witnesses, were made in the Carman case and the Cross case, no reference was made to the opinions filed in those cases ; nor is any reference made in the brief of Mr. Lake, which was prepared and ready to be submitted in this case at the last term. It will suffice to say that the testimony of Hunt shows that this alleged well was not actually within the scope of the Green patent, and that it was simply a punctured hole in the earth—a flowing Spring without any pump or lining tube, and that it did not put into operation the discovery involved in the Green patent. Hunt's testimony can be found, if it be worth while to examine it (and we think it is not), at page 1599, volume 2, of the record. Mr. Hunt says that he made a rod for driving down into the earth with a sledge ; that he had heard that these rods were used in flowing wells, but that "he does not know that they ever were used" (Q. 15, page 1601).

VIII.—*Prior Publications and Patents.*

Of the sixteen alleged prior publications, the Record contains only four. The extract printed on page 1570, of the Record, was distinctly overruled by this Court, in the case of Eames *v.* Andrews. The publication referredto on page 1609, indicates certain tools for some operation connected with agriculture, but there is no description of it except that it is said to be from a certain drawing found in Rees's Cyclopædia, and two publications from that work were considered and overruled in this Court in the case last referred to, so that we need now only consider a single publication, that at page 1571, of the Record. The most cursory examination of this extract, and its accompanying drawing, shows that the device is styled an "earth borer," and it consists of a tube of about ten feet long, having a rod with an auger working up and down in the tube, and the instrument was bored into the loose sand or soil, and was then withdrawn and the object was, that the tube should receive a portion of such stratum, as it may have perforated, and when the tube was withdrawn it should *retain such portion for examination.* It has nothing to do whatever with the Driven Well, and it was ridiculous to introduce it into the case.

Defendant also refers to an Extract from Livingstone's Travels in Africa, wherein a nasty practice of negresses in sucking water from the earth, and spitting it in a gourd, is set up as an anticipation of Col. Green's invention. Rec., p. 1619.

This Extract is beneath notice. Counsel for defendant might with more force refer to the boyish practice of *stealing* cider by means of a straw from the bung-hole of a barrel.

IX.—*Abandonment or Dedication to the Public.*

Under this general ground of defense the appellees make three claims:

First.—That Green, the inventor, voluntarily abandoned his invention to the public and made such long delay in his application for a patent as to forfeit his right to it.

Second.—That Green himself used the invention publicly and consented to and allowed the use of it by others for more than two years prior to his application, and thereby, under any construction of the Seventh Section of the Act of 1839, his patent was invalid.

Third.—That the invention was publicly used *by others* for more than two years prior to the application for a patent, and that such use, though without his consent and allowance, invalidated the patent upon the true construction of Section Seven of the Act of 1839.

We will consider these claims in their order.

First.—As to abandonment or dedication to the public, we regard this defense as conclusively settled by the opinion in this Court at the last term in the case of BEEDLE *v.* BENNETT. That case was argued upon an agreed statement of facts, which appears in full in the opinion of the Court.

The facts which relate to abandonment or dedication thus consented to by counsel in this recent case, were as follows:

> "That the said N. W. Green made his alleged invention or discovery as early as 1861, when he put down on his own grounds, at Cortland, New York, the first driven well for the purpose of demonstrating his discovery.
>
> "That he, at the time of his alleged invention, claimed to have made a valuable discovery and to have invented a new process.
>
> "That he then declared an intention to secure his process by Letters Patent and expressed his belief that large profits would accrue therefrom.
>
> "That he, at that time, having been partly educated at West Point, was engaged in organizing a regiment at Cortland, N. Y., his residence, and was expecting soon to take part in the war of the rebellion.
>
> "That in June, 1861, he put down a well at his house in Cortland, and in October, 1861, he publicly drove a well, in the manner described in his original patent, at the fair grounds near Cortland, for the use of the soldiers in camp, and demonstrated to his own complete satisfaction its success.
>
> "That he gave orders and directions for the construction of proper apparatus for driving such wells, and made arrangements for its transportation with his regiment as it was moved to the seat of war.

"That on the 6th of December, 1861, while in discharge of what seemed to be his duty, he felt compelled to shoot one of the captains of his regiment named McNett; that the shot was not mortal, but inflicted serious injury; that in the then state of the public mind this occasion gave rise to intense public excitement, out of which sprang a controversy of extraordinary bitterness, involving numerous persons and continuing for several years; that the effect upon Green was disastrous in the extreme; that he was suspended from his command, then tried by a court of inquiry at Albany, and reinstated in command; that his regiment, after having, it is said, required the protection of a battery to save it from violence at the hands of evil-disposed people of the country, removed to Washington, where Green was relieved from command, and then dismissed the service, and subjected to military charges.

"That he was, in addition, harassed by the civil suits brought to charge him with a personal liability for articles used by his regiment.

"That he was also arrested and then indicted for the shooting of McNett, and after repeated postponements of the trial, effected because of the excited state of the public mind, was tried in 1866, and the jury having disagreed, was discharged.

"That during this period he also became involved in church difficulties arising out of the shooting of McNett; was expelled from the church and compelled to appeal to the bishop, and also became involved in litigation with the pastor of his church.

"That his efforts during this period to secure a reversal of the order dismissing him from the service were constant and absorbing and were attended with such anxiety of mind as to give rise to the charge that he was insane.

"That this state of things continued up to 1866, during which period he was of necessity often absent from Cortland, at Albany and at Washington, and that he was compelled to devote his entire time to the controversy in which he had become involved, abandoning all other occupation and exhausting all his means.

"That in November, 1865, when Green saw, by an advertisement in the papers, that driven wells were being put down, although he was advised by counsel defending him on the indictment for the shooting of McNett not to apply for a patent, as he would thereby increase the number of his enemies and prejudice him on the trial of the indictment, then about to come on, he nevertheless did then, and in opposition to the advice of his counsel, file his application and assert his right to the invention.

"That the said Green, during this period aforesaid, never declared any intention of abandoning his said discovery and invention, and that, having so made his application as aforesaid, original Letters Patent were granted the said N. W. Green January 14, 1868."

Upon this state of facts the Court held that the law applicable to the question was to be found in the Acts of 1836 and 1839; "that the Act of 1839, as has been repeatedly held, has no effect to invalidate a patent unless there be proved an abandonment, or of the use of the invention for more than two years prior to the application for a patent."

And after briefly reciting the facts in the statement of the case, the Court said: "Those circumstances sufficiently rebut the presumption which might otherwise have arisen, of an intention on his part to abandon and dedicate to the use of the public the invention described in his patent;" and the Court cited with approval the opinion of Judge Benedict in Andrews *v.* Carman, 13th Blatchford, 307-325, which held that under the circumstances disclosed in that case (which were substantially the same as those in the agreed statement of facts in Beedle *v.* Bennett) it would be going far to say that his acts amounted to a dedication of his invention to public use and work a forfeiture of his right to it.

The facts proved in this case, contained in the two volumes of this record, are substantially the same as those in the agreed statement of facts upon which this opinion of this Court was founded. Most of them were proved in Andrews *v.* Carman, and there is no additional testimony to show any express abandonment of the invention, or any conflict with the agreed statement in Beedle *v.* Bennett. In fact, that statement was prepared by counsel on both sides as a summary, as compact as it could be made, of all the facts which have been disclosed in this protracted litigation.

We do not consider it necessary to cite this evidence in any detail. It shows minutely the disaster which affected the inventor's life for years, which occurred on the 6th December, 1861, in the shooting by Green of McNett, on of the Captains of his Regiment, for disobedience of orders; all the circumstances which followed this disaster are set forth in the evidence--his civil arrest, his suspension from his command, his subjection to the court of inquiry at Albany, his indictment for the shooting; numerous civil prosecutions originating from his military position; difficulties in the church with which he was closely connected springing out of the

McNett affair, and from persons unfriendly to the war in which he was so zealous; the renewal in Washington of the military charges against him; his final dismissal from the service; his persistent but useless efforts to secure restoration; his repeated attendance before the criminal Court to postpone his trial; his trial upon the indictment in which the jury disagreed, and his final discharge on the 5th of May, 1866.

The evidence discloses that during all this time, and through this concatenation of troubles, he became discouraged and despondent and almost driven to despair; that he was obliged to neglect almost all ordinary business, and even his domestic affairs, and that his mental condition and his outward circumstances were such as to justify in the fullest degree the opinion of this court that they rebutted any presumption of an intention to abandon his invention to the use of the public.

We add a statement of the names of these witnesses, with reference to the pages on which their testimony will be found, for convenience, if any necessity shall arise to refer to it.

Oscar C. Fox, page 328.
Dr. Judson C. Nelson, page 359.
Gen. Abner Doubleday, page 1000.
Wm. H. Chace, page 340.
C. D. Bouton, page 406.
Heman F. Robinson, page 331.
Joseph L. Galt, pages 346, 605.
Horace Dibble, page 658.
Judge A. P. Smith, page 833.
Judge Hiram Crandall, page 682.
Mrs. Julia A. Green, page 353.
Col. Nelson W. Green, page 559.
Dr. J. Ball, page 729.
James S. Squires, page 747.
Wm. P. Randall, page 767.
Eustace D. Dibble, page 776.
John Wheeler, page 878.
Nicholas H. Haynes, page 442.

Chas. C. Taylor, page 872.
Stephen D. Freer, page 928.
George W. Lason, page 1101.
D. C. McGregor, page 885.
M. M. Waters, page 889.

No express abandonment or dedication is shown. He was prevented from using his invention by the breaking up of his command. He testifies that he intended from the beginning, upon the ending of the war, to take out a patent, and appropriate the invention to himself. The evidence of these facts will be found in the testimony of the following witnesses.

Mrs. Julia A. Green, page 353.
Joseph L. Galt, page 605 (Q. 30, page 607).
Charles C. Taylor, page 874, Q. 21.
Col. N. W. Green, page 559. See page 575, Q. 93, 94.
Dr. J. A. Todd, page 611. See page 613, Q. 23, 24, 25.

Second: As to the claim that this invention was used for more than two years with the consent and allowance of the inventor.

Before alluding to the proofs on this subject, it may be remarked that the proof of such consent must be actual, full, unequivocal and conclusive; that no mere inference will avail, and that nothing short of the full measure of actual proof will suffice to coerce the inventor into a surrender of his rights. The principles governing the subject are fully stated by Mr. Justice Clifford in Jones *v.* Sewall, 6 Fish, 893.

> "Such acts of an inventor are to be liberally construed as acts of an experimental character, nor is the inventor to be estopped by allowing a few persons to use his invention to ascertain its utility, or by any such acts of peculiar indulgence and use to others to use the same, as may fairly consist with the clear intention to hold the exclusive privilege (Mellus *v.* Silsbee, 4 Mason, 111). Where a party has subsequently taken out a patent, the Court is not authorized to give effect to such defense to the charge of infringement, except in case where the proof is clear and cogent (Wyeth *v.* Stone, 1st Story 241).

> **"Abandonment or dedication of an invention to the public being in the nature of a forfeiture of a right, is not favored in law, and Mr. Justice Nelson decided that such a defense could not be sustained unless the acts of the party invoked for the purpose were corroborated by some declaration manifesting such an intention; * * * such an inference is never favored, nor will it in general be sufficient to prove such a defense unless it appear that the use, exercise or practice of the invention was somewhat extensive and for the purpose of gain, evincing an intent on the part of the inventor to secure the exclusive benefits of the invention without application for the protection of letters patent (Curtis on Patents, 3d Ed., 389)."**

The proofs that the invention was used with Green's consent and allowance more than two years before his application, attempted to be made in this case, must be considered and adjudged in the light of these principles.

In the case of *Beedle* v. *Bennett* no effort was made to establish such use. The Court says, "There is no evidence in the record of any use or sale of the invention by Green before application for the patent, and no evidence from which to conclude that any use of any driven well by others before his application was assented to or allowed by him, except in the instances mentioned at Cortland which were merely experimental tests made by himself."

But in this case an attempt *has* been made to prove the knowledge of Green of other wells than those which he publicly made, or caused to be made, by way of experiments.

But it is submitted that such an attempt is a failure, and that the proof is of such a character as to be entirely insufficient to overcome Green's explicit denial of any such knowledge on his part. He denies it generally, and he denies it in detail the statements of the witnesses who attempt to prove it. The chief witness brought by the defendants below to prove this fact was Henry Bates, whose testimony is found upon page 1362, Vol. 2d, of the Record. He was an infringer of Green's patent and was a witness in the Carman case. The substance of his testimony is that in 1863 he was building a house in Cortland; that Green came merely to visit the premises, and that he saw there a Driven Well.

He says in answer to Q. 35 (p. 1364, Vol. 2): "In looking over the house we came to the well and cistern pump which came up in the sink, the well pump on one end of the sink and the cistern pump on the other; and I showed him my arrangement for getting water there. I told him how I pumped the well water from one side and the cistern water from the other side. We pumped the water, he did and I did too. He said that was a good *arrangement* or a good thing, I cannot say which, one or the other. He spoke about which was the well, and which was the cistern, when we first started in; both were clear water; *that is all I remember about the well and pump business just now.*"

In this statement of facts the witness says nothing of the well being a Driven Well, and does not assert that the subject of the character of the well came up on the occasion. But being plied with the further question, Q. 372. "Did said Green known at that time that this was a Driven Well"? Ans. "We talked about its being a Driven Well." Q. 38. "What did you say about this being a Driven Well"? Ans. "*I don't remember now what was said.*"

Even if this stood uncontradicted it would be of little force, and certainly would not amount to the conclusive proof required to produce the effect it was offered for; but Green positively denies that Bates told him any such thing, or that he ever knew there was, prior to 1866, such a well upon Bates' premises (Col. N. W. Green, Vol. 1, p. 571).

In view of the fact that Green was the inventor of the driven well, and had from the first intended to claim and appropriate the invention as his own, it is quite incredible that if Bates, in any definite or explicit maner, called his attention to the fact that he had in his house a well made in pursuance of that invention, that Green would not have remembered it, and would not, at the time of the communication, have acted precisely as he did subsequently when he was informed of the use of such wells by Dr.

Todd in 1865, immediately after which information he made every effort to secure a patent, in spite of the opinion of his counsel, that it was prudent to delay it.

Besides this attempted direct proof, the defendants below endeavored to show by a number of witnesses that they had Driven Wells in use in the village of Cortland, containing two thousand inhabitants, upon the outskirts of which Green resided, but no one of them ventures to bring any one of these wells in any manner to Green's knowledge, except William Winters, and he states that it was not until September, 1865, within four months of Green's first application for a patent.

Suggett also says that there were several wells made by himself and others, put down in Cortland before February, 1864, and some more which he thinks were put down in the Fall of 1863 or the Spring of 1864, but at what period he cannot be positive. His list includes the wells of the witnesses just mentioned.

From the testimony of these witnesses it is sought to be *inferred* that Green must have had knowledge of them.

It is a sufficient answer to say that Green positively denies such knowledge, and all the circumstances surrounding him, and his relations to his neighbors and to the details of domestic life in Cortland at that time were such that no such inference could fairly be drawn even in the absence of such denial. His denial is without any qualification. He declared that he had never seen or heard of any of the wells testified of by these persons, both in the aggregate, and as to each one separately, and asserted that he knew of no such well having been made after the experimental wells, one at his house and the other in the camp of his regiment, until informed by Dr. Todd, in December, 1865, of the operations of Suggett and Mudge under the other patents (Col. N. W. Green, Vol. 1, p. 572, 573).

Nor is there any proof of his previous knowledge of Suggett's or of Mudge's patent. It is incredible that if such proofs had been available, they would not have been made by Suggett and Mudge during the interference trial, when all the circumstances were fresh in the recollection of the witnesses in this case.

It is clearly proved that as soon as Green was informed of the operations of Suggett and Mudge, he hastily drew up, himself, and transmitted to the Patent Office, an application for a patent, through the Hon. Hamilton Ward, then a member of Congress, whose testimony establishes the truth of that statement.

It appears that this application was actually filed in the Patent Office in the month of January, 1866, but was in some manner mislaid. This required the making of another which Green promptly furnished as soon as the necessity became known to him. The latter application was forwarded in March, 1866.

It is proved also that this application was made against the express advice of his counsel in the indictment trial then about to take place. These facts are shown in the testimony of M. M. Waters, Vol. 1., page 894, Q. 27; Dr. J. A. Todd, p. 613, Q. 23-25, page 617; Col. N. W. Green, page 563, Q. 26-29, page 566, Q. 40 47; Hamilton Ward, pages 349-351.

Not only do these facts show that no wells could have been put down more than two years before his application with his knowledge, much less with his consent and allowance, but that he entertained the strongest desire and intention to secure the benefit of his invention by a patent, and had never abandoned his right to it or intended to do so.

They show that he saw in November, 1865, when Todd notified him of the existence of such wells, that in order to save his invention and secure his rights, prudence required a prompt assertion of it on his part, and that although dissuaded by his counsel through fear of its effect upon his personal fortunes in the indictment, he asserted it regardless of all such consequences. So that the proofs not only fail to show that the patent was invalidated by the use of the invention with his consent or allowance for more than two years, but that he did not, in fact, abandon it to public use or intend to do so.

Third.—But it is claimed that in this case there is proof that others used the invention more than two years before Green's application, and that whether they did so by his consent or allowance or not, his patent is invalidated, under the true construction of the Seventh Section of the Act of 1839.

In the case of Beedle *v.* Bennett, the Court say, " Much less is there any evidence to show that there was any use of the invention by others for more than two years prior to his application."

The fact that no such proof was attempted to be made in that case, and no statement to that effect contained in the agreed statement of facts, made it unnecessary there to examine and determine the true construction of the Seventh Section of the Act of 1839.

But it is not denied that in this case there is proof that after the invention by Green in 1861, and his public exhibition of it in Cortland, the rumor of it spread, and the value of it became apparent, and other persons, without Green's consent and allowance, did put the invention into public use without his knowledge. It is insisted that this fact, under the right construction of Section 7 of the Act of 1839, invalidates the patent, and so Judge Love, in one of the two prevailing opinions in this case in the court below, marked with much ingenuity and force, distinctly held.

It may be remarked also that in Egbert *v.* Lippman, 104 U. S., 33, this Court said, " Since the passage of the Act of 1839, it has been strenuously contended that the public use of an invention for more than two years before such application without his consent and allowance renders the letters patent therefor void. It is unnecessary in this case to decide this question of the alleged use of the invention covered by the letters patent to Barnes, as it is conceded to have been with his express consent."

It is therefore necessary in this cause to consider the question thus left open, and to determine whether or not it was true prior to the Act of 1870, that any public use of a man's invention in any part of the country, by any person who may have obtained lawful or surreptitious knowledge of it during experiments of the inventor, must necessarily have invalidated a patent issued prior to the law of 1870, and covered by the law of 1836 as modified by the Act of 1839.

We will consider, first, the course of decision upon the construction of the law concerning this subject as contained in these two acts, and, secondly, the true principles upon which those acts should be construed.

For convenience, we will state the provision of the Act of 1836, and the Seventh Section of the Act of 1839, modifying it, in the language of the statutes.

The Act of 1836 (5 Stat., 117) is entitled "*An Act to promote the progress of the useful arts and to repeal all Acts and part of Acts heretofore made for that purpose.*"

Section 6 provides that any person or persons having described or invented any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement on any art, machine, manufacture or composition of matter, not known or used by others before his or their discovery or invention thereof, and not, at the time of his application for a patent, in public use or sale with his consent or allowance as the inventor or discoverer, and shall desire to obtain an exclusive property therein, may make application, etc.

The Act of 1839 (5 Stat., 355) is entitled "*An Act in addition to an Act to promote the progress of the useful arts,*" and Section 7 provides that

"Every person or corporation who has, or shall have, purchased or constructed any newly invented machine, manufacture, or com-

position of matter, prior to the application by the inventor or discoverer, for a patent, shall be held to possess the right to use, and vend to others to be used, the specific machine, manufacture or composition of matter so made or purchased, without liability therefor to the inventor or any other person interested in such invention; and no patent shall be held to be invalid by reason of such purchase, sale or use, prior to the application for a patent as aforesaid, except on proof of abandonment of such invention to the public, or that such purchase, sale or prior use has been for more than two years prior to such application for a patent."

The Act of July 8th, 1870 (16 Stat., 190), is entitled "*An Act to revise, consolidate and amend the Statutes relating to patents and copyrights.*" Section 24 (which is now Section 4886 of the Revised Statutes) provides that

"Any person who has invented or discovered any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement thereof, not known or used by others in this country, and not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof, and not in public use or on sale for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the duty required by law and other due proceedings had, obtain a patent therefor."

This latter act made radical changes in the whole system, and since that act, it has been held that a patent is invalidated, as a "peremptory consequence," if the invention has been in public use or on sale more than two years prior to the application, although not with the consent and allowance of the inventor. It is insisted by the appellees, and was held by Judge Love in the Court below, that this same peremptory consequence resulted from Section 7, of the Act of 1839, which was merely an addition to the Act of 1836, and was intended to modify the same, by furnishing facilities for carrying it out, and mitigating some of its harsh provisions.

This position is opposed to the whole current of authorities relating to the construction of Section 7 of the Act of 1839, and is unsound in point of law.

The text writers and the courts concur in holding that under the Act of 1839, the public use referred to must have been with the consent and allowance of the patentee as the inventor or discoverer, as provided in the Act of 1836.

Walker on patents (Sec. 102) says:

> " The last preceeding nine sections of this chapter set forth the law of which they treat, as that law existed between the approval of the Patent Act of 1839, and the approval of the consolidated Patent Act of July 8th, 1870. *The consent of the inventor was a necessary element of the facts upon which the old law raised a constructive abandonment.* * * * The modification introduced in the Act of 1870, and continued in force ever since, consisted in *omitting the consent qualification which had theretofore been part of the law of the subject.* The public use or a sale of a specimen of a newly invented thing occurring after its invention by the applicant and without his consent, but more than two years before his application for a patent has under that new law, the same effect on that applicant's right to a patent as it would have had if it had occurred with his consent. *The old law on the subject of consent can still be invoked on behalf of any patent granted before the approval of the act of July 8, 1870.*"

In a note to Section 304 of Merwin on patentability, he says: "*Prior to the Act of 1870, the clause under consideration was followed by the words, 'with his consent or allowance' prior to that time, therefore, this clause did not apply to public use or sale of a precisely similar invention, invented by another; since the Act of 1870, it does so apply.*"

Decisions of the Circuit Court.

In Pierson *v.* Eagle Screw Co., 3 Story, 402 (1884), Judge Story held that

> "To entitle a person to claim the benefit of the 7th section of the Act of 1839, he must be a person who is a purchaser, or who has used the invention before the patent was issued, by a license or grant, *or by the consent of the inventor,* and not by a purchaser under a mere wrong doer;"

and citing McClurg *v.* Kingsland, 1 How., 202, he said:

> " That Judge Baldwin in that case meant to affirm no more than that where the invention had before the patent been used under a license from the patentee, that license being a purchase sale, or use with the consent of the patentee, was within the provision of the 7th Section of the Act of 1839; and he adds "so we have here expressed in a pointed manner the true object and extent of the 7th Section of the Act of 1839, which was to give validity to the patent, and yet to secure the purchaser *from him,* before the patent, the same right to use the same after the patent which he previously possessed."

In Pibbs *v.* Hall, 2 Blatch., 235 (1851), Judge Nelson said, after quoting the 7th Section of the Act 1839:

> "The right to an invention may be forfeited or abandoned in two ways.
>
> "*First*—By *using or vending* the improvement more than two years prior to the application for a patent, and *secondly*—By dedication or abandonment of it to the public use. In the first place the patentee may forfeit his right to the invention if *he constructs it and vends it to others to use*, or if *he uses it publicly himself* in the ordinary way of a public use of the machine, at any time prior to the period of two years before he makes his application for a patent; that is, he is not allowed to derive any benefit from the sale or the use of his machine, without forfeiting his right, except within two years prior to the time he makes his application."

It is plain that Judge Nelson understood this section to be confined in its operation to the acts of the patentee himself, in using his invention or permitting others to use it for more than two years, and that it did not in any way relate to a use by others without his consent.

In American Hide and Leather Co. *v.* American Tool Co., 4 Fish. 285, the patent was granted August 14, 1860, and one of the grounds of defense was that the invention was in public use and on sale with the knowledge and consent of the inventor more than two years prior to the application. Judge Shepley says:

> "Now as to this ground of defense, the Act of March 3d, 1839, modified the law of patents as it existed under the Act of 1836, and as it had previously existed with regard to the public use of the invention, prior to the application for a patent; since the Act of March 3d, 1839, except in case of proof of abandonment to the public, or, what perhaps would be a better term, dedication to the public—though I have used the words of the Statute—no purchase, sale or use of the invention invalidates a patent unless such purchase, sale or use has been for more than two years prior to the application for a patent, but public use or sale of the invention *with the knowledge and consent* of the inventor more than two years prior to his application, does invalidate a patent and make it void," and he adds "the burden of proof is always on the defendant who sets up such prior sale and use, and *he must show it to have been with the knowledge and consent of the inventor*, and to have been public in the ordinary way of a public use or sale of a machine, and not to have been a use for the mere purpose of experiment."

In Russel and Irwin Co. *v.* Mallory, 5 Fish, 632, 645, the patent was granted in 1867, and was under the law of 1839, and the defense was public sale and use for more than two years. The syllabus of the case on that subject is: "Mere public sale and use of an invention before a patent for it is applied for, does not invalidate the patent *unless the public use and sale were with the consent and allowance of the inventor*," and Judge Woodruff says:

> "Prior to the Act of March 3, 1839, such public use without the consent and allowance of the inventor, destroyed his right to a patent; that act relieves the inventor from the danger of such a forfeiture and that is all. * * * Here was no bad faith, no voluntary acquiescence in the manufacture and sale by others, for the proof shows that when he learned that Mallory was making and selling the same lock and latch, he asserted his prior right and in a reasonable time thereafter applied for a patent. * * * Apart from the question of abandonment, the mere fact that prior to the application for a patent some one has obtained knowledge of the invention, and placed the thing invented on sale, whether innocently or fraudulently, does not cut off the prior right."

In Jones *v.* Sewall, 6 Fish. 343, 363, the patent was applied for in 1853, and issued in 1862, and was therefore governed by the law of 1839. In that case Justice Clifford said:

> "Patents otherwise valid may be avoided by proof that the invention was in public use and sale more than two years with the consent and allowance of the patentee before he filed his application for a patent. Inventions ceased to be patentable at one time if permitted to pass into public use or to be on sale for any time, with the consent and allowance of the patentee, before his application for a patent, but the more recent act of Congress provides that such public use or sale shall not have any such effect unless it was continued for more than two years prior to such application. Full proof that the invention had been in public use or sale *with the consent and allowance* of the inventor for more than two years before the application for a patent, is good evidence of such action. Nothing short of proof that the invention was on sale or in public use with the consent and allowance of the inventor for a period exceeding two years, will support such a defense, as the party charged with infringing the rights of an inventor must bring himself fairly within the words of the act of Congress which justify the acts charged as infringement (Ryan *v.* Goodwin, 3 Summer, 518). Such acts, if done without the consent and allowance of the inventor, are plain violations of his rights, and of course will not afford any justification to a subsequent wrongdoer (Wyeth *v.* Stone, 1 Story, 283)."

In McMillan *v.* Barclay, 5 Fish. 189, Judge McKennan, in discussing whether under the provisions of the Act of 1836, as modified by the Act of 1839, the public use made by the inventor himself otherwise than experimentally, as well as by others, evidently assumes that the use of others, to invalidate the patent, must be with the consent and allowance of the inventor; and he cites with approval the remarks of Mr. Justice Story in Ryan *v.* Goodwin, 3 Sum., 518, where he says:

> "It is clear by our law, whatever it may be by the law of England, that the public use or sale of an invention, in order to deprive the inventor of his right to a patent, must be a public use or sale by others *with his knowledge and consent* before his application therefor," and he adds, "Indeed it is difficult to comprehend that a use in public by an inventor himself is not as effectually a public use with his consent and allowance as where his invention is permissibly so employed by another."

In two of these Driven Well cases the same doctrine has been distinctly held. In Andrews *v.* Carman, 13 Blatch., 307, Judge Benedict said:

> "The Act of 1839, as has repeatedly been held, has no effect to invalidate a patent unless there be proof of the use of an invention more than two years prior to the application for a patent, and that such use was *with the knowledge and allowance* of the inventor."

And Mr. Justice Blatchford in Andrews *v.* Cross, 19 Blatch., 294, said:

> "The rule laid down in Andrews *v.* Carman, as to the proper construction of the 7th Section of the Act of March 3, 1839, as deduced from prior ruling, was that that section had no effect to invalidate a patent unless there was proof of actual abandonment, or of a use of the invention with the knowledge and allowance of the inventor, more than two years prior to his application for a patent."

And he goes on to discuss the effect of the evidence with reference to this construction of the statute, holding that there was no proof in that case, showing that Green had consented to or allowed the use of his invention more than two years prior to his application.

Although this question has not been definitely decided by this Court in any case where it was distinctly presented for adjudication, the general drift of the decisions is in favor of the construction placed upon it by the foregoing decisions of the Circuit Courts.

In the City of Elizabeth *v.* Nicholson Pavement Co., 97 U. S., 126, which referred to a pavement put down and used for six years for public travel, the question was whether the invention had been abandoned to the public by such use; it was held that the use was in the nature of an experiment, and did not amount to an abandonment or work a forfeiture, and in the course of the decision Mr. Justice Bradley said: "But if the inventor allows his machine to be used by other persons generally, either with or without compensation, or if it is *with his consent* put on sale for such use, then it will be in public use and on public sale within the meaning of the law." The law he referred to was the law of 1839, the Nicholson Pavement patent having been issued before the passage of the act of 1870. And Mr. Justice Bradley in this case further says:

> "It is not a public knowledge of his invention that precludes the inventor from obtaining a patent for it, but a public use or sale of it. In England formerly, as well as under our Patent Act of 1793, if an inventor did not keep his invention a secret, if a knowledge of it became public before his application for a patent, he could not obtain one. An invention must not have been known or used before the application, but that has not been the law of this country, since the passage of the law of 1836. * * * His monopoly only continues for an allotted period in any event, and it is to the interest of the public as well as himself, that the invention should be perfect and properly tested before a patent is granted for it; any attempt to use it for profit and not by way of experiment, for *a longer period than two years* before the application would deprive the inventor of his right to a patent."

It is manifest that the Court in this case regarded the law of 1839 as referring only to the acts of the inventor tending to forfeit his right to a patent, and to a public use and sale of the invention for his own profit, and with his own knowledge, and not to a surreptitious or fraudulent use of it by others, of which he had no knowledge, and which he could not prevent.

In Consolidated Fruit Jar Company *v.* Wright, 94 U. S., 92, this Court through Mr. Justice Swayne, cites, after quoting the act of 1839, the case of Pitts *v.* Hall, above referred to, with approval, and also refers to the case of The American Hide and Leather Company *v.* The American Tool Company above mentioned, and adds: "The result must always depend upon the purposes and incidents accompanying the acts or act relied upon," evidently meaning that the acts which were to work the consequences of forfeiting the patents under the law as it then stood, were the acts of the inventor himself, either in using his invention personally, or *permitting* others to use it for more than two years before his application.

In Manning *v.* Isinglass Co., 108 U. S., 462, the construction of the act of 1839 was not in issue, but the Court had occasion to refer to the manner of public use before application, and did so in these terms:

> "It is the policy of the patent laws to forbid the issue of a patent for an invention which has been in public use before the application therefor. The statute of 1836 (5 Stat., 117, Sec. 6) did not allow the issue of a patent when the invention had been in public use or on sale for any period, however short, with the consent or allowance of the inventor; and the statute of 1870 (16 Stat., 201, Sec. 24; Rev. Stat., Sec. 4886) does not allow the issue when the invention has been in public use for more than two years prior to the application, either with or without the consent or allowance of the inventor."

Here this Court substantially says that the important change which made two years public use, with or without the consent *or allowance of the inventor, fatal to his patent was made by the Act of 1870, and not by the amendment of 1839 to the Act of 1836.*

Certainly if it had been supposed that the Act of 1839 produced the same effect as the Act of 1870, in this important particular, the Court would have recognized that origin of the change, and could not have attributed it to the Act of 1870.

In view of these numerous decisions, we may confidently assert that Judge Benedict, in the first Driven Well case decided, was right when he said: "It has been repeatedly held that the Act of 1839 has no effect to invalidate a patent unless there be proof of the invention for more that two years prior to an application for a patent, *and that such use was with the knowledge and allowance of the inventor*."

THE TRUE CONSTRUCTION OF THE ACT OF 1839.

But, even without reference to these decisions, we insist that the Act of 1839 cannot be properly construed to have the effect insisted upon by the appellees and held by Judge Love. It was, by its title, simply an addition to the Act of 1836. This section was intended only to *mitigate* the rigorous provisions of that Act, which invalidated a patent through public use, with the consent of the inventor, at any time, even a day, before the application for a patent. It was an Act containing only thirteen sections, many of them making unimportant changes in the provision of the former Act, and Section 7 seems merely to have been designed to give the inventor the right to use his invention himself, or to permit others to use it for two years prior to his application without forfeiting his right, but making the lapse of two years after such permitted use an absolute bar or statute of limitations.

It does not contain any provision like that of the Act of 1870, distinctly declaring that in order to get a patent, the invention must not have been in public use or on sale for more than two years prior to the application; but after providing that every person who has purchased or constructed a newly invented machine, etc., before application, shall have the right to use it, it provides that no patent shall be held to be invalid by reason of *such* purchase, sale or use, prior to the application, except on proof that *such* purchase, sale or prior use has been for more than two years prior to the application. The prior purchase, sale or use is manifestly a purchase from the inventor, or a use by and through his permission and allowance. The principle of the forfeiture referred to in this statute, is *abandonment*. It means that the inventor shall not throw away his right to a patent, and afterwards reclaim it.

The law of 1836 provided that proof that the invention had been in public use or on sale with his consent, should be sufficient evidence of abandonment. Then came the Act of 1839, which provided that such public use or sale must continue two years, in order to furnish such proof. Under that Act he might use or sell his invention as widely as he pleased for two years without showing abandonment, but the fact of abandonment even within that time was open to proof. The Act of 1839 must be read in connection with the prior Act, and so read, it cannot be held that if any person, anywhere in the country, having obtained knowledge of an invention, had used it for two years without the knowledge of the inventor, and while he was preparing for his application, and guarding against abandonment, it would destroy his rights.

It is true that in the Act of 1870, which was an Act to revise, consolidate and amend the statutes relating to patents and copyrights, the policy was adopted that a public use or sale of an invention for more than two years, even without the consent and allowance of the inventor, should work a forfeiture of his rights, but under the Act of 1839, taken in connection with the Act of 1836, to which it was a mere addition, the principle was that the inventor might test his improvement by any methods consistent with its nature and uses, just as long as he pleased, but could not throw it open to the public for gain or otherwise, or allow it to go into public or general use, or put it upon sale for more than two years, or allow others to do so, because if he does these acts it will furnish the evidence pointed out by the statute that he had abandoned his right to a patent, and then he could not reclaim it.

The sum of the matter to this : The act of 1836, repealing all former acts and establishing a new Patent System, provided that an inventor should have a patent if he had not consented to or allowed the public purchase, sale or use of the thing invented, before his application, for any time, however short.

An addition to this act passed only three years afterwards mitigated this rigorous provision, and declared that he should not lose his right to a patent unless *such* purchase, use or sale, consented to or allowed by him, had continued more than two years.

More than thirty years afterwards the act of 1870, establishing another new system and repealing old acts, provided that an inventor should have a patent for his invention or discovery unless it had been in public use or on sale for two years, without any reference to his consent or allowance.

Upon the passage of *this* act for the first time, it became necessary for the inventor so to guard the property in his invention, as to prevent its public use by anybody, anywhere, for more than two years on pain of its forfeiture.

This is the natural and reasonable interpretation of this course of legislation, and so it has been generally held until the promulgation of the opinion of Judge Love in this case. We submit that that opinion is erroneous, and that the long established construction of the Statute should be now finally approved by this Court.

It may be observed that in Ryan *v.* Goodwin, 3 Sum., 518, Mr. Justice Story, in charging a jury on this subject in May Term, 1839, two months after the passage of the act of March 3, 1839, said "our law *requires* that the use or sale should not only be *with the knowledge and consent of the inventor* but that it should be before his application for a patent."

He was evidently not then aware of the Act of 1839, but if that act worked the important change now contended for, it could not have been overlooked. And a few years afterwards (June Term, 1844) the same judge, in Pierson *v.* Eagle Screw Company, above cited, distinctly held that the act of 1839 made no change as to requiring consent or allowance.

And Mr. Justice Nelson in Pitts *v.* Hall (1851) evidently took the same view.

Now, under the construction of the act given by these eminent justices of *this Court*, it was most natural that Green's counsel advised him to delay his application, even after he had obtained knowledge of the use of his invention by others.

It was then regarded as settled that consent or allowance was necessary in order to work a forfeiture.

No suggestion of a contrary view appears in the dicisions before the act of 1870 which, as we contend, first made this important change.

Abstract of Evidence Relating to Delay.

What, then, were the reasons for Green's delay in making application for his patent?

The invention was made in the Summer and Fall of 1861; the application for his patent, the first in January (mislaid in the Patent Office), the second in March, 1866. Why this delay? Were the reasons trivial or extraordinary? Slight and transient, or overwhelming and continuing? And here we approach a highly important question in the case—one of law ultimately, but *that*, depending on a question of fact, to which latter we now call attention.

The late civil war, testing the strength and perpetuity of our government, operated, we know, largely to suspend all business enterprises. Green's delay occurring during that war, was, however, by no means wholly attributable to that. It was that war that, as we have seen through Green, gave birth to the Driven Well. Within a few days after the invention, and an the 6th day of December, 1861, occurred the shooting, by Green, of McNett, one of the captains of his regiment, for alleged mutiny and open, defiant disobedience of orders in camp. The shot was not mortal, though serious. By the rigor and exigences of military rule under which at West Point Green had been educated, he being then in command, this act on his part was, doubtless, strictly justifiable; nay, we might well say it was an imperative duty, and yet, occurring when and where it did, that shooting proved to be, to him, the *great disaster* of his life.

Green's Position, Financial and Mental Condition from 1861 *to* 1866.

I.—The following were, as appears, among the direct and terrible consequences immediately resulting to him personally:

(1) His civil arrest. 2. Temporary suspension from command of his regiment. 3. Court of Inquiry at Albany, resulting in his restoration to command. 4. His indictment for the shooting in Cortland Oyer and Terminer. 5. Sundry civil prosecutions, originating from his position as commandant of the regiment while in Cortland. 6. Church difficulties, springing entirely from the McNett affair, and from persons unfriendly to the war. 7. The renewal, upon his reaching Washington with his regiment, of military charges against him. 8. His final dismissal from the service. 9. His anxious, persistent, yet unavailing efforts to secure a reversal of that order. 10. His repeatedly appearing in the Cortland Oyer and Terminer, for postponing the trial upon the indictment therein. 11. His final trial upon the indictment, at a Special Term of that Court, at which Generals Doubleday, Robinson, Davies and McDougall (some of them by special order of Gen. Grant) appeared as witnesses in his defense, and at which the jury failing to convict, he was, by the advice of his Honor Justice Boardman, who presided at the trial, and the con-

current action of the District Attorney, finally discharged, May 5, 1866.

(*a*) Note how intensely personal and bitter was the controversy throughout; involing all classes, ages and conditions.

(*b*) Green was cast upon a varied self-defense, which, even after his dismissal from the service (June, 1862), required him to be much abroad, at Albany, Washington and elsewhere; absolutely taking up his entire time; so that, as appears, he did nothing whatever, except, as connected with his troubles, and earned not a dollar during the whole period, but exhausted, in the defense of himself and the support of his family during that time, the entire savings of his previous life, leaving him not only penniless, but in debt.

(*c*) During almost the entire period from the McNett shooting (December, 1861), down to Green's trial upon and discharge from his indictment (May, 1866), he (Green) was almost wholly absorbed therein, and in the various troubles and controversies to which that affair gave rise and subjected him, he was much of the time away from Cortland, and, when there, limited his associations mainly to his own family and a few friends. He was, under the adverse fortunes that attended him during that period, not only absorbed in these troubles, but became discouraged and despondent, was driven well nigh to madness and into a condition of utter neglect of all ordinary business, even of his family, as is shown overwhelmingly and without dispute by witnesses of the highest character—Taylor, Waters, Squires (President of the Cortland Bank), Judges Crandall and Smith, Dr. Ball, Dr. Nelson and others. To their account of his mental condition during the period referred to we earnesty invite the serious attention of the Court. Many of the oldest and most prominent citizens of Cortland who testified to this effect in the Carman case have since deceased, and their testimony could not therefore be taken in this case. Among them were Thomas Keator (President of the First National Bank), Honorable Henry S. Randall and Horatio Ballard, both ex-Secretaries of the State of New York.

Oscar C. Fox, p. 328, Q. 10-28.

Dr. Judson C. Nelson, p. 359, Q. 1-13; p. 362, Q. 17-23; Q. 29-37; p. 369, xQ. 76-83; p. 371, x96, 97, 99-102; p. 373, x120-123; p. 377, R. D. 158.

Gen. Abner Doubleday, p. 1000, Q. 1-4; Q. 7-15; Q. 20-23; Q. 25-26.

Wm. H. Chase, p. 341, Q. 10-16.

C. D. Bouton, p. 408, Q. 18-26; x48; x49-52.

Heman F. Robinson, p. 338, Q. 71-73.

Jos. L. Galt, p. 346, Q. 1-4; Q. 7; Q. 10-27.

Jos. L. Galt, p. 607, 32-45; x7-14.

Horace Dibble, p. 662, 44, 48-53; p. 676, x252-259; 219; p. 682, R. D. 334-335.

Judge A. P. Smith, p. 838, 45-57; p. 841, 66-70; x78; p. 843, 90, 91, 93, 94; p. 849, 159-167; p. 850, 170-184; p. 854, 208, 211-213; p. 865, R. D. 329; p. 872, 385.

Judge Hiram Crandall, p. 683, 5-7; p. 688, 33-35; p. 691, 39-47; p. 695, x67-72; xQ 75, 76; p. 700, 113; p. 704, 138, 139, 143; p. 713, 220-223, 225, 227, 231, 232, 235, 236; p. 722, 285, 288; p. 724, R. D. 312, R. C. 314, 319-322; p. 728, R. D. 359, 360.

Mrs. Julia A. Green, p. 354, 9, 11-17; p. 358, 35-44.

Col. N. W. Green, p. 564, 31-36, 39; p. 582, x61, 62; xQ. 67, 70, 74; p. 589, 130-132.

Dr. Jay Ball, p. 729, 1-3, 6-23; p. 733, x55-63; p. 738, 110, 119, 120.

Jas. S. Squires, p. 747, 1, 2, 13-31; p. 765, 48, 49; p. 751, R. x226, 229, 232.

Wm. P. Randall, p. 768, 15, 16, 18, 20, 23, 25; p. 771, x36-41, 42, 44; p. 773, 64, 70; p. 775, 84, 90.

Eustace Dibble, p. 779, 35-42; p. 794, x201, 209; 213, 225-228.

John Wheeler, p. 881, 40, 41.
Nicholas H. Haynes, Vol. 1, p. 442, 1-7; 10-17.
Chas. C. Taylor, p. 875, 27, 29; 32-37; 39-46.
Stephen D. Freer, p. 930, 18-28.
Geo. W. Lason, p. 1103, 19-27; 29, 30.
D. C. McGregor, p. 887, 49-63.
M. M. Waters, p. 889, 1-11; p. 891, 16-20; p. 893, 22-25.
Gen. Abner Doubleday, Vol. 2, p. 1002, 17.

(*d*) All this, we submit, established ample reason for Green's not having earlier applied for his patent; particularly so, since the cause of his delay was a persistent effort on his part truly and devotedly to serve his country—an effort which cost him whatever little fortune he possessed, and now renders the fruits of his invention so much the more needful to his family and himself.

No Abandonment or Dedication to the Public.

II.—Nor is the slightest evidence here offered which shows an abandonment or dedication of his invention to the public use; whereas, evidence to have that effect, must be full, unequivocal and conclusive.

(1) No *express* abandonment or dedication is shown. The breaking up of his command prevented his using the invention for his regiment, as he intended. But that was intended but as a temporary use; his own testimony is that he purposed from the start, upon the war's ending, to take out a patent and appropriate the invention to himself, and that was virtually his declaration also to Taylor and to Galt, as they severally testify, as well as to others who testified in the Carman case, but have since deceased.

Mrs. Julia A. Green, p. 358, 33.
Jos. L. Galt, p. 607, 30, 31.
Chas. C. Taylor, p. 874, 21.
Col. N. W. Green, p. 575, 94, 95.
Dr. J. A. Tod, p. 613, 23–25.

Effect of Delay.

(2) Mere delay, especially under such circumstances as we show, can work no abandonment or dedication of the invention to the public. To give *that* effect to delay, not only must the invention have been used by others, but it must have been so used with Green's knowledge and consent, and for more than two years before his application for the patent (this case falling under the former statute), and here again the proof of the knowledge and consent must be actual, full, unequivocal, clear and conclusive; mere inference will be unavailing, as nothing short of *full measure of actual proof* can possibly suffice to coerce the inventor into a surrender of his rights.

Were Wells made by Green's Process, with his knowledge and consent, more than Two Years before his Application for a Patent?

The defendant brings one Bates, another pirate on Green, who was also a witness in the Carman case, and here testified as he did there, that in 1868 he asked Green in to see the new house he had been building in Cortland; and that, in showing how conveniently the cistern and well pumps were arranged, he told him that his well was a Driven Well. What a memory, to remember so long the exact term he used, a circumstance to him so trivial *if true*, but the wells made by Mudge and Suggett (and Bates says the well was made by Mudge) were, down to the Fall of 1865, known and by Suggett advertised as BORED WELLS. (See Leland, Appendix, page 1.)

Green's Knowledge of Henry Bates's Well.

But Green positively denies that Bates told him any such thing, or that he *ever* knew there was (previous to 1866) such a well upon Bates's premises.

Col. N. W. Green, p. 571, 67-76.

Which would, most likely, best remember ? Bates, what was *then* so immaterial to him, (for he does not pretend that Green then made any claim to the Driven Well as his invention, which he most assuredly would have done had he been aware that Bates had such a well), or Green—what had actually occurred--would have been so vitally material and important to *him*. For the proofs show here unquestionably that he, and he *alone*, is the real first inventor of this driven tube process or well-making, and that he had, from the very first, intended to claim and appropriate the invention as his own. But, suffice it to say, this testimony of Bates, Green squarely, positively denies. And his prompt action in applying for a patent, when informed by Tod that other parties were using his invention, and that, too, in opposition to the advice of his counsel, who thought it would unfavorably affect the result of his trial for the shooting of McNett, then soon to take place, is the strongest corroboration of the truth of Green's statement.

Efforts to Establish Inferentially Green's Knowledge of Wells being made by his Process.

Defendants have also brought as witnesses Lucien Dexter, L. D. Garrison, Henry Woodruff, George N. Copeland, Dr. Bolles, Isaac M. Seaman, Ira V. Hicks, E. Mudge and others, who stated that they had Driven Wells in use in the village of 2,000 inhabitants, upon the outskirts of which Green resided, but no one of them all ventures to bring any one of these wells, in any manner, to Green's knowledge, excepting William Winters, and he not until Sept., 1865, within four months of Green's first application for his patent.

Suggett also says there were several Driven Wells made by himself and others, put down in Cortland, before February, 1864, and some more, which he thinks were put down in the Fall of 1863 or Spring of 1864, but at which, or whether absolutely at either period, he cannot be positive, his list including the wells of the witnesses just mentioned. Their testimony thus leaving it to be *inferred* only that, *possibly*, Green *may* have known of them.

Can it be *possible* that *inference* can be indulged that Green must have known of these wells, though then newly thrown from his position of hopeful, patriotic success, into the seething vortex of continued, increasing and overwhelming troubles, driving him almost to madness?

And then, too, all were interested in keeping such knowledge from him; Mudge, for other reasons, also studiously avoiding him.

Green had no Knowledge of the Use of his Invention until late in 1865.

But, not relying upon the insufficiency of these inferences, Green himself was produced and positively denied ever having seen or heard of any of the wells testified of by these persons, both in the aggregate and as to each one circumstantially, and denied having known of any such wells having been made after the experimental wells, one at his house and the other in the camp of his regiment, until informed by Dr. Todd, in December, 1865, of Suggett and Mudge's operations.

Col. N. W. Green, p. 568, 48-58; p. 572, 77-84; p. 589, x131; 136.

III.—What else has the defense shown as to Green's knowledge of his invention being in public use before his application for a patent? Absolutely nothing! And no particle of proof has been offered that any such use was *with his knowledge or consent* for two years prior to his first, or even of his second and successful application for a patent. Nothing, no word or syllable, showing his previous knowledge of Suggett's or of Mudge's patent. And had there been such proofs available, would not both Suggett and Mudge, during the interference trial, when all the circumstances were fresh in the recollection of the witnesses in this case, their own friends and neighbors, have shown them at that time? This weak attempt, fifteen years later, to show by inference what, had it been true, would then and even now have been susceptible of absolute proof—answers itself.

Green did not consent to the use of his Invention by anyone at any time before applying for a Patent.

IV.—Having shown, then, *an invention;* also Green to be the inventor; further, that, for his considerable delay in applying for his patent there was a meritorious, amply sufficient reason; such an one, too, as left him in condition to be *unlikely* to know, or to take notice, as he positively swears he did not, of the patents that had been obtained upon, or of the use that was being made of his invention, until informed by a particular personal friend (Dr. Todd) in November, 1865. Nothing whatever appearing against that evidence, while it is corroborated by *all* the facts and circumstances which are shown to have surrounded him.

Green's prompt effort to secure a Patent when information came to him of the use of his Invention by others.

V.—We pass, then, to consider what he (Green) did when, as he states, he *was* thus informed by Todd. *Did he then act?*

(1) At once, he says, to secure his rights, he hastily himself drew and transmitted an application for a patent to the Patent Office, through the Hon. Hamilton Ward, then member of Congress, whose

testimony in the case corroborates that statement; showing also, as Ward's testimony clearly does, that the application thus sent was actually filed in the Patent Office in January, 1866, yet was somehow mislaid, and subsequently not to be found, thereby necessitating the making of another, which, as soon as that necessity became known to Green, he was prompt to furnish together with the required fee (borrowed from his brother), this latter application being forwarded in March of that year.

M. M. Waters, p. 889, 1-5; p. 894, 27.
Dr. J. A. Todd, p. 613, 23, 24; p. 617, R. D. 1, 2, 4, 5.
Col. N. W. Green, p. 563, 26-29; p. 566, 40-47; p. 590, x134, 137; p. 593, R.D.Q. 13-15.
Hamilton Ward, p. 349, 1-8.

(2) Now, this action by him (Green), in thus, as soon as he received that information from Todd, at once asserting his right to the invention, and making application for Letters Patent therefor, what does it indicate? Especially what does it, bearing in mind that he thus asserted his right against the express advice of his counsel in the indictment trial (then about to take place), whose fears were that such assertion, *then*, might operate to his prejudice in that trial?

(3) Does it show on the part of Green any intentional abandonment or dedication to the public of his invention?

From his *then* so acting in the assertion of his right, in face of the peril which his counsel suggested, is it not perfectly manifest that he would have *so* acted before if he had sooner received the same knowledge or information, and had been in condition to do so?

(4) Does not his conduct in *then* so asserting his right necessarily demonstrate that he *had* never in the past abandoned his right to that invention, and

never *intended* to in the future ? Nay, more, does it not show that, acting from his *intuitive* convictions, he really proceeded upon a much wiser and safer course of conduct than that to which the advice of his faithful and trusted friend and counsel would have committed him ; in short, when that information was communicated to him by Todd, in November, 1865, and when, as he then saw, that in order to the saving of his invention to himself, if absolute necessity *did not*, yet prudence at least *did* require a prompt assertion of his right thereto ; and when he did then promptly and fearlessly assert it, regardless of all such consequences, do we not see acting the same original, self-confident, intuitive man, whose powers had been concentrated and employed in the invention to which he was then asserting his right with equal confidence, intuition and reliance upon himself ? And did he not really do all that can *ever* be required of an inventor ? Should *more* be required of *him* in the circumstances under which he has been placed ? Was not his prompt, fearless action *then*, when that information from Todd came, *all* that *law*, justice or reason requires ? On all these points we again submit to the convictions and judgment of this Court to ratify the concurrent decisions of this and other Courts upon this question.

In Conclusion.

Let us say that it seems a great and wicked hardship that the appellants should have been put to the enormous expense of conducting this litigation, because there is not a single item of testimony of any weight whatever contained in this case, which had not been previously passed upon by from one to sixth or eight distinguished Judges, and in all material points by this Court. The only item of proof in this case that has not been frequently overruled is that which relates to the so called Milwaukee well, and that is precisely the kind of well known and conceded by all to have been an old fashioned artesian well ; to have compelled these complainants to endure the hardship of this prosecution, to compel them to slay the slain over and over again, could only have been required by parties prompted by motives of malice.

We ask that the decree below be reversed, with costs.

Respectfully submitted,

JOSEPH C. CLAYTON,
ANTHONY Q. KEASBEY,
Of Counsel with Appellants.

Newark, N. J., October 3d, 1887.

SUPPLEMENTAL BRIEF

ON

Woodruff's Claimed Driven Well.

Some stress may be laid upon the testimony of Henry Woodruff, who undertakes to swear in 1880 to a casual conversation had with Colonel Green nineteen years before. Such testimony, at the best, must be of little consequence, and it needs only a careful scrutiny of the statements of Mr. Woodruff to show that no importance whatever is to be attached to it. It is to be found in Vol. 2, 1346, etc.

Woodruff lived in Cortland and he saw the well driven by Colonel Green on the Fair Ground.

He says that Byron Mudge, who was in Green's regiment and saw his experiment, tried to make a well such as he had seen Green make on his, Woodruff's, premises in the Fall of 1861. That he went away and returned in 1862 and finished it successfully. He was asked whether Green knew of this driven well (Q. 38, p. 1348), and answered: "I suppose that he did from the questions he asked me."

And being asked what questions he did ask, he said: "He asked me if my well was completed and worked satisfactorily, and I told him it did, and he said he was glad to hear it and was glad it proved a success, for if the regiment should get as General

Mulligan's did, they could get water." Being asked when this was, he said: "I think it was after Green returned, I know it was." And being asked whether it was in 1862, he said: "I think it was" (Q. 43).

He also said (Q. 47) that Green had spoken to him about it when Mudge made the first attempt. And when he was asked how Green knew that Mudge had afterwards made this well in 1862, he answered: "My impression is that Green said that Mudge had told him."

Being asked (Q. 57) whether he talked over with Green as to how Mudge made the well a success, he was unable to answer definitely, and being pressed by this leading question (Q. 56), "Was it at any of these conversations in 1862 talked over between you and Green as to how Mudge made this well?" he says, "*I don't recollect anything of the kind.*"

This was all on his chief examination.

On his cross-examination, page 1352, he shows clearly by his answers that he had no knowledge of how the well was made by Mudge; that he was not present during all the time it was constructed.

He says on page 1353, "that the alleged conversation with Green in 1861 was at a casual meeting in the street, which occupied a few minutes."

He says on page 1355, "that the second meeting was also a casual one, that he had no business with Colonel Green on the occasion." And when asked, cross-question 124, "Will you swear positively that the second conversation referred to in the testimony occurred in 1862?" he answered, "I think it was, I couldn't be positive."

Mr. Woodruff also on his chief examination, page 1349, in answer to the leading question, "Were Driven Wells a public and common thing in Cortland previous to 1864 and after 1862?" said, "I think they were." And yet on cross-examination, page 1355, see Q. 125, when asked to state what wells were in use to his own knowledge, he replied, "Well, I don't know that I remember positively.

I heard that Mr. Suggett was putting them down. I cannot remember any particular one."

It appears that this witness, Woodruff, testified in the interference case and also in the case of Green *v.* French in New Jersey. The only comment that need be made upon his testimony is that so far as it seeks to fasten knowledge of Driven Wells upon Colonel Green in 1862, it is of a character to have no weight against his explicit denial of such knowledge. It was a mere casual street conversation attempted to be remembered after nearly twenty years. If any such conversation occurred, it related to an experimental well attempted by one of Green's officers shortly after he made his own experiment. The time when the conversation occurred is not stated definitely by the witness. Indeed, it would be utterly impossible, after such a lapse of time, for a witness to be accurate as to dates, without some definite record of the conversation or something with which to associate it.

Here the witness admits that both alleged conversations were casual, that they were very short, that they were connected in no manner with any business or any subject of interest, and that there was nothing whatever to impress them upon the mind, much less to leave an impression for twenty years.

This whole testimony of Woodruff was evidently regarded as unimportant by Judge Nixon in the case of Green *against* French, and we submit that it is not worthy of any consideration by this Court, in considering the question of prior use with Colonel Green's knowledge.

It is evident from Woodruff's own testimony, that the conversation with Green, which he testified of (if it ever occurred), must have been in the Fall of 1861, before the 76th Regiment left Cortland, under the command of Gen. James Wood—Green having been suspended from the command; Woodruff's answer to Q. 40, page 1348, makes this fact self-evident; the question was, "Did you have any other conversation with him about it?" A. "He said he was glad to hear it, and was glad it proved a success; for if they (the Regiment) should get caught as Gen. Mulligan did, they could get water." The weakness of this testimony is, that Woodruff's well, according to his own testimony, was not made a success till late in the Spring of 1862 (D. Q. 16). In March, 1862, Green's connection with the 76th Regiment ceased (Robinson, page 339, Q. 74), and all thought of using Driven Wells for the benefit of the 76th Regiment had ceased before the departure of the Regiment from Cortland, the 17th or 18th of December, 1861 (Judge Smith, page 839, Q. 54 & 55). Owing to difficulties in the Regiment, the material for making wells did not go with the Regiment, and never left Cortland.

NOTE.—It is altogether improbable that any such conversation as attributed to Green, could have occurred after March, 1862, as his special interest in the 76th Regiment had then ceased; nor could it have occurred in Fall of 1861, for the reason that by Woodruff's own showing, the well was not then a success.